

**Nature and Outdoor Education for
Elementary Students with Learning Disabilities**

A Project Presented to
The Faculty of the School of Education
California State University Channel Islands

In Partial Fulfillment
of the Requirements for the Degree
Masters of Arts

By
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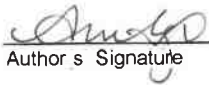
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Nature and Outdoor Education for Elementary Students with Learning Disabilities

Title of Item
Environment-Based-Education/ Nature and Outdoor Education

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Abstract

The purpose of this study was to measure the effectiveness of an Environment-Based-Education Curriculum in the areas of self-esteem, behavior, and academics with elementary students with learning disabilities. The program included taking sixteen Nature Trips throughout the community all revolving around the theme of sustainability. There were eight participants ranging from 2nd-5th grade. Lessons were multi-sensory and students collected data in their Nature Journals. Students made significant gains in their self-esteem, ability to focus, and in their academics.

Keywords: Nature and Outdoor Education, Environment-Based-Education, Special Education

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*Teaching children about the natural world should
be treated as one of the most important events in their lives.*

--Thomas Berry

Chapter One

Introduction

Background and Need

The 21st century is proving to be an exciting time for technological exploration and discovery. The speed of which we are able to gain knowledge on any subject matter has sparked an era of tremendous creativity. However, society's insatiable need for immediate access to information has also created challenges in our educational system. English author Sir Ken Robinson, an international advisor on education, said in 2010 "Humans are living in one of the most stimulating times in the history of the Earth."

Children are now exposed from infancy to a barrage of cell phones, high definition televisions, Internet, video games, and marketing ploys that support sedentary activities. Over exposure to technology may in fact contribute to a rise in "direct attention fatigue". Direct attention fatigue is "marked by impulsive behavior, agitation, irritation, and inability to concentrate" (Louv, 2008). Although the brain is strong and flexible, "Neurologically, human beings haven't caught up with today's over stimulating environment," said Michael Gurian, a family therapist and best-selling author (Louv, 2008).

Research indicates that 20-30% of children are unable to conform to the demands of the present educational system (Louv, 2008). The research team of Stephan and Rachel Kaplan further confirmed the correlation through their well-established attention

restoration theory which highlights brain chemistry changes and how the “neural inhibitory mechanisms become fatigued by blocking competing stimuli” (Louv, 2008).

In this century, we are faced with the dilemma of bridging our technology-led lives with an obsolete educational approach. Since the educational system has not altered its approach since the industrial revolution, it is safe to assume that some students may not engage in the educational process because the method has become antiquated. The approach relies solely on direct attention and may appear slow moving, lacking in aesthetic experience and devoid of a connection with the present, all of which is highly important to today’s youth.

There is a need to explore how to restore the students’ interest and relieve them from directed-attention fatigue. Lack of attention could lead to poor grades, which could effect self-esteem, and result in negative behavior. However, recognizing this imbalance could be a significant advantage when rethinking the teaching approach.

The answer may lie with how to increase the fascination factor of the subject matter we are trying to teach. “If you can find an environment where the attention is automatic, you allow directed attention to rest. And that means an environment that’s strong on fascination.” The fascination factor associated with nature is restorative, and it helps relieve people from directed-attention fatigue. Indeed, according to the Kaplans, nature can be the most effective source of such restorative relief (Louv, 2008).

Specifically, the childhood link between outdoor activity and physical health seems clear, but the relationship is complex. (Louv, 2008) Thus, rethinking how the education system can capitalize on the focus on environment will require changes not only in the content but approach.

The content of environmental education benefits both mental and physical well-being. In the recent years, there has been a growing trend in environmental awareness. The popularity of being “green” or “natural” has caused a wave of business redesign. Several products now claim to be “eco-friendly” or “organic” and appear on merchandise that has no connection to the true meaning of nature or environment. The deluge of these pseudo-environmental messages has in fact diluted the very essence of what “environment” really means. There is a lack of a real life connection to the subject matter and the message has become a marketing fad that reaches children on a daily basis. The problem with branding nature and/or the environment as a fad is that the connection to nature has been shown to be vitally important to mental and physical health.

I believe that providing a multi-sensory approach that includes the natural outdoors will elicit positive results in regards to information retention and application. In addition, I theorize that children with special educational needs will benefit greatly from an educational environment that is less restrictive, allows for physical engagement, encourages self-expression and develops critical thinking skills.

Research indicates that a key to learning is being invested in what you are learning. Textbooks and teachers often have an overwhelming amount of information to share, but so little can be remembered. Memorizing something is different than learning it. Many behaviorists believe that in order to learn something behavior needs to change (Ormrod, 2008). Often times, children with learning disabilities are challenged by behavior problems. They are vulnerable to direct attention fatigue, and suffer from mental disorders such as ADHD. This disorder often develops before age seven, and is usually diagnosed between the ages of eight and ten. Children with this disorder are restless and

have trouble paying attention, listening, following directions, and focusing on tasks. They may also be aggressive, even antisocial, and may suffer from academic failure (Louv, 2008).

Behavior change can be especially challenging for these children and learning can become a strenuous, painful task that is further compounded by a lack of connection to the subject matter. A stimulating, multi-sensory environment that provides a direct experience engages these children with the subject matter because it allows for multiple intelligences to develop simultaneously. It also increases the likelihood that each individual student will connect with the content whether they are better suited to auditory, visual, or other sensory learning. This connection empowers the student; they lose the fear of being criticized and learning begins.

An increasing number of educators are committed to an approach that infuses education with direct experiences, especially of nature. The basic idea is to use the surrounding community, including nature, as the preferred classroom. For more effective education reform, teachers should free kids from the classroom. That's the message from Gerald Lieberman, director of the State Education and Environmental Roundtable, a national effort to study environment-based education (Louv, 2008).

Intermittently "freeing" children with learning disabilities from the classroom setting will not only enhance their learning journey, it will also connect them to their community. This connection is imperative in empowering the student and helping them find their place in society.

Purpose of the Study

The purpose of this study was to create a program that increased the mental and physical stimulation of students with learning disabilities by developing a cross-curricular course that centered on Environment-Based-Education (EBE). Typical resource programs do not always center on hands-on activities or experiential learning, which is an injustice for students with special needs. However as an Education Specialist, I was aware that children with learning disabilities learned differently and what was needed was a program that provided them an opportunity to engage in the educational process in a multi-sensory way. California State University Channel Islands (CSUCI), the Meadows Arts and Technology Elementary School (MATES), MATES Board and staff, and the parents, whose children were enrolled in the school and had special needs, approved and supported the project. My curriculum supported the common agenda of these multiple stakeholders by providing a format that enhanced the learning experience by providing depth and structure to the educational content. Through a variety of experiential and innovative activities that focused on environment, I observed my students as they enthusiastically engaged in the educational process. Their curiosity of their natural environment blossomed and that was the key catalyst for learning.

Approach

In order to create a successful program, my teaching approach allowed for multi-sensory activities built on positive interactions that were enriching and provided aesthetic experiences for the students. In addition, the content was current and introduced in a positive climate so it would be associated with positive emotions. Research shows that when students associate academic subject matter with positive feelings, they are more likely to pursue it of their own accord (Ormrod, 2008). As discussed previously, when behavior change occurs, this allows students to be more receptive to education.

Understanding the developmental readiness of elementary students was a primary consideration when designing an enriching program. Children at that age level are at a critical learning period “in which particular kinds of environmental stimulation have their greatest, and perhaps only, impact in certain aspects of brain development” (Ormrod, 2008).

According to Grant and Littlejohn, “Children learn best through active exploration of the world around them, and for this reason, the hands-on multi-sensory, multi-disciplinary nature of environmental education is particularly well suited to meeting the developmental needs of students in the elementary years.”

My program consisted of taking sixteen different “Nature Trips” focusing on opportunities provided in the community over the course of the school year. These Nature Trips were different from standard field trips. They not only provided opportunities for students to engage in guided outdoor activities which focused on the definition of sustainability, they also engaged students in an enriching scientific process where they

predicted outcomes, collected field data, compared and then discussed results. The process instilled curiosity, responsibility and most of all ignited critical thinking skills that are often minimized or suppressed during a directed teaching approach. These higher-level thinking skills supported Blooms Taxonomy of Learning Domains and stimulated the cognitive (*Knowledge*), affective (*Attitude*) and psychomotor (*Skills*) behaviors of learning. The curriculum encouraged the students' synthesis and evaluation of the material presented, as well as provided the teacher with a unique opportunity to evaluate the effectiveness of the teaching approach.

Experiences were chronicled in student's "Nature Journals" much like a research project. They were also encouraged to examine the effects of their own behavior in relation to the natural world and understand their personal impact on the environment.

These "hands-on" learning opportunities provided a forum for students with learning disabilities to learn functional skills that increased their independence, self-esteem and ultimately enhanced their quality of life. Studies have shown that replacing indoor space with a natural outdoor setting, helps students on an emotional, physical and mental health level ('Green' exercise quickly 'boosts mental health', 2010). It also provides a basic framework that aids in the ability to focus (Grant & Littlejohn, 2010).

My teaching approach also included the Ten Teaching Green Principles established by Grant and Littlejohn, authors of *Teaching Green: The Elementary Years*.

The principles are as follows:

1. Students should have opportunities to develop a personal connection with nature.
2. Education should emphasize our communications with other people and other species, and between human activities and planetary systems.

3. Education should help students move from awareness to knowledge to action.
4. Learning should extend into the community.
5. Learning should be hands-on.
6. Education should integrate subject disciplines.
7. Education should be future oriented.
8. Education should include media literacy.
9. Education should include traditional knowledge.
10. Teachers should be facilitators and co-learners.

Environment-Based-Education Curriculum vs. Conventional Education Curriculum

My decision to choose an Environment-Based-Education Curriculum versus a Conventional Education Curriculum for elementary school children with learning disabilities, was based on the fact that it provided a concrete context which I knew would be readily embraced by the students. Children with learning disabilities benefit from different teaching modalities due to their need for multi-sensory activities. It addresses their individual multiple intelligences and it also provided children of that developmental age with a physical outlet for personal expression.

Environment-Based-Education (EBE) uses the local environment and the natural world as the basis from which a multitude of subjects can be integrated into the lesson plan. The EBE approach allows students to observe and learn within an engaging context. The core tenet of environment-based learning is that you learn by doing. When students learn by doing they can directly relate to the information. They can touch, smell and feel it. It's automatic engagement to the material. This approach has proven to cut down on discipline issues and to aid in the transfer of knowledge. (Sustainable Communities, 2012)

In contrast, the Conventional Education teaching approach is linear. The student is required to "remember" and regurgitate what he/she is being told by the teacher. Subjects are introduced in a manner that may appear intangible for elementary school children, especially for those with learning disabilities. The content can sometimes be viewed as being too "foreign, exotic or untouchable" for it to be appealing.

Figure 1 illustrates the main differences between Environment-Based-Education Curriculum and Conventional Education Curriculum. (Sustainable Communities, 2012)

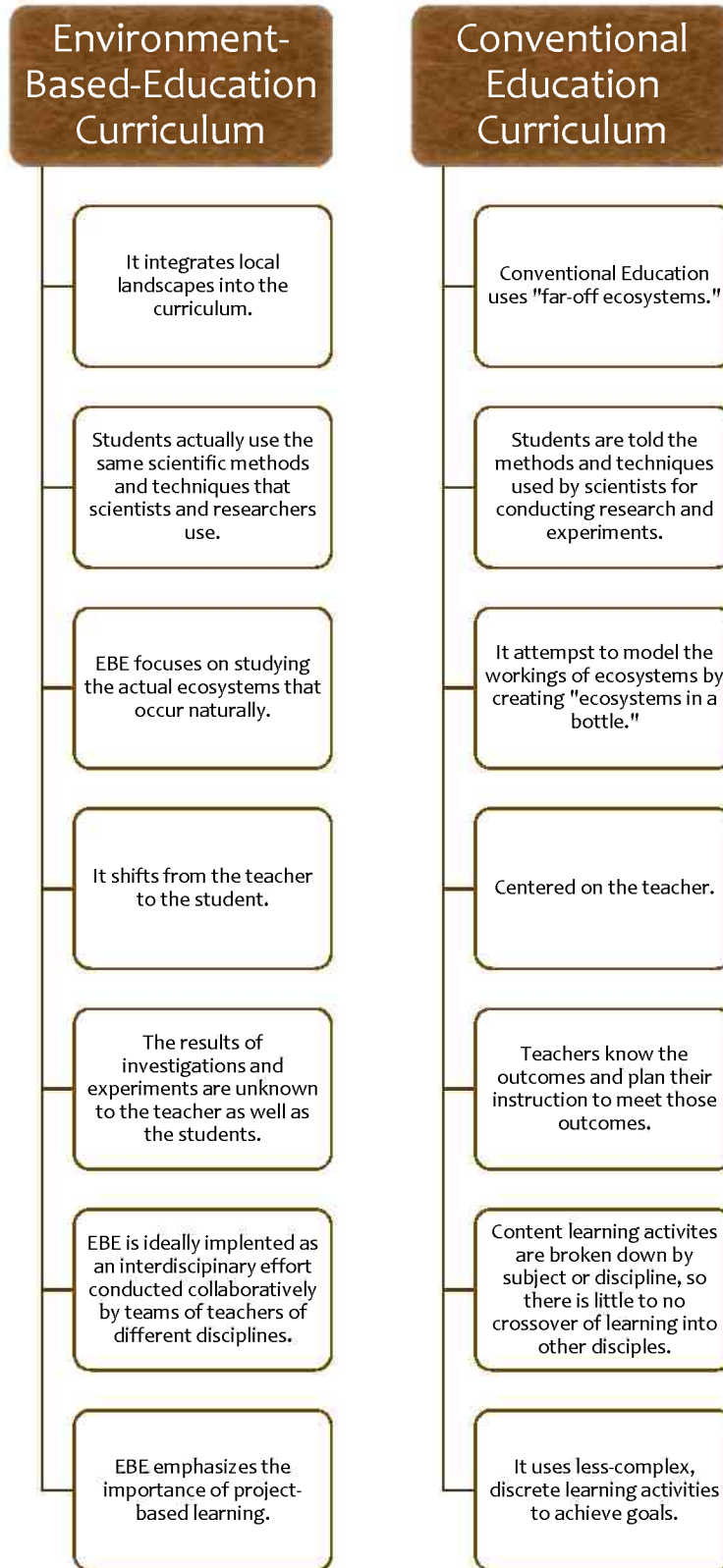


Figure 1. Environment-Based Education Curriculum vs Conventional Education Curriculum

Research Questions

In my study, I answered the following question: *How does using Environment-Based-Education Curriculum and the natural outdoors help elementary students with learning disabilities improve their (1) self-esteem, (2) attitude/ behavior, and (3) academics?* By utilizing the outdoors and an Environment-Based-Education Curriculum approach, my results were expected to have positive growth outcomes.

In order to be able to answer my research question, my program centered on the theme of sustainability. Students were given the task of generating a definition for sustainability in which they used as a rubric for their experiences. By doing this, they practiced their critical thinking skills, had a sense of ownership and independence, and they were able to remember and retain the understanding because they defined it for themselves. Nature Trips played a crucial role in their comprehension of this difficult term. This was where the students were able to observe “sustainability” in action; therefore, the definition went through monthly changes so students could redefine their understanding of the topic. In addition, this opened up several discussions about whether various conditions and actions that they observed were truly in fact “sustainable”. As a result, this inspired an inquisitive nature in the students about society, the environment, and what they could do to “make things last longer in their natural habitat.”

Students were given three essential questions to answer over the course of the year. These three essential questions are as follows:

1. *What is sustainability?*
2. *How do humans have an impact on their local community?*

3. *What can we do to make MATES more sustainable and have a lower negative impact on the local community?*

As students collectively answered these questions through collaboration and discussion, they became more engaged in the learning process and the development of their intellect was obvious as they grew noticeably empowered. This was evidenced as they began sharing information with family members and friends without being prompted. Transference of knowledge was an unexpected benefit that further supported the positive outcomes of this project.

My program focused on individual academic excellence and presented opportunities beyond the school campus so students with learning disabilities had an equal opportunity to engage in the curriculum. My teaching style addressed the California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects, but in an untraditional, creative, and highly experiential way. By having a hands-on approach, it became evident my students were benefiting as I observed them become more focused, inquisitive and better behaved. This subtle, yet noticeable change in behavior was the fertile soil necessary for learning to take root and the germination of the seed of sustainable change to take place. The children were able to develop a personal connection with nature, thus instilling the idea of personal responsibility across multiple areas of their own lives.

Ethical Considerations

The risks of the program were disclosed to the participating institution (MATES), the parents, and the staff. Since students would be off campus and performing outdoor activities, they would have to develop their self-awareness in order to avoid getting hurt on the trail. To prevent injuries, students were given lessons on outdoor safety. Parents were able to volunteer and accompany students on outings to increase supervision. Rewards charts, behavior charts and visual schedules were also utilized when needed. Students also had to come prepared to each Nature Trip wearing appropriate clothing for the specific outing.

Chapter 2

The Framework

Basic Framework

The framework of this project was built upon the “Teaching Green Principles” highlighted in the *Teaching Green: The Elementary Years* (Grant & Littlejohn, 2010).

They are as follows:

Teaching Green Principles:

1. Students should have opportunities to develop a personal connection with nature.
2. Education should emphasize our communications with other people and other species, and between human activities and planetary systems.
3. Education should help students move from awareness to knowledge to action.
4. Learning should extend into the community.
5. Learning should be hands-on.
6. Education should integrate subject disciplines.
7. Education should be future oriented.
8. Education should include media literacy.
9. Education should include traditional knowledge.
10. Teachers should be facilitators and co-learners.

In addition, designing an Environment-Based-Education Curriculum (EBEC) for elementary students required knowledge of a child’s developmental readiness for learning. Since younger children and older children learn differently, Ruth A. Wilson, author of the article “Getting An Early Start: Environment Education for Young

Children” said “Environmental education in the early years focuses on exploring and enjoying the world of nature under the guidance and with the companionship of caring adults.” She goes on further to explain in the article that children at that age “learn primarily through their senses and hands-on manipulation and exploration”; therefore, a child’s exposure to the outdoors needs to be built upon positive experiences and those experiences play a crucial role in “shaping lifelong attitudes and behavior towards the natural world.” Thus, when designing and implementing the EBEC I followed her four basic guidelines:

1. Begin with simple experiences.
2. Provide frequent positive experiences outdoors.
3. Focus on “experiencing” rather than teaching.
4. Demonstrate enjoyment of and respect for the natural world.

Not only did the program adhere to the above guidelines but it also laid the foundation to teach environmental citizenship. To do this, Carole Basile and Cameron White, authors of “Young Children as Environmental Citizens” suggest (1) teaching the basic science concepts that children need to understand how natural systems work; (2) nurturing children’s respect for all living things; (3) facilitating problem solving, decision making, and critical thinking; and (4) modeling environmental stewardship.

When teaching the basic science concepts that children need to understand about how natural systems work, it was important to use natural places such as backyards, schoolyards, and local parks to introduced them to the environment. When students work closely to a familiar place, they were more invested in it. It was also critical to integrate and make the connections between other subjects such as math, language arts, and

history. If students saw the interconnectedness they might be more inclined to study and be motivated to learn about subjects they had no initial interest in. Furthermore, it was important that the teacher and student had a two-way communication style so they were learning together. This approach enhanced the dialogue between teacher and student, and allowed students, although receiving indirect guidance, to come to their own conclusions.

When teachers model behavior, it provides students with visual instruction. For instance, a student is more likely to throw a plastic container in the recycling bin if they see a teacher performing that behavior and not just talking about it. Nurturing children's respect for all living things can also be primarily taught through good modeling.

Problem solving, decision-making and critical thinking skills are essential for a successful integration into today's workforce. Young children have problems thinking globally therefore, encouraging students to initiate engagement by tackling problems that they see in their own community can be an important first step and possibly a catalyst to developing an understanding of broader world issues.

Lastly, modeling environmental stewardship means "practicing what you preach, and then allowing children to take stewardships that are meaningful to them" (Grant & Littlejohn, 2010). By discussing passionate topics and fostering environmental literacy it will aid in children becoming global citizens who can make thoughtful decisions about human interactions with the environment.

Setting: Participating Elementary School

Meadows Arts and Technology Elementary School (MATES) is a charter school located in Thousand Oaks, California. MATES Charter infuses the curriculum with arts and technology and depends on highly qualified teachers and community volunteers to sustain the success of the school. The school was founded in 2009 and it is currently in its fourth year as a charter. It is comprised of approximately 340 students, which 77% of the population is white, 9% are Hispanic or Latino, 4% are Asian, and the final 10% are a combination of American Indian, Filipino, and Native Hawaiian. Of its students, 7.4% are English Language Learners, 10.3% are Socioeconomically Disadvantaged and 5% have Learning Disabilities (Meadows Arts and Technology Elementary School , 2012). In the MATES philosophy, we “believe that children deserve our best effort in providing a safe, stimulating, enriched learning environment where every child thrives” (Meadows Arts and Technology Elementary School , 2012). It was important for my Environment-Based-Education Curriculum (EBEC) to maintain the integrity of the MATES philosophy in order for this curriculum to be used in consecutive years. The project has stimulated growth in ecological awareness and sustainability within the school community.

The curriculum at MATES is resource-based, yet does not limit itself to pencil and paper tasks. Instead, teachers go beyond the traditional way of teaching to infuse a high quality education program with periodicals, electronic research, library selections/primary resources, teacher-created lessons, field trips/field study, resident artists/professionals, community resources, and electronic field trips. My integration of the EBEC curriculum respected the school’s philosophy and incorporated many of the

resources that were currently being used at MATES. This helped students seamlessly transfer their previous knowledge and apply it to the new nature material. The EBEC created a learning environment that not only enhanced the MATES curriculum, but supported students with learning disabilities by taking a multi-disciplinary and multi-sensory approach. The program taught students to engage in their world by questioning and experimenting; supported creative problem solving; encouraged self-expression and most importantly, helped them address the fear of learning or experiencing the unknown. As the interest and enthusiasm grew with the students, the depth of learning, communication, and higher-level thinking skills were reflected within the classroom and assignments.

Participants

A total of eight students with learning disabilities, who qualify for resource services, participated in the EBEC. These eight students were enrolled in the beginning of the 2012-2013 school year, ranged from 2nd – 5th grade and were comprised of five girls and three boys. The students were engaged in campus exploration and taken off campus to participate in Nature Trips. They were encouraged to critically look at their immediate surroundings, review past learning opportunities, and prepare for upcoming trips.

Since the Resource Program used a pullout model, it was important to collaborate with the general education teachers to strike a balance between the two classrooms, the curriculum, meeting the student's Individual Education Plan (IEP) goals, and which California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects were being covered in the EBEC. Communication was a necessity, and the program would not have flourished if the students felt overwhelmed with assignments because they were absent one day from class nor would the teachers feel like they had prepared the students appropriately if they didn't feel confident in the EBEC. All things considered, collaboration and communication were key elements to the success of the program.

Student Profiles

Olivia

Olivia was in second grade and wanted to be Indiana Jones when she grew up. She loved to tell stories in an extremely detailed fashion, had a penchant for horses, was considerate of others and was very determined. Olivia could also become easily frustrated, was inflexible when challenged, and was very systematic in her behavior. She had been diagnosed with a Specific Learning Disability (SLD) and spends approximately 300 minutes a week in Resource for Reading, Writing, and Mathematics.

Table 1

Olivia's IEP Goals for 2012-2013

| IEP Goals |
|---|
| <u>Writing Goal:</u> Given a graphic organizer, Olivia will write a paragraph using clear and cohesive sentences with 85% correct for a trimester as measured by work samples and & observation record. |
| <u>Reading Goal:</u> When reading a selection aloud, Olivia will read with a manner that sounds like natural speech (rate, smoothness, expression) at 70 correct words per minute, on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples and observation record. |
| <u>Mathematics Goal:</u> Olivia will know her addition and subtraction facts 0-10 with 95% correct for a trimester as measured by work samples & observation record. |

Emma

Emma was a very vibrant third grader. She was very fashionable and was always on top of the latest trends, loved to sing and had a Saint Bernard that she liked to talk about. She rushed through schoolwork and therefore had limited comprehension of the material. Emma was very concerned with boys, was popular and attention seeking. She also worked best in small groups and had difficulties with self-control in regards to talking. She had been diagnosed with a Specific Learning Disability (SLD) and spends 150 minutes a week in Resource receiving help on Reading and Writing.

Table 2

Emma's IEP Goals for 2012-2013

| IEP Goals |
|--|
| <u>Writing Goal:</u> Given grade level text, Emma will use knowledge of basic punctuation and capitalization when writing independently in each sentence as measured by work samples. |
| <u>Reading Goal:</u> Given a written/ verbal prompt, Emma will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 120 correct words per minute on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples. |

Lily

Lily was new to MATES and was in third grade. She loved animals, was considerate with her classmates and had strong reading skills. Lily was also very quiet, had difficulties advocating for herself and making decisions. She often required encouragement in order for her to speak or answer questions. She had been diagnosed with a Specific Learning Disability (SLD) and spends 750 minutes a week in the Resource Room receiving help with Reading, Writing, and Mathematics. She also received 30 minutes a month for Speech and Language services.

Table 3

Lily's IEP Goals for 2012-2013

| IEP Goals |
|---|
| <u>Communication Goal:</u> In the classroom, Lily will use appropriate loudness level for various situations in 4 of 5 opportunities for 2 consecutive trials as measured by observation record. |
| <u>Writing Goal:</u> Given a written assignment, Lily will create a multi-paragraph essay that develops a topic sentence and includes simple supporting facts and details as measured by work samples & observation record. |
| <u>Reading Goal:</u> When reading a selection aloud, Lily will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 135 correct words per minute on a 3 rd grade reading passage with 90% correct for 6 consecutive trials as measured by work samples. |
| <u>Math Goal:</u> Given word problems, Lily will determine when to break a problem into smaller parts in 4 of 5 opportunities as measured by work samples & observation record. |

Alex

Alex was a third grader and this was his first year in Resource. He enjoyed building things, could be very creative and had a good sense of humor. Alex had difficulties staying focused; experienced anxiety when he was exposed to new subjects or there was a change in the classroom environment; had difficulties interpreting social cues and therefore had problems making friends. He qualified under Other Health Impairment (OHI) and had a secondary disability of Speech and Language Impairment. He received additional help in both Writing and Reading for 525 minutes a week, and Speech and Language Services for 240 minutes a month.

Table 4

Alex's IEP Goals for 2012-2013

| IEP Goals |
|--|
| <u>Communication Goal:</u> In the classroom and speech room, Alex will formulate grammatically correct sentences overall when speaking and writing with 80% correct without prompts for 4 out of 5 opportunities as measured by observation record. |
| <u>Communication Goal:</u> In the speech room and in the classroom, Alex will take turns and pay attention to nonverbal cues given by the listener in a speaking situation with 80% correct for 4 out of 5 opportunities without prompts as measured by observation record. |
| <u>Communication Goal:</u> In the speech room and classroom, Alex will tell a story including 3 simple details with grammatically correct sentences with 80% correct for 4 out of 5 without prompts as measured by observation record. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Alex will create a single paragraph that develops a topic sentence and includes simple supporting facts and details independently for a trimester as measured by work samples and observation record. |
| <u>Reading Goal:</u> When reading a selection aloud, Alex will distinguish the main idea and some supporting details in the passage with 85% correct for a trimester as measured by work samples & observation record. |

Violet

Violet was in fourth grade and loved theater. She was a performer, dreamed about being an actress when she grows up and was very considerate of her classmates. Violet was an English Language (EL) Learner, had difficulties focusing on schoolwork and was primarily interested in socializing. She qualified for Resource services under a Specific Learning Disability (SLD) and Speech and Language Impairment. She came to the Resource room 450 minutes per week and received help with Writing and Reading. Additionally, the speech therapist pushed into the Resource room, and provided Violet with 200 minutes a month of therapy.

Table 5
Violet's IEP Goals for 2012-2013

| IEP Goals |
|---|
| <u>Communication Goal:</u> In the speech room, resource room and classroom, Violet will identify and use regular and irregular verbs, adverbs, prepositions, and coordinating conjunctions in writing and speaking in 4 of 5 opportunities given no more than 1 prompt each opportunity with 80% accuracy as measured by observation record. |
| <u>Communication Goal:</u> In the speech room, resource room, and classroom, Violet will ask questions and support answers by connecting prior knowledge with literal and inferential information found in text in 4 of 5 opportunities given no more than 1 prompt with 80% accuracy each opportunity as measured by observation record. |
| <u>Writing Goal:</u> Given a graphic organizer, Violet will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points independently in 5 paragraphs as measured by work samples and observation records. |
| <u>Reading Goal:</u> When reading a selection aloud, Violet will use previous knowledge and ideas from illustrations, titles, topic sentences, clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record. |

Nick

Nick was in fourth grade and loved football. He was active and enjoyed playing all sports; can be creative; and wanted to be involved in the classroom activities. Nick was a kinesthetic learner; had difficulties with focus and attention; and was hyperactive. He qualified under Other Health Impairment (OHI) and received 300 minutes a week for Reading and Writing, as well as, 120 minutes per month for Speech and Language Services.

Table 6
Nick's IEP Goals for 2012-2013

| IEP Goal |
|---|
| <u>Communication Goal:</u> In the speech room, resource room, or classroom, given one verbal/ visual prompt Nick will use conjunctions to form grammatically correct complex sentences in speaking and writing in 4 of 5 opportunities for 3 trials as measured by observation record. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Nick will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with fewer than 4 prompts in 2 paragraphs as measured by work samples and observation record. |
| <u>Reading Goal:</u> When reading a selection aloud, Nick will use previous knowledge and ideas from illustrations, titles, topic sentences clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record. |

Jackson

Jackson was in fourth grade. He wanted to be a professional skateboarder, enjoyed learning, liked to participate in classroom activities and was considerate of his classmates. Jackson had difficulties with impulsivity, had hyperactivity problems and exhibited negative attention-seeking behavior. He qualified for Resource Services with a Specific Learning Disability (SLD) . He received help in the Resource room for 750 minutes per week for Writing, Reading, and Mathematics.

Table 7
Jackson's IEP Goals for 2012-2013

| IEP Goal |
|---|
| <u>Writing Goal:</u> Given a written assignment, Jackson will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with 80% correct for a trimester as measured by work samples and observation record. |
| <u>Reading Goal:</u> When reading a selection aloud, Jackson will read narrative and expository text aloud with fluency and accuracy with appropriate pacing, intonation, and expression with 90% correct for a trimester as measured by work samples and observation record. |
| <u>Mathematics Goal:</u> Given a calculator, Jackson will determine when and how to break a problem into simpler parts when presented with single and multi-step problems solving with 75% correct for a trimester as measured by work samples and observation record. |
| <u>Social/ Emotional Goal:</u> With direct verbal prompts, Jackson will stay on-task when completing an assignment with fewer than 3 prompts for a trimester as measured by observation record. |

Claire

Claire was in fifth grade and was a very talented artist and singer. She stayed on task, liked to complete projects and was a good student. Claire had difficulties with social situations, had very few friends, and experienced anxiety during unstructured time such as recess. She qualifies under a Specific Learning Disability, Autism and a Speech and Language Impairment. Megan received 300 minutes a week in Reading, Writing, and Mathematics and 240 minutes of Speech and Language Services per month.

Table 8

Claire's IEP Goals for 2012-2013

| IEP Goal |
|--|
| <u>Communication Goal:</u> In the speech room, resource room and classroom, Claire will tell and/ or write a story including a main idea, five relevant details, and a closing sentence in 4 of 5 opportunities for 5 consecutive trials given 3 verbal/ visual prompts as measured by observation record. |
| <u>Communication Goal:</u> In the speech room, resource and classroom, Claire will use sentence, word context clues, and knowledge of synonyms, antonyms, root words, prefixes, etc to explain meanings of unknown words with 80% correct for 4 out of 5 trials as measured by observation record. |
| <u>Writing Goal:</u> Given a written assignment, Claire will create a multi-paragraph expository composition that establishes a topic, key ideas, or events in sequence, provides details and transitional expressions with link paragraphs, and offers a concluding paragraph that summarizes the key ideas with 80% correct for a trimester as measured by work samples and observation record. |
| <u>Reading Goal:</u> Given a graphic organizer, Claire will identify the main idea of the text and identify statements within that text, which support the main idea with 85% correct for a trimester as measured by work samples and observation record. |
| <u>Mathematics Goal:</u> Given a chart or graph, Claire will use information from a graph or equation to answer questions about a problem situation with 85% correct for a trimester as measured by work samples and observation record. |
| <u>Social/ Emotional Goal:</u> With modeled prompts, Claire will use the agreed-upon problem solving model independently to find appropriate solutions to a problem which she is personally involved in independently each opportunity as measured by observation record. |

Nature Trip Sites

MATES Charter provided the primary setting of the EBEC; however, going out into the community and interacting with the world embraced the experiential learning style. Sample lesson plans for each destination below can be found in Appendix I. The following are descriptions of the places students visited on their Nature Trips:

- 1. Conejo Creek North Park:** Located in Thousand Oaks, CA near MATES Charter. It is a 44-acre natural creek side site with two ponds connected by a recirculating meandering stream.

<http://www.crpd.org/parkfac/parks/conejocreeknorth.asp>
- 2. Moorpark Zoo:** Located in Moorpark, CA and is a five-acre zoo on the Moorpark College campus. It is called “America’s Teaching Zoo” because students who are in the Exotic Animal Training Management (EATM) Program run the zoo. Animals there are acquired through donations and breeding loans from major zoos and research centers.

http://www.moorparkcollege.edu/current_students/teaching_zoo/
- 3. TreePeople:** TreePeople is an environmental nonprofit that unites the power of trees, people, and nature-based solutions to grow a sustainable future for Los Angeles. At a series of “eco-stations,” its Eco-tour educators help the students see, hear, feel and understand the natural cycles of the forest—how those cycles

have been disrupted in the city and what they can do to help.

<http://www.treepeople.org>

- 4. Anacapa Island:** Part of the Channel Islands off the coast of California. It was home to many of the Chumash Native Americans. Anacapa Island has plants and animals that are found nowhere else on Earth. Efforts have been put forth to help restore the Island and its natural habitat.

<http://www.channelislandsrestoration.com/islands.htm>

- 5. Wildwood Park:** Located in Thousand Oaks, CA and was home to the Chumash Indians for nearly 8,000 years until the Spanish colonized California. One of the most popular hikes is to Paradise Falls where there is a year-round waterfall.

<http://www.conejovalleyguide.com/dosomethingblog/wildwood-park-in-thousand-oaks.html>

- 6. Ramirez Mountain Outreach Program:** This unique and important program gives children and young adults with disabilities a high-quality, interactive educational nature experience in a fun, safe environment in the heart of the Santa Monica Mountains. Participants learn about the ecology of Ramirez Canyon Park and the Santa Monica Mountains and enjoy easy access hiking trails and picnic areas in a peaceful setting. <http://www.lamountains.com/programs.asp>

7. **William O. Douglas Outdoor Classroom:** At Franklin Canyon Park, students are immersed in the perfect outdoor experience with a 2-hour docent led nature discovery hike focusing on urban wildlife, Native American Tongva culture, and watersheds of the Santa Monica Mountains. Its education program incorporates curriculum tied to California State Science Standards and the Education and the Environment Initiative (EEI) with hands-on and experiential-based learning to build upon classroom lessons.

http://www.lamountains.com/programs_natureCenters.html

8. **Limoneira:** A local citrus orchard whose main crop is lemons. Students for Eco-Education and Agriculture is a program established in 2008 to help children make the connection between the acres of farmland around them to the food on their table. Located in Santa Paula, CA students learn why they need to care for plants and agriculture. <http://www.vcagriculturaleducation.com>

9. **Arroyo Verde Park:** Located in Ventura, CA and consists of 132 acres of land that has several hiking trails and open grassland. The local community is highly involved in its preservation. <http://www.cityofventura.net/pw/parks>

10. **RedBrick Pizza Cafe:** A Ventura Certified Green Business that uses a plethora of eco-friendly products. From biodegradable and bio-compostable materials made from sugar cane, to low VOC non-polluting paints and recycled paper and

reclaimed wood, “RedBrick Pizza strives to create a casual dining experience that balances innovation and sustainability.” <http://www.redbrickpizza.com/index.htm>

Measurement Instruments

Data was collected several ways throughout the study in order to measure total student growth. Although focus was on academics, behavior, and self-esteem, the totality of which students were evaluated came from different sources. Parents and teachers were given questionnaires; students collected his/ her own data in his/ her Nature Journals and participated in a Nature Project; progress toward Individual Education Plan (IEP) goals were evaluated; California State Testing Scores were recorded; and the researcher documented observations. All participants gave crucial perspectives of the Environment-Based-Education Curriculum.

Questionnaires

Preceding the approval of the EBEC, parents were given a formal presentation regarding the project and what the program would entail. During this time parents had the opportunity to ask questions, as well as, sign an “Interest Slip” to find out if there was value in moving forward with this study.

Following the approval, parents and teachers were given the choice to participate; therefore, subjects were not deceived, misled, and information about the project was not withheld. Parents and teachers signed a voluntary participation form. Communication with students’ parents occurred on a weekly basis, due to the fact that the Nature Trips transpired so frequently and required parent drivers and permission.

Current teachers and parents also received questionnaires that guided the Nature Trips and assignments. Questionnaires were administered at the beginning of the program, in the middle, and at the end in order to document the different perspectives and development of each student. Documenting prior and post exposure to nature helped determine if student engagement in the outdoors increased due to the interest presented in school. Additionally, recording changes in behavior, self-esteem and academics was an important observation that required multiple points of view to gauge changes.

The Parent Informed Consent Form for Minors, Video and Photo Release Form, Parent Questionnaires and a copy of the Final Parent Survey can be found in Appendix L.

The Teacher Consent Form and Teacher Questionnaire can be found in Appendix M.

Student Nature Journals

Students recorded all of their EBEC in their Nature Journals. This living document of their experiences helped transition their education from awareness to knowledge to action; thus, improving their critical thinking, problem solving, and negotiating skills. To prepare for their Nature Trips, students were asked to write their predictions and questions in their Nature Journals. During the trip, students documented their observations, answered their questions, and illustrated things they found interesting. Observing was particularly important to the Nature Journals and the program because it helped students analyze topics we had previously discussed, make personal connections

and formulate questions. This information was then brought back to the classroom and students were asked to reflect and evaluate their experience.

Additionally, the EBEC worked with the MATES mission to infuse the arts and technology into the curriculum. Thus, in keeping with the MATES theme, students often sketched in their journals and took pictures with their iPods on their Nature Trips. This was another way they were able to document their experiences and capture their view of the natural world.

Culminating Nature Fair Project

To demonstrate students' acquired nature wisdom, they were asked to participate in a Nature Project, instead of repeating or summarizing their skills in a paper or test. Their task was to put together a project board to demonstrate their mastery of one of their Nature Trips and present it to the school. This authentic culminating project assessed the students' ability to use their data, analyze it, discuss how it related to sustainability, and present it to others who did not go on the Nature Trip. This assignment was project-based, provided many opportunities for development and additional research, and allowed them to work with a tangible experience that was motivating and showcased their understanding. Along with the students' presentations, a montage video of their iPod pictures was put together and shown to the school and parents.

The information required for their project and speech are outlined in Appendix J.

Researcher Observations

During the Nature Trips and regular class time, the researcher documented comments and actions that were made by students, parents, and teachers that related to the nature curriculum. Notes of general observations were made regarding student behavior, academics, and self-esteem.

Data Analysis

A mixed methods approach was used to analyze the data collected. Quantitative data was used to document academic growth by looking at past and present California Standardized Testing and Reporting (STAR) Program scores. Additionally, progress toward meeting IEP goals was also noted, since the program incorporated opportunities for practice. Questionnaires had both rating scales and open-ended questions to record changes within the course of the year. The questionnaires asked about self-esteem and routine. Results were organized into categories and can be found in Section 4. Behavior was evaluated quantitatively by looking at past documentation and current files, and qualitatively by observation records.

Chapter 3

The Program Extras

Volunteers

Volunteers were a necessity for this project. Parents complied with state and school regulations and were fingerprinted. They were asked to drive and chaperone during each Nature Trip because MATES does not have school buses. For each trip a minimum of three drivers were needed. This was a good way for the teacher to interact with the parents and for the parents them to share experiences with their child.

Lunches, Clothing, and Equipment

The group established a policy of a Trash Free Lunch when attending at Nature Trip. Students were asked to pack their snacks and lunch items in reusable containers, use reusable water bottles, and bring cloth napkins to eliminate waste. Many students and parents continued with this activity throughout the year.

MATES is a uniform school. Students were required to wear their MATES T-Shirt, but could opt for jeans or shorts during the trips. Closed toed shoes, such as tennis shoes were mandatory due to the long hikes that were part of the project.

Students carried their backpacks that held their lunch, nature journal, and their school iPods. Their school iPods were utilized during appropriate times to take pictures for their culminating nature project.

Permission Slips and Communication

Permission slips and parent notes were sent home approximately every week since Nature Trips were so frequent. It was important to keep in constant communication with the parents to explain where we were going, if they were able to chaperone, and provide them with specifics about the upcoming Trip. Emails and a class website were also used, but less frequently for the Nature Trips.

Cost

The program cost was minimal. The parents volunteered to provide donations if trips required a fee. The chart below describes each Trip and the Total Cost. The Total Cost was divided among how many total people were attending (8 Children), including chaperones (3 or more), and that was the amount each person donated. The cost was approximately \$23 per student. Table 9 on the next page shows the total cost of each trip.

Table 9
Each Nature Trip's Total Cost

| Nature Trip | Total Cost |
|--|---|
| Nature Trip 1: MATES/ Conejo Creek North Park | Free |
| Nature Trip 2: Moorpark Zoo | \$65 |
| Nature Trip 3: Lorax & Gardening | Free |
| Nature Trip 4: TreePeople | \$75 |
| Nature Trip 5: Anacapa Island | Free for Students (Each Chaperone \$43) |
| Nature Trip 6: MATES/ Recycling Presentation and Activities | Free |
| Nature Trip 7: Wildwood | \$100 |
| Nature Trip 8: Ramirez Mountain Outreach Program | Free |
| Nature Trip 9: MATES—Paper Making | Free |
| Nature Trip 10: William O. Douglas Outdoor Classroom | Free |
| Nature Trip 11: MATES—plan presentation boards | Free |
| Nature Trip 12: MATES (45 minute presentation from Limoneira) | Free |
| Nature Trip 13: Limoneira | Free |
| Nature Trip 14: MATES—Presentation boards & speech writing | Free |
| Nature Trip 15: Arroyo Verde Park/ Red Brick Pizza | Free/ Donated pizza |
| Nature Trip 16: MATES—Mock presentations | Free |

Nature Trips

As mentioned earlier, that intermittently “freeing” children with learning disabilities from the classroom setting would enhance their learning journey by exposing them to local natural settings. The Environment-Based-Education Curriculum was specifically designed to do just that. It was comprised of sixteen Nature Trips around the local community. Nature Trips were like field trips, however, the child’s sense of wonder and curiosity about the natural world were the forefront of these expeditions. Students were responsible for their own learning based on previous guidance provided and had to document observations, ask questions, and draw pictures in their Nature Journals. This way of experiencing a Nature Trip allowed students to engage in their local environment, make personal connections to the material, and helped clarify their environmental values.

Nature Trips occurred roughly every other week between September and April, lasting 4-hours. The Nature Trips ranged from exploratory nature walks to taking a boat ride to the Channel Islands in order to plant native plants. During my planning and execution, I strived to adhere to the Teaching Green Principles because it provided a research-based framework that was well suited for elementary students. Table 10 lists each Nature Trip destination and the objective(s) for the trip.

Table 10
Nature Trip Destinations and Objective(s)

| Nature Trip Destinations and Objectives | | | |
|--|--------------------|---|---|
| | Date | Destination | Objective(s) |
| Nature Trip 1 | September 11, 2012 | MATES & Conejo Creek North Park | <i>MATES:</i> Introduction to nature and sustainability. <i>Conejo Park:</i> Nature scavenger hunt, use of senses |
| Nature Trip 2 | September 25, 2012 | Moorpark Zoo | Learned about animal defenses and how zoos help animals and aid in sustainability. |
| Nature Trip 3 | October 9, 2012 | MATES: Gardening & <i>The Lorax</i> | <i>Gardening:</i> Learned about planting seasonal vegetables and planted seeds. <i>The Lorax:</i> Created before and after the Once-ler 3-D models |
| Nature Trip 4 | October 30, 2012 | TreePeople | Learned about air, water, soil, seeds, and resources at different stations |
| Nature Trip 5 | November 13, 2012 | Anacapa Island | Planted native plants and helped restore the island, also about the Chumash Indians. |
| Nature Trip 6 | November 27, 2012 | MATES: Recycling Presenter and Activities | <i>Presenter:</i> Guest spoke about waste and recycling. <i>Activities:</i> New vocabulary, recycling posters, and practice |
| Nature Trip 7 | December 11, 2012 | Wildwood Park | Hiked and learned about the Conejo Valley |
| Nature Trip 8 | January 8, 2013 | Ramirez Mountain Outreach Program | Learned about the Chumash Indians |

| | | | |
|----------------------------|-------------------|--------------------------------------|--|
| Nature Trip 9 | January 22, 2013 | MATES: Recycled paper making | Made paper out of recycled paper that would be used as invitations to the Nature Fair |
| Nature Trip 10 | February 7, 2013 | William O. Douglas Outdoor Classroom | Hiked and learned about the indigenous plants and animals |
| Nature Trip 11 | February 19, 2013 | MATES: Plan presentation board | Put together invitations and worked on Nature Project |
| Nature Trip 12 | February 26, 2013 | MATES: Limoneira Speaker | Limoneira Speaker about what to expect at Limoneira and about fruits and vegetables |
| Nature Trip 13 | March 6, 2013 | Limoneira | Traced a lemon from a seed to the table |
| Nature Trip 14 | March 19, 2013 | MATES: Nature Project | Assembled Nature Project Presentation Board for the Nature Fair |
| Nature Trip 15 | April 9, 2013 | Arroyo Verde Park/ RedBrick Pizza | <i>Arroyo Verde Park:</i> Hiking Scavenger Hunt <i>RedBrick Pizza:</i> Introduction to a sustainable business |
| Nature Trip 16 | April 23, 2013 | MATES: Mock Nature Fair | Practice for the Nature Fair |
| Culminating Project | April 26, 2013 | MATES: Multipurpose Room | Nature Fair |

Chapter 4

Results

As with any discipline, the purpose of assessment and evaluation is to measure success in learning and to further plan instruction. (Murphy, 2011) Teachers often use the easiest way to evaluate a student's "learning" by giving them a test. Paper and pencil tasks are widely used because they are quantifiable and structured. However, these tests do not actually measure what the student learned, but reflect what they remembered during the test on a specific date. Evaluating the effectiveness of the Environment-Based-Education Curriculum via a paper and pencil test was not an appropriate assessment of its' effectiveness with students with learning disabilities because they often have difficulty with reading and writing. Instead, by examining their acquiring or changing attitudes toward environmental issues, although a difficult task, proved to be a more appropriate form of assessment. Students often verbalize thoughts and ideas that conflicts with their personal beliefs. Beliefs are influenced by many factors other than teaching, including culture, family, values, economics, religion, media, and peer pressure, proved to be a more appropriate form of assessment. (Murphy, 2011) The researcher's observations, in this case, are one of the best ways to determine if changes had occurred. Additionally, the EBEC considered many aspects of the program to understand its effectiveness.

The components that were examined are as follows:

1. Teaching Green Principles
2. Three Essential Questions

3. Research Question
 - a. Self-Esteem
 - b. Behavior
 - c. Academics
4. Researcher's Observations

Teaching Green Principles

The fundamental core of the program was the Ten Teaching Green Principles. They framed the lessons, interactions, and provided the theme, “Your environment matters.” By embracing each principle, it was apparent that the students were learning because their behavior and attitude toward nature had changed. Since the fascination factor was high, the students were engaged in the lessons. They actively participated and demonstrated their acquired knowledge through discussions, actions, and their transference to their friends and family. These principles helped shape and transform student’s personal environmental values and taught them how to make decisions by thinking about the impact they would make. By observation each concept has been documented through examples.

- 1. Students should have the opportunity to develop a personal connection with nature.** The sixteen Nature Trips encouraged students to explore and develop a personal connection with nature. Repeated exposure to the outdoors increased the attitude of comfort with the outdoors and with the program approach; and with each Trip, the students gained more skills and felt more confident. In time, students lost their fear of asking questions, understood the need for appropriate footwear when hiking, and were able to evaluate situations based upon the knowledge they had acquired from previous trips. Additionally, the more the students became familiar with the outdoors, an increased personal connection was developed and the result was that they expressed increased concern for their environment.

- 2. Education should emphasize our connections with other people and other species, and between human activities and planetary systems.** The essential question, “*How do humans have an impact on their local community?*” presented the opportunity for students to witness the interconnectedness between people and other species. As they explored possible answers to this question by recalling information they learned in their Nature Trips, they were able to understand how humans can affect the planet either in a positive or negative way. The increased understanding helped enhance students’ problem-solving skills and raised the level of respect for our interconnectedness and provided fertile soil for moral growth. For example, students who killed spiders roaming in the classroom, now gently placed them outside. Showing respect for life and compassion for other species was an important life lesson that helped develop empathy.

- 3. Education should help students move from awareness to knowledge to action.** Dr. Seuss’s *The Lorax* introduced the subject of sustainability and nature to the students. A quote from the book says it best, “Unless someone like you cares a whole awful lot, nothing is going to get better. It’s not.” This quote was, and still is the essence of the program. As students learned about their world, that knowledge turned into care, and that care developed into action both at school and at home, reflecting personal growth. The *care* for their natural environment has the potential to engage the student in commitment to sustainable change.

Additionally, the essential question, “*What can we do to make MATES more sustainable and have a lower negative impact on the local community?*” gave students an opportunity to act on an environmental problem. The Resource Class developed a school recycling system, which required them to think through problems; therefore, increasing their problem-solving, negotiating, and critical thinking skills in order for them to solve the complex issue.

- 4. Learning should extend into the community.** Keeping the Nature Trips local gave the program authenticity. Students were able to visit places that they were familiar with, which gave it more significance and an increased enthusiasm. The program rooted itself within the local community and real world environmental problems. Consequently, students began to develop a sense of place and identity while learning the values and skills of being a responsible citizen.

- 5. Learning should be hands-on.** Howard Gardener developed the theory of Multiple Intelligences in 1983. He has stated that all people have a unique combination of nine intelligences (linguistic, logical/ mathematical, musical rhythmic, bodily/ kinesthetic, spatial, naturalist, intrapersonal, interpersonal, and existential). With an Environment-Based-Education Curriculum, students had the opportunity to use their five senses and develop each of their intelligences in a unique fashion. Many students who are in Resource or Special Education do not respond to traditional teaching methods the same way that the average population does. Students with learning disabilities learn differently, and in order for them to

comprehend the material, the approach to their education needs to be different. The EBEC used an age appropriate, multi-sensory method that encouraged active exploration, so students had exposure to an education that emotionally engaged them. Making ideas and items tangible and visible, ensured students were actively learning by being able to physically manipulate objects.

6. Education should integrate subject disciplines. Since the program required students to miss one day of class every other week, the EBEC took on Transdisciplinary Approach. A Transdisciplinary Approach “focuses the content around subject areas such as themes, concepts, life skills, the real-world context, and student questions.” (Sustainable Communities, 2012) The program incorporated the California’s Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects to support the teachers and students, as well as, the environmental lessons being taught in the EBEC were used to expand on general education classroom themes. Student assignments were primarily project-based and at times collaborative.

As students investigated the outdoors and became familiar with environmental issues, the need to be able to read and write proved to be a necessity. Students were given a real-life context in how reading and writing could be used. The students’ curiosity about the world took over, and this was a pivotal point in their learning. No longer were assignments “busy work”, instead they turned them into opportunities to gain knowledge and that transformed their

learning process. Students were not being told to learn, they were learning because they wanted to. Motivation and context are extremely important for students with learning disabilities.

7. Education should be future oriented. Currently you cannot walk into a store without seeing the word “green” or “organic” or “natural”. This is the world these children live in; however, do they really know what it means to be green, organic, and natural? To prepare them for the future, the EBEC helped them envision the kind of world they wanted to live in, as well as how their choices impacted that vision. Talking and defining sustainability was a key learning point. It made students question their actions and think about how they could make things “last longer”. Dr. Seuss’s *The Lorax* demonstrated this idea of sustainability and how humans can have an affect on their world when they do not think about what they are doing and whom it might affect. Additionally, this topic was very empowering because students could participate right now. They didn’t have to wait until they were older, they could personally make small changes that would make a difference.

8. Education should include media literacy. MATES is an arts and technology school and it was vital to incorporate technological devices that students use regularly. iPods were used to take pictures and movies in order to document their Nature Trips. Students embraced being able to use the technology on their trips; however, it was apparent that students also needed to distinguish when iPod use

was appropriate. Technology was a tool to record nature, but their senses were required to appreciate it.

9. Education should include traditional knowledge. In several of the Nature Trips, the Chumash Indians were discussed because they were native to this part of California. The exposure to the traditional way of life aided in understanding the interdependence of all living things.

10. Teachers should be facilitators and co-learners. As their teacher, I did not know all of the answers about nature; however, what I did know was where to get the information. It was so important for me to be a co-learner alongside my students, because that created a strong bond and joy for education. I could model how to be a good, active listener and facilitate an environment for productive learning.

The Three Essential Questions

Establishing the three essential questions provided a direction for the program and clear objectives for the students. Each Nature Trip encompassed the theme of sustainability and as students became more familiar with the vocabulary and the knowledge of the subject matter increased, they were then able to engage in thoughtful discussion. Students began to take ownership and responsibility for their behavior and its' impact in their local community. Knowledge had evolved into action and their behavior demonstrated a new attitude toward their environment. By focusing on these three essential questions the class was able to reflect, identify and connect with these themes.

The students worked collectively on answering these questions each month. As they discussed them with increased knowledge, their definitions changed and the conversations became multi-dimensional and complex thus broadening their definition of the subject matter. They discussed the definition of sustainability, how humans impacted their local community and how they could change their school. Each student brought to the table common experiences but multiple perspectives. It was truly a collaborative and creative group experience.

The three essential questions were:

1. What is sustainability?
2. How do humans have an impact on their local community?
3. What can we do to make MATES more sustainable and have a lower negative impact on the local community?

Tables 11-13 represent the transformation of answers the students gave. It should be noted that November and December contain the same definition because of the holidays and short number of school days.

Table 11.
Essential Question 1: "What is sustainability?" Student Answers

| | September | October | November | December | January | February | March | April |
|-------------------------|-------------------------------|--|--|--|---|---|--|---|
| What is sustainability? | Sustainability means to last. | Sustainability means to last longer and protect the environment. | Sustainability means to take care of the environment by thinking before we act, so it lasts longer in its natural habitat. | Sustainability means to take care of the environment by thinking before we act, so it lasts longer in its natural habitat. | Sustainability means to take care of the environment and be responsible for your actions, by thinking before you act and also thinking about whom it can affect, so the Earth can last longer in its natural state. | Sustainability means to make good decisions so we can take care of the environment by thinking before we act, be responsible for our actions and to make the Earth clean so it can last longer. | Sustainability means to make something last longer naturally and responsibly. Before we act we need to plan and think about whom or what we are affecting. | Sustainability means to make things last longer so we can protect and preserve the environment for people that are living right now and for future generations. |

By the end of April, students had a deeper understanding of sustainability. They recognized that “sustainability” isn’t just about making something in the environment last longer; instead, they became aware that their actions had a direct effect on the environment and would affect others in the future. They had developed a sense of responsibility.

Table 12

Essential Question 2: “How do humans have an impact on their local community? Student Answers

| | September | October | November | December | January | February | March | April |
|--|--|---|---|---|--|--|--|---|
| How do humans have an impact on their local community? | Humans impact their community when they throw trash on the ground, do not recycle materials they should, and they waste electricity when they don't turn off the lights. | Humans impact their community when they litter, waste electricity, water, food, cut down trees, and pollute the air, water, and land. | Humans can have both a good and back impact on their community. The can have a good impact by being a good example, recycling, and by helping the Earth. Humans can have a bad impact on their community by littering, polluting, and not caring about their environment. | Humans can have both a good and back impact on their community. The can have a good impact by being a good example, recycling, and by helping the Earth. Humans can have a bad impact on their community by littering, polluting, and not caring about their environment. | The population of a community can have both a good and bad impact. If there are too many people in a community, it will have a bad impact because the natural resources (trees, water, air, and land) will get used up faster. Humans can have a good impact on their community by living sustainably. | Humans can have both a good and bad impact of their local community. For example, the amount of people can either increase or reduce the land, air, and water quality. | Humans can have an impact on their local community by helping plant plants on the roofs of houses or buildings to help create more oxygen. Also solar panels are a good way to get energy from the sun. By acting responsibly and using nature naturally, humans are acting sustainable. | We can have an impact on our local community by thinking before we act, thinking about others, thinking about how our community affects the Earth, and how we can be sustainable. By working together, we can recycle and reduce the trash that gets buried in the landfill, turn off the lights preserves electricity, and play outside will help people care about the environment. |

Students incorporated information they had learned from their Nature Trips when answering this question. They also recognized that personal decisions could have a positive or negative impact on the environment. Another important element that should be highlighted was that throughout the year they had always began their responses by relating it to “Humans”; however, in April their responses became quite different. The students assumed responsibility for behaviors that they could control and spoke of how *they* could impact their local community by using the word “We”. This was a significant “aha moment” for the students because they suddenly became conscious that they were part of their community and they had the ability to make a difference.

Table 13

Essential Question 3: “What can we do to make MATES more sustainable and have a lower negative impact on the local community?” Student Answers

| | September | October | November | December | January | February | March | April |
|--|--|--|---|---|--|---|---|--|
| <p>What can we do to make MATES more sustainable and have a lower negative impact on the local community?</p> | <p>MATES can have a recycling program where kids can throw their trash where it belongs.</p> | <p>MATES can have a recycling program. Kids will know what to recycle because we will make signs, set a good example, give a presentation, and make posters.</p> | <p>MATES can become more sustainable and have a good impact on its community by reducing, reusing, and recycling. We need to get the whole school involved by first being a good example, next we can go to all the classrooms and give a presentation, lastly, we will put signs and recycling bins around the school.</p> | <p>MATES can become more sustainable and have a good impact on its community by reducing, reusing, and recycling. We need to get the whole school involved by first being a good example, next we can go to all the classrooms and give a presentation, lastly, we will put signs and recycling bins around the school.</p> | <p>MATES can become more sustainable and have a good impact on its community by reducing, reusing, and recycling. We could also walk, ride a bike or a skateboard, or even ride a bus to school. You could get other people in the community involved by advertising, building more sidewalks, and painting more bike lanes.</p> | <p>To make MATES more sustainable we can collect recycling items, think before we act, grow more plants, and remind others about caring and protecting the environment.</p> | <p>To make MATES more sustainable, we can plant plants in the schoolyard and on the roof. We can also install solar panels to create our own energy and we could also get sheep to eat our grass instead of using a lawn mower.</p> | <p>To make MATES more sustainable and have a lower negative impact on its local community, we can have a more natural setting for our playground. By having a more natural setting instead of having concrete, it will create fresh air, a healthy environment, and give kids ideas while they have fun and learn to care about our Earth.</p> |

Initially, students did not clearly understand their role in the community or how they could effect change. However, once they used facts that they learned from their Nature Trips, they were able to discuss what kind of school they wanted to be a part of and what actions were required to fulfill that vision. Students took ownership of their school within the second month of answering this question. I hypothesize that students' attitudes changed due to their earlier exposure to the subject matter. They were familiar with their school setting and understood their role within that context.

One of the actions they engaged in was to establish a recycling program at MATES. They felt that this activity would make their school a more sustainable place and would support a lower impact on the local community. Students collected cans and plastic bottles throughout the school, separated and counted them, analyzed the data, graphed it and reported the results. The cans and plastic bottles were then brought to a local recycling center for reimbursement. The funds accumulated were directed towards paying for Nature Trips and classroom supplies.

One of the students outlined the results derived from this activity in his Culminating Nature Project. Students actively participated in making MATES a more sustainable place by not allowing the cans and plastic bottles to be thrown in a landfill. To help maintain the continuity of the recycling program, the school purchased recycling cans. This simple action helped students feel supported in their activities and reinforced how personal action makes a difference.

Research Question

Children with learning disabilities learn in a variety of ways and the EBEC aimed to teach students about the environment by using a multi-sensory approach to provide them the resources to succeed in the school setting. However, in order to do this, the supports needed to be built differently so students had equal access to the California's Common Core Content Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects while embracing their particular learning style. This program required a focus on the whole student because self-esteem, behavior and academics are intertwined and influence each other.

Questionnaires were given to both the parents and teachers three times during the school year to document self-esteem and behavior, while the California Standardized Testing and Reporting (STAR) Program, Nature Journals, and their Culminating Nature Project were used to evaluate academic growth. An additional Final Parent Survey was also distributed to capture personal observations, experiences, and suggestions.

In this section, the results of my research question will be discussed: *How does using Environment-Based-Education Curriculum and the natural outdoors help elementary students with learning disabilities improve their (1) self-esteem, (2) attitude/behavior, and (3) academics?*

Self-Esteem

Feeling good about oneself is extremely important when developing social awareness. Self-esteem fluctuates with the various experiences that are presented. Both parents and teachers were asked to evaluate the student's self-esteem. They were asked: *From a scale from 1-5, 5 being the strongest, how would you rate your child's/ student's self-esteem?* Table 14 represents the parents' scores.

Table 14
Parent Self-Esteem Rating

| | 1 st Score | 2 nd Score | 3 rd Score | Average Score | Description |
|----------------|-----------------------|-----------------------|-----------------------|---------------|-------------|
| Olivia | 3 | 3 | 3.5 | 3.167 | Increased |
| Emma | 3 | 3 | 3 | 3 | Flat |
| Lily | 3 | 4 | 4 | 3.667 | Increased |
| Alex | 3 | 4 | 4 | 3.667 | Increased |
| Violet | 4 | 2 | 3 | 3 | Increased |
| Nick | 3 | 3.5 | 3 | 3.167 | Decreased |
| Jackson | 4 | 5 | 5 | 4.667 | Increased |
| Claire | 3 | 2 | 4 | 3 | Increased |

The results from the parents indicated that 12.5% (one child) had no change in her self-esteem. One child (12.5%) had a slight decrease in his self-esteem, while 75% (six children) had an increase in their self-esteem.

Table 15
Teacher Self-Esteem Rating

| | 1 st Score | 2 nd Score | 3 rd Score | Average Score | Description |
|----------------|-----------------------|-----------------------|-----------------------|---------------|-------------|
| Olivia | 4 | 4 | 4 | 4 | Flat |
| Emma | 4 | 5 | 4 | 4.333 | Decreased |
| Lily | 2 | 3 | 3 | 2.667 | Increased |
| Alex | 3 | 3 | 3 | 3 | Flat |
| Violet | 3 | 4 | 4 | 3.667 | Increased |
| Nick | 3 | 3 | 3 | 3 | Flat |
| Jackson | 3 | 4 | 4.5 | 3.833 | Increased |
| Claire | 4 | 2.5 | 3.5 | 3.333 | Increased |

The results in Table 15 indicated that 1 child (12.5%) had a decrease in her self-esteem, three children (37.5%) had no effect, and four children (50%) had an increase in their self-esteem.

Table 16 shows a comparison between the average parent score and the average teacher score. The comparison shows that 50% (4 children) had an increase in self-esteem and 50% (4 children) had a decrease in self-esteem. This means half of the students had higher self-esteem at home and half had higher self-esteem at school.

Table 16
Comparison of Parent and Teacher Self-Esteem Ratings

| | Average Parent Score | Average Teacher Score | Difference |
|----------------|----------------------|-----------------------|------------|
| Olivia | 3.167 | 4 | +0.833 |
| Emma | 3 | 4.333 | +1.333 |
| Lily | 3.667 | 2.667 | -1.000 |
| Alex | 3.667 | 3 | -0.677 |
| Violet | 3 | 3.667 | +0.667 |
| Nick | 3.167 | 3 | -0.167 |
| Jackson | 4.667 | 3.833 | -0.834 |
| Claire | 3 | 3.333 | +0.333 |

By examining the parent and teacher quantitative scores, the program does not seem to have a strong effect on student-self-esteem. However, when reading through the

parent comments from the Final Parent Survey in regards to self-esteem, they did not offer the same findings as the quantitative scores. In fact, each response supported that the EBEC had a positive effect on the students because parents had witnessed a noticeable change in behavior; therefore, all students had an increase in their self-esteem. This discrepancy will be further discussed and clarified in Section 5 in the Limitations Section. Table 17 organizes the parent comments from the Final Parent Survey.

Table 17
Parent Commons of Self-Esteem

| Student | Parent Comment |
|---------------|---|
| Olivia | I feel Sophie's self-esteem has improved this year. I know that it has improved within her nature group. She seems to participate more and even be able to contribute when questions are asked. I feel that she would prefer if we quietly refer to her extra Resource room help; however, throughout the year, she has shifted more towards being proud of her involvement. I think she is excited about her end of the year presentation! Which is amazing growth. I hope it continues. |
| Emma | Ella's self-esteem has improved tremendously because of how much she learned and gave her confidence to be more of a leader. |
| Lily | Tessa has always been afraid of going downhill when hiking. Having several opportunities to do this, although she was still anxious, definitely helped her self-esteem in working through her fear. I think the program made her comfortable enough to relax and be herself around the other kids in the group. |
| Alex | I feel Jack's confidence and overall ability to "handle" things that may be challenging or difficult has grown a ton. Last year every day was negative, a challenge, and an upset cry fest. This year, maybe a handful. He feels confident in many more ways and capable of completing assignments that he would have crumbled before. 2 nd grade pushed him and 3 rd grade is far more difficult and he is handling it so much more than we thought he could. He will definitely buck when things get tough or he has to spend more time on something, but far less than last year and moves past it much more quickly. Jack loves resource and the acceptance he feels there and the safety to be himself. . . he doesn't look around and feel less than, in resource he feels like an equal and "ok" when things are hard to understand. So much of all the outdoor experience has helped with this because all the kids connect, look out for each other and help each other on these nature trips. This has also totally given him confidence, better self-esteem, and attitude! His grades this year were all A's and B's-Amazing Year! |

| | |
|----------------|---|
| Violet | The environment-based education really helped my child with her self-esteem. The day of the presentation she was very nervous of what her friends would think. When all of the kids told her how great and lucky she was, she was so proud to have done this unit. She is now more aware of how to help the environment. She would bring home ideas on how to recycle, how to eliminate trash, how to make lunch without making any waste. She also educated with our family and it has been life changing in our home. |
| Nick | His self-esteem has been a lot brighter. He has not had a bad attitude about how he is not as smart as other kids in reading and spelling. When he leaves the car in the morning he has an excitement about the day at school. His mental attitude has taken a 100% turn around. Before the program started, he would always fake illnesses. He would come home and be so frustrated and hit the dog. He had so much anger inside because he could not keep up with the other kids. Everyday as we would try to do homework, my heart would break, because he was so upset he could not keep up with the other kids. Now, he tries in the other subjects and does not give up! Thank you! |
| Jackson | Skyler loves being outdoors and it is something he feels very comfortable with. Having this program has made his interest in school so much better. It also makes him feel proud and special. |
| Claire | Being a 5 th grader and the oldest is a huge factor, but she has become more self-confident with the kids in resource and with some of her peers in class. Megan has always been a good student and hard working. Coming to school has been less difficult. |

Attitude/ Behavior

Paying attention is the crucial first step for learning. There are several factors that influence attention; they are motion, size, intensity, novelty, incongruity, emotion, personal significance, and social cues (Ormrod, 2008). Objects in motion are much more attractive than stationary ones. The larger something is, the more attention it attracts. Bright colors and loud noises create more intensity than dull colors and low sounds. Something that is unique and unfamiliar is much more novel and tends to draw people's attention. Objects that don't make sense within their context capture focus. Stimuli with strong emotional associations are attractive. The meaning and relevance people find in an object or event can capture and maintain attention. People are more likely to pay attention to things they see *others* looking at and reacting to. These are all reasons why the environment and being outside is a good setting for learning to take place.

The classroom doesn't always offer the variety of attracting stimuli needed to learn and commit something to memory. Due to this factor, students are constantly evaluating information and making choices on which things to focus on and which to ignore; thus they are controlling what they are learning, not the teacher. Therefore, teachers can never assume that students are learning anything unless they actually observe students' behaviors changing as a result of instruction (Ormrod, 2008).

Both parents and teachers were asked a question about focus and student's on-task behavior. Parents were asked to observe their child during homework time. Their question asked, "*When doing homework, from a scale from 1-5, 5 being completely*

focused 100% of the time, what would you rate your child's on-task behavior?" The results from the parents are shown in Table 18.

Table 18
On-Task Behavior Parent Ratings

| | 1 st Score | 2 nd Score | 3 rd Score | Average Score | Description |
|----------------|-----------------------|-----------------------|-----------------------|---------------|-------------|
| Olivia | 1 | 3 | 4 | 2.667 | Increased |
| Emma | 2 | 2 | 4 | 2.667 | Increased |
| Lily | 5 | 4 | 3 | 4 | Decreased |
| Alex | 1 | 2 | 4 | 2.333 | Increased |
| Violet | 3 | 3 | 3 | 3 | Flat |
| Nick | 2 | 3 | 3 | 2.667 | Increased |
| Jackson | 2 | 4 | 3 | 3 | Decreased |
| Claire | 4 | 4.5 | 5 | 4.5 | Increased |

Table 18 shows that 62.5% (five students) had experienced and increased focus ability during homework time. Two student, or 25% were not as focused and decreased their on-task behavior, and only one student (12.5%) had no change throughout the year.

Teachers were asked a similar question about the student's attention during classroom time. They were asked, *"From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on task behavior?"* Table 19 represents the scores from the teachers.

Table 19
On-Task Behavior Teacher Ratings

| | 1 st Score | 2 nd Score | 3 rd Score | Average Score | Description |
|----------------|-----------------------|-----------------------|-----------------------|---------------|-------------|
| Olivia | 4 | 4 | 4.5 | 4.167 | Increased |
| Emma | 4 | 2 | 3 | 3 | Increased |
| Lily | 3 | 5 | 3 | 3.667 | Decreased |
| Alex | 3 | 3 | 2 | 2.667 | Decreased |
| Violet | 3 | 4 | 4 | 3.667 | Increased |
| Nick | 4 | 3 | 3 | 3.333 | Decreased |
| Jackson | 2 | 4 | 3 | 3 | Decreased |
| Claire | 4 | 4 | 5 | 4.333 | Increased |

Based upon the survey, teachers found the students split, 50% (four students) had increased on task behavior and the other half had experienced a decrease in on task behavior.

When examining the average parent score to the average teacher score for each student, it was determined that 62.5% (five students) show more on-task behavior at school compared to 40% (2 students), which had a higher on-task behavior at home. Only one student, or 12.5%, had an identical experience with on task behavior at home and at school. Table 20 shows this comparison.

Table 20

Comparison of Parent and Teacher On-Task Behavior Ratings

| | Average Parent Score | Average Teacher Score | Difference |
|----------------|-----------------------------|------------------------------|-------------------|
| Olivia | 2.667 | 4.167 | +1.5 |
| Emma | 2.667 | 3 | +0.333 |
| Lily | 4 | 3.667 | -0.333 |
| Alex | 2.333 | 2.667 | +0.334 |
| Violet | 3 | 3.667 | +0.667 |
| Nick | 2.667 | 3.333 | +0.666 |
| Jackson | 3 | 3 | 0 |
| Claire | 4.5 | 4.333 | -0.167 |

Academics

Academics were evaluated through the use of the STAR Program, Nature Journal entries, the thoroughness of the Culminating Nature Project, and progress toward IEP goals.

Standardized Testing and Reporting (STAR) Program

Since grading can be subjective from teacher to teacher, a more objective way to examine academic growth was through the Standardized Testing and Reporting (STAR) Program. In California, students take either the California Standards Test (CST) or the California Modified Assessment (CMA) based upon which test is the most appropriate for the individual. A student can only take the CMA if he/ she has an individualized education program (IEP) and meets Title 34 of the Code of Federal Regulations, Part 200-Title I—Improving the Academic Achievement of the Disadvantaged (CA Department of Education, 2013). The CST/ CMA is taken yearly in the subjects of English-Language Arts (ELA), mathematics, science, and history-social science. They begin in second grade and continue through eleventh. The test scores provided information about the student's academic strengths and weaknesses. A scaled score of proficient for all students is the target goal for the state. In addition, students in grades four and seven complete a writing assessment. The writing assessment is graded on a 4-point rubric. Scores are combined with the overall score in the English-Language Arts section of the CST/CMA.

Table 21
STAR Performance Levels and Scaled Scores

| Performance Level | Scaled Score |
|--------------------------|---------------------|
| Advanced | 407-600 |
| Proficient | 350-406 |
| Basic | 300-349 |
| Below Basic | 241-299 |
| Far Below Basic | 150-240 |

In Tables 21-29 located below, each child’s scores are provided from the previous year and the current year. In addition, it also indicates which test (CST or CMA) they took. The majority of students reflected an increase in their scores. One anomaly was recorded and may have been related to the anxiety related to test taking in the student and other psychosocial issues related to her disability.

Table 21
Olivia’s CST Scores 2012 vs 2013

| | 05/2012: 1st Grade | | 05/2013: CST | |
|------------------------------|--------------------------------------|-----|---------------------|------------|
| English-Language Arts | N/A | N/A | 358 | Proficient |
| Mathematics | N/A | N/A | 334 | Basic |

Table 22
Emma’s CST Scores 2012 vs 2013

| | 05/2012: CST | | 05/2013: CST | |
|------------------------------|---------------------|-------------|---------------------|-------------|
| English-Language Arts | 276 | Below Basic | 281 | Below Basic |
| Mathematics | 309 | Basic | 360 | Proficient |

Table 23
Lily’s CST Scores 2012 vs 2013

| | 05/2012: CST | | 05/2013: CST | |
|------------------------------|---------------------|-------------|---------------------|-------------|
| English-Language Arts | 300 | Basic | 340 | Basic |
| Mathematics | 273 | Below Basic | 275 | Below Basic |

Table 25
Alex's CST Scores 2012 vs 2013

| | 05/2012: CST | | 05/2013: CST | |
|------------------------------|--------------|-----------------|--------------|-------------|
| English-Language Arts | 249 | Far Below Basic | 281 | Below Basic |
| Mathematics | 304 | Basic | 312 | Basic |

Table 26
Violet's CST Scores 2012 vs CMA Scores 2013

| | 05/2012: CST | | 05/2013: CMA | |
|------------------------------|--------------|-----------------|--------------|------------|
| English-Language Arts | 223 | Far Below Basic | 415 | Advanced |
| Mathematics | 248 | Below Basic | 395 | Proficient |
| Writing Response | N/A | N/A | 3 | N/A |

Table 27
Nick's CST Scores 2012 vs CMA Scores 2013

| | 05/2012: CST | | 05/2013: CMA | |
|------------------------------|--------------|-------------|--------------|------------|
| English-Language Arts | 281 | Below Basic | 365 | Proficient |
| Mathematics | 315 | Basic | 420 | Proficient |
| Writing Response | N/A | N/A | 3 | N/A |

Table 28
Jackson's CST Scores 2012 vs CMA Scores 2013

| | 05/2012: CST | | 05/2013: CMA | |
|------------------------------|--------------|-----------------|--------------|------------|
| English-Language Arts | 218 | Far Below Basic | 394 | Proficient |
| Mathematics | 253 | Below Basic | 320 | Basic |
| Writing Response | N/A | N/A | 3 | N/A |

Table 29
Claire's CST Scores 2012 vs 2013

| | 05/2012: CST | | 05/2013: CST | |
|------------------------------|--------------|------------|--------------|-------------|
| English-Language Arts | 312 | Basic | 295 | Below Basic |
| Mathematics | 392 | Proficient | 325 | Basic |
| Science | N/A | N/A | 340 | Basic |

Nature Journals

Another way academics were evaluated was through the student's Nature Journals. Nature Journals were an important part of the EBEC because they created an intentional path for the students. Field trips can sometimes be overwhelming and students may not know how to direct their attention, especially students that exhibit attention problems. Therefore, it was essential to prepare students in advance for the Nature Trip by introducing a planned set of tasks that were connected to the content and concepts related to sustainability and the environment. Preloading information about the trip, provided students with defined knowledge about the topic that they were then able refine and expand on during their experience. It also helped develop confidence in what they did know and decrease anxiety about the unknown. The data collected in the Nature Journals guided class discussions, provided examples, assisted in questioning and ultimately, lead to personal conclusions. Students were constantly predicting and evaluating their experiences, which proved to be a vital tool in increasing their self-confidence and shaping their environmental values. The growth and development of the student's critical thinking skills, observations, artistic confidence, and general writing abilities are demonstrated in his/her Nature Journal entries.

Examples of each student's Nature Journals can be found in the Appendix A-H.

Examples of Lesson Plans can be found in the Appendix I.

Culminating Nature Fair Project

To validate students' increased knowledge about the environment, they were asked to participate in a Nature Project. Their task was to put together a project board to demonstrate their mastery of one of their Nature Trips. This authentic culminating project assessed the students' ability to use their data, analyze it, discuss how it related to sustainability, and present it to the entire school and their parents during a Nature Fair hosted by the students. This assignment was project-based; provided many opportunities for development and additional research; and allowed them to work with a tangible experience that was motivating and showcased their understanding.

After the presentations, classes were invited to tour the presentation boards and ask students questions about their experiences. Students from the school were amazed by the subject content and were very engaged with the Nature Trip students. Resource children normally feel isolated and different from other children, however when they were suddenly placed in the spotlight and praised for their work, the effect was empowering. They became the teachers, leaders and experts on their projects and received much praise for their accomplishments. Perhaps the best example of empowerment was observed when a student asked Olivia, the second grader, how they could sign up for this class next year. Olivia's answer was "You don't really sign up for Mrs. Aragon's class. You see, I learn differently and the best way I can learn is by taking these Nature Trips. I learn in a different way so that is why I am in Mrs. Aragon's class." Olivia provides us with a classic example of how her behavior changed about her

learning disability and she was able to convey her message to others so they could understand that her disability was not a limitation but a difference in learning style.

The Culminating Nature Fair Project information and speech requirements are located in Appendix J.

IEP Goal Progress

Tables 30-37 describe the student's IEP goal and their progress over the year. Overall, most students attained their IEP goal or exceeded it. Others came very close to meeting their goal and will continue working on them when the 2013-2014 school year begins.

Table 30

Olivia's Progress on IEP Goals

| IEP Goals | Baseline | Midline | Final |
|---|---|---|---|
| <u>Writing Goal:</u> Given a graphic organizer, Olivia will write a paragraph using clear and cohesive sentences with 85% correct for a trimester as measured by work samples and & observation record. | 40% each occurrence—skill just recently introduced | 60% trimester—working on prerequisite skills | 90% with help—attained goal |
| <u>Reading Goal:</u> When reading a selection aloud, Olivia will read with a manner that sounds like natural speech (rate, smoothness, expression) at 70 correct words per minute, on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples and observation record. | 40 cwpm each occurrence—skill recently introduced | 66 cwpm on 1st grade text trimester—making great progress | 80 cwpm on a high 1st grade text average per week—attained goal |
| <u>Mathematics Goal:</u> Olivia will know her addition and subtraction facts 0-10 with 95% correct for a trimester as measured by work samples & observation record. | 85% each occurrence—making steady progress | 85% (still has number reversals) trimester—making great progress | 95% trimester—exceeded goals |

Table 31
Emma's Progress on IEP Goals

| IEP Goals | Baseline | Midline | Final |
|--|--|--|--|
| <i>Writing Goal:</i> Given grade level text, Emma will use knowledge of basic punctuation and capitalization when writing independently in each sentence as measured by work samples. | 50% each occurrence—making steady progress | 70% each occurrence—making great progress | 90% on each occurrence—accomplished goal |
| <i>Reading Goal:</i> Given a written/ verbal prompt, Emma will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 120 correct words per minute on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples. | 78 cwpm on a 1st grade text—making steady progress | 88 cwpm on a high 1st grade text—making great progress | 110 cwpm on a 2nd grade text—accomplished goal |

Table 32
Lily's Progress on IEP Goals

| IEP Goals | Baseline | Midline | Final |
|---|--|---|--|
| <u>Communication Goal:</u> In the classroom, Lily will use appropriate loudness level for various situations in 4 of 5 opportunities for 2 consecutive trials as measured by observation record. | Skill Recently Introduced | Accuracy 75% Consistency 4/5— Making great progress | 4/5 trials with 5/5 consistency— Attained goal |
| <u>Writing Goal:</u> Given a written assignment, Lily will create a multi-paragraph essay that develops a topic sentence and includes simple supporting facts and details as measured by work samples & observation record. | 1 paragraph independently— Making progress | 3+ paragraphs with prompting— Making great progress | 3+ paragraphs with prompting— Attained goal |
| <u>Reading Goal:</u> When reading a selection aloud, Lily will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 135 correct words per minute on a 3 rd grade reading passage with 90% correct for 6 consecutive trials as measured by work samples. | 118 cwpm on 2nd grade text— Making good progress | 128 cwpm on a 3rd grade text— Making great progress | 130 cwpm with 95% of the passage, weekly— Making great progress |
| <u>Math Goal:</u> Given word problems, Lily will determine when to break a problem into smaller parts in 4 of 5 opportunities as measured by work samples & observation record. | 50% with help— Skill recently introduced | 60% with confirmation with adults— Making progress | 3 out of 5 with initial help— Making great progress |

Table 33

Alex's Progress on IEP Goals

| IEP Goals | Baseline | Midline | Final |
|--|---|---|--|
| <u>Communication Goal:</u> In the classroom and speech room, Alex will formulate grammatically correct sentences overall when speaking and writing with 80% correct without prompts for 4 out of 5 opportunities as measured by observation record. | New Goal—Skill recently introduced | 60% accuracy, 3/5 consistency— Making progress. We are working on identifying when something doesn't sound right. | 80% accuracy with 4/5 opportunities— Attained Goal. |
| <u>Communication Goal:</u> In the speech room and in the classroom, Alex will take turns and pay attention to nonverbal cues given by the listener in a speaking situation with 80% correct for 4 out of 5 opportunities without prompts as measured by observation record. | New Goal—Skill recently introduced | 65% accuracy, 4/5 consistency— Making progress. Needs some adult prompting. | 80% accuracy with 4 out 5 opportunities— Attained Goal. |
| <u>Communication Goal:</u> In the speech room and classroom, Alex will tell a story including 3 simple details with grammatically correct sentences with 80% correct for 4 out of 5 without prompts as measured by observation record. | New Goal—Skill still recently introduced | 55% accuracy, 3/5 consistency— Making progress. We are working on short, concise summaries. Needs adult prompting. | 85% accuracy with 4/5 opportunities— Attained Goal. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Alex will create a single paragraph that develops a topic sentence and includes simple supporting facts and details independently for a trimester as measured by work samples and observation record. | New Goal—Skill recently introduced | 1 paragraph 75% independently but still requires some help, per trimester— Making great progress. | 1 paragraph independently for a trimester— Attained Goal. |

| | | | |
|---|--|--|--|
| <p><i>Reading Goal:</i> When reading a selection aloud, Alex will distinguish the main idea and some supporting details in the passage with 85% correct for a trimester as measured by word samples & observation record.</p> | <p>New Goal—Skill recently introduced</p> | <p>60% accuracy per trimester— Making good progress.</p> | <p>90% correct per trimester— Attained Goal.</p> |
|---|--|--|--|

Table 34

Violet's Progress on IEP Goals

| IEP Goals | Baseline | Midline | Final |
|--|---|--|---|
| <p><u>Communication Goal:</u> In the speech room, resource room and classroom, Violet will identify and use regular and irregular verbs, adverbs, prepositions, and coordinating conjunctions in writing and speaking in 4 of 5 opportunities given no more than 1 prompt each opportunity with 80% accuracy as measured by observation record.</p> | <p>50% accuracy with 4/5 opportunities— Skill still recently introduced. We are working on adverbs and prepositions.</p> | <p>65% accuracy with 4/5 opportunities— Making progress. We are working on conjunctions, regular verbs, and irregular verbs. She is making good progress.</p> | <p>80% accuracy with 4/5 opportunities— Attained Goal.</p> |
| <p><u>Communication Goal:</u> In the speech room, resource room, and classroom, Violet will ask questions and support answers by connecting prior knowledge with literal and inferential information found in text in 4 of 5 opportunities given no more than 1 prompt with 80% accuracy each opportunity as measured by observation record.</p> | <p>New Goal--Skill recently introduced.</p> | <p>50% accuracy with 4/5 opportunities. Working on answering questions using information found in a story.</p> | <p>80% accuracy with 4/5 opportunities— Attained Goal.</p> |
| <p><u>Writing Goal:</u> Given a graphic organizer, Violet will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points independently in 5 paragraphs as measured by work samples and observation records.</p> | <p>1 paragraph independently— Making great progress.</p> | <p>4 paragraphs with help— Making great progress.</p> | <p>4 stronger paragraphs, 50% independently, 50% with help. Making excellent progress.</p> |

Nature and Outdoor Education

Reading Goal: When reading a selection aloud, Violet will use previous knowledge and ideas from illustrations, titles, topic sentences, clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record.

| | | |
|---|---|---|
| 40% accuracy per trimester— Making progress. | 65% accuracy per trimester— Making great progress. | 90% accuracy per trimester— Exceeded goal. |
|---|---|---|

Table 35

Nick's Progress on IEP Goals

| IEP Goal | Baseline | Midline | Final |
|---|---|---|---|
| <u>Communication Goal:</u> In the speech room, resource room, or classroom, given one verbal/ visual prompt Nick will use conjunctions to form grammatically correct complex sentences in speaking and writing in 4 of 5 opportunities for 3 trials as measured by observation record. | 65% accuracy with 4/5 opportunities— Making progress. | 70% accuracy with 4/5 opportunities— Doing well when given two sentences to combine. | 75% accuracy with 4/5 opportunities— Making great progress. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Nick will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with fewer than 4 prompts in 2 paragraphs as measured by work samples and observation record. | 4 paragraphs with help and prompting— Making progress. | 1 paragraph independently with 10+ prompts reminding to stay on task. Behavior interferes with learning. | 1 paragraph independently with 6 prompts— Making steady progress, but inability to focus interferes with his progress. |
| <u>Reading Goal:</u> When reading a selection aloud, Nick will use previous knowledge and ideas from illustrations, titles, topic sentences clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record. | 60% accuracy per trimester— Making great progress. | 70% accuracy weekly—Making great progress. | 80% accuracy per trimester— Almost there, he is making great progress. |

Table 36

Jackson's Progress on IEP Goals

| IEP Goal | Baseline | Midline | Final |
|---|--|--|--|
| <u>Writing Goal:</u> Given a written assignment, Jackson will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with 80% correct for a trimester as measured by work samples and observation record. | 40% accuracy per trimester—Skill still recently introduced. | 4 paragraphs with help (60%) per trimester—Making progress. | 80% accuracy with 3 paragraphs with some help per trimester—Attained Goal. |
| <u>Reading Goal:</u> When reading a selection aloud, Jackson will read narrative and expository text aloud with fluency and accuracy with appropriate pacing, intonation, and expression with 90% correct for a trimester as measured by work samples and observation record. | 98 cwpm (95% correct) on a high 1st grade text per trimester—Making steady progress. | 112 cwpm on a 2nd grade text per week with (95% accuracy)—Making great progress. | 120 cwpm on a high 2nd grade text per week (95% accuracy)—Attained Goal. |
| <u>Mathematics Goal:</u> Given a calculator, Jackson will determine when and how to break a problem into simpler parts when presented with single and multi-step problems solving with 75% correct for a trimester as measured by work samples and observation record. | 50% accuracy per trimester—Skill recently introduced. | 60% accuracy per trimester—Making progress. | 70% accuracy per trimester—Almost met goal. |
| <u>Social/ Emotional Goal:</u> With direct verbal prompts, Jackson will stay on-task when completing an assignment with fewer than 3 prompts for a trimester as measured by observation record. | 7 prompts per trimester—Skill still recently introduced. | 1-3 prompts per trimester—Attained goal. | 1-3 prompts per trimester—Maintained the progress. |

Table 37

Claire's Progress on IEP Goals

| IEP Goal | Baseline | Midline | Final |
|---|--|--|--|
| <p><u>Communication Goal:</u> In the speech room, resource room and classroom, Claire will tell and/ or write a story including a main idea, five relevant details, and a closing sentence in 4 of 5 opportunities for 5 consecutive trials given 3 verbal/ visual prompts as measured by observation record.</p> | <p>New Goal—Skill recently introduced.</p> | <p>60% accuracy with 3/5 consistency—Making progress. We are working on identifying the main idea and details of a paragraph.</p> | <p>80% accuracy with 4/5 opportunities—Attained goal.</p> |
| <p><u>Communication Goal:</u> In the speech room, resource and classroom, Claire will use sentence, word context clues, and knowledge of synonyms, antonyms, root words, prefixes, etc to explain meanings of unknown words with 80% correct for 4 out of 5 trials as measured by observation record.</p> | <p>New Goal—Skill recently introduced.</p> | <p>Working on prerequisite skills.</p> | <p>70% accuracy with 4/5 trials—Making great progress.</p> |
| <p><u>Writing Goal:</u> Given a written assignment, Claire will create a multi-paragraph expository composition that establishes a topic, key ideas, or events in sequence, provides details and transitional expressions with link paragraphs, and offers a concluding paragraph that summarizes the key ideas with 80% correct for a trimester as measured by work samples and observation record.</p> | <p>65% accuracy in a trimester—Skill recently introduced.</p> | <p>70% accuracy in a trimester—Making great progress.</p> | <p>85% accuracy in a trimester—Attained goal. Made excellent progress in her writing.</p> |
| <p><u>Reading Goal:</u> Given a graphic organizer, Claire will identify the main idea of the text and identify statements within that text, which support the main idea with 85% correct for a trimester as measured by work samples and observation record.</p> | <p>75% accuracy per week—New goal but making progress.</p> | <p>80% accuracy in a trimester—Making great progress.</p> | <p>85% accuracy in a trimester—Attained goal and worked very hard.</p> |

| | | | |
|---|--|--|--|
| <p><u>Mathematics Goal:</u> Given a chart or graph, Claire will use information from a graph or equation to answer questions about a problem situation with 85% correct for a trimester as measured by work samples and observation record.</p> | <p>65% accuracy in a trimester—Skill recently introduced.</p> | <p>80% accuracy in a trimester—Making great progress.</p> | <p>90% accuracy in a trimester—Exceeded goal.</p> |
| <p><u>Social/ Emotional Goal:</u> With modeled prompts, Claire will use the agreed-upon problem solving model independently to find appropriate solutions to a problem which she is personally involved in independently each opportunity as measured by observation record.</p> | <p>New Goal—Skills recently introduced.</p> | <p>60% accuracy independently—Making progress.</p> | <p>80% accuracy—Attained Goal Megan will independently find appropriate solutions. Great job.</p> |

Researcher's Observations

As mentioned previously, assessing how students changed in their attitudes toward environmental issues was a key part of evaluating the EBEC. One way the researcher did this was by using the rubric (Table 38) found from the article “Assessment and Evaluation for Outdoor/ Environmental-Education” by Bert Murphy. Personal thoughts about the environment had changed with each student and it was clear to see that the EBEC was effective. All students had scored a 2 or higher, but scores primarily ranged between the 3-4. A full evaluation for each student can be found in Appendix A-H in the student profile section.

Table 38

Assessment of Changes in Attitudes Toward Environmental Issues Rubric

| Assessment of Changes in Attitudes Towards Environmental Issues | | | | |
|---|---|---|---|--|
| | Level 1 | Level 2 | Level 3 | Level 4 |
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

In addition to the rubric, students were observed. A summary of the researcher's observations is below.

Olivia

During the course of the program, Olivia became noticeably less frustrated with new material and began to enjoy school. Although still systematic in her approach to accomplishing a task, she was flexible, ready to listen and accepted help from others. She incorporated many of her Nature Trip experiences into her classroom written assignments. It was clear her self-confidence, behavior, attitude, and academics had changed in a positive way.

Emma

Emma grew socially through the program. She became less attention seeking through talking and focused more on the information she was receiving during the Nature Trips. She grew noticeably more empowered as she was able to share her knowledge and receive positive attention and support from teachers and students. This change in behavior led to Emma's increased self-esteem and academic growth.

Lily

Lily grew in her academics, self-esteem, and behavior. As the year progressed, she became more engaged in the material and with her classmates. She shared her experiences and learned how to advocate for herself. Lily made tremendous growth in her creativity and her artistic skills. Appendix C has a copy of her nature journal. When comparing her drawings from the beginning of the year to the end of the year, you will note that she became more detailed and controlled.

Alex

In the beginning of the year, Alex was experiencing difficulty making friends and had difficulties interpreting social cues. Alex's exposure to the Nature Trips and his increased interactions with other students helped him to improve his social skills. As his behavior changed, he became more focused on his academics and his self-esteem increased because he now had friends that he could communicate with. He became noticeably less anxious and his threshold for difficult situations grew to a new standard.

Violet

Violet's self confidence blossomed. Being an English Language Learner has been difficult for her and her English Language Arts has not progressed at the same rate as others in her grade. However, due to her ability to physically experience concepts during her Nature Trips, her academics and her understanding of the world grew. She still maintained her social personality, but there was a more depth to her conversations as she discussed environmental issues.

Nick

Nick's attitude toward school went from avoidance to enthusiasm, and this led to academic improvements. For example, he started the year with a dislike for reading, but as time progressed, he met his classroom-reading goal and improved by an entire grade level. His attention was noticeable during the Nature Trips. During those times, he was engaged, questioning, focused and connected with the material.

Jackson

The program had the strongest effect on Jackson's behavior. He exhibited less negative attention-seeking conduct and became more of a role model. Although Jackson has always exhibited leadership potential, he became more thoughtful and considerate of others. He was observed teaching younger children how to tie their shoes, he would help others in sports, and he was always willing to help in the class by running errands. His self-esteem grew as others looked up to him as a leader and as a result, he became more engaged in his academics. Jackson still exhibited impulsivity, however, it was noticeably diminished.

Claire

Claire's academics and her ability to focus have always been one of her strengths; however, her anxiety and difficulties communicating with her peers impacted her ability to make friends. Yet, with every Nature Trip, she became less anxious and more excited. She demonstrated leadership qualities and her social skills blossomed over the course of the year. Slowly she was able to advocate for herself and develop friendships.

Chapter 5

Conclusion

Introduction

Many children with learning disabilities are challenged by behavior problems that can range from direct attention fatigue, mental disorders and today's popular diagnosis of ADHD. Educators are tasked to keep these students' attention, help them develop learning skills and prepare them for today's world. For these students, the advent of overcoming these difficulties often results in low self-esteem, sub-par academic performance and social inadequacies that further compound the stress being experienced when they are unable to connect to the subject matter being discussed in the classroom setting.

There are varied teaching approaches that are dedicated to this subset of school age children. Many educators believe that infusing education with direct experiences, especially those with nature, provides the best outcomes for children with learning disabilities. The freedom of the outdoors temporarily unencumbers these children from the classroom setting where many experience frustration, anxiety and rigidity. It places them in an environment where they are able to engage in the subject matter utilizing their multiple intelligences while being exposed to sunshine, fresh air, and physical activity.

As indicated previously, the purpose of this study was to create a program that increased the mental and physical stimulation of students with learning disabilities by developing a cross-curricular course that centered on Environment-Based-Education and

enforced the California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects. It was important to adhere to the standards in order to maintain the same quality of education being received by others in the same educational level. The study provided these students an opportunity to succeed by immersing them in an environment where success was possible.

There were multiple stakeholders in this study and their participation was key to the implementation and integration of the program. They were vital to the logistics of the designated activities and had to make a long-term commitment to the project's completion. Aside from the official supporters of this project, the key stakeholders whose buy-in and engagement was crucial were the students who dedicated themselves to this new learning environment and teaching approach. Their data collection was necessary in order to properly evaluate outcomes.

Perhaps one of the greatest unforeseen benefits of the project was discovering the bevy of educational opportunities available within the local community and meeting dedicated individuals whose passion for environmental awareness was palpable during our Nature Trips. Their knowledge and excitement for the subject matter being introduced was easily transferred to many of the student participants. The environment, literally and figuratively instilled genuine curiosity where there were no preconceptions or judgments and the children felt comfortable in asking questions, developing theories and generating conclusions.

In addition, the educator and many of the parents observed a change in the group dynamics. A supportive infrastructure was created and friendships were formed. Children, who had once felt isolated, even in the classroom setting, now blossomed in

social situations and self-confidence. The program received rave reviews from those who witnessed its impact on the students. It was so successful that it will be continued in subsequent years.

Limitations

There were several limitations to this project. Some of which were expected and some of which were unforeseen, but understandable. Expected limitations were comprised of a small student sample size, occasional “Nature Trip” absences, and limited time allotted to the EBEC. Unforeseen limitations identified were in the parent and teacher questionnaires. Due to contrasting quantitative scores and observations, it is clear that there was a need for a detailed description of self-esteem that could be specifically quantified and on-task behavior should have been quantified and correlated to specific percentages.

The small student sample size of eight was limiting and needs to be tested on a larger scale with varying socioeconomic participants. The combination of a low student sample size and their similar socioeconomic backgrounds was beneficial to the educator because it lent itself to a higher parental participation and the management of Nature Trips. The average ratio was 1:2, one adult per two children.

Nature Trip absences, due to illnesses, were reported by parents. However, there were a limited number of absences because most children looked forward to the experiences. In addition, when the absent child returned to the classroom, his/her classmates engaged them in conversation updating the student on the experience and shared the photographs of the trip. Their Nature Journals were also reviewed and the information was provided that would be required for future discussion sessions.

There was a limited amount of time allotted to Environment-Based-Education Curriculum because the study was conducted with a pullout Resource Class and not a

Special Day Class (SDC). There was still a need to maintain a balance between the general education activities and the EBEC because students had responsibilities for both classrooms. Additionally, time spent in Resource was different for every student per his or her IEP; so scheduling was a crucial component to maintaining the equilibrium of the program. Activities were planned ahead of time to inform teachers of when students would be missing their class, due to a Nature Trip, which lessons would be covered during that time, and which lessons would have to be addressed during non-EBEC time. Because the children were exposed to two different teaching approaches, the level of exposure to this teaching method was superficial and could not be expressed in an in-depth manner for full integration and evaluation.

A more detailed description of self-esteem that could be quantified would have assisted the evaluators in rating the increase or decrease of the behavior in each child. For example, if a better description were provided of what each number represented, the Final Parent Survey would have reflected a better understanding of the concept. In some cases the qualitative comments did not correlate with the quantitative methods utilized for this project.

On task-behavior question also had problems correlating the qualitative comments with the quantitative scores. For example a three (3) in self-esteem correlated to 60%, however the comments reflected a misunderstanding of the score system. Because evaluators were unaware of the percentage associated with the numerical rating system, this was a limitation in the comprehension of the evaluation.

In addition to the problems identified above, the differences between the three questionnaires and final parent survey questions did not provide clear data on outcomes.

Evaluators were perceived as having contrasting perceptions of the rating system and therefore it was unclear as to the degree of changes in the behavior of the children. It is questionable whether some parents' ratings actually reflected their children's personal improvement or based on their ratings on personal standards of what the rating represented.

Recommendations

It is recommended that an expansion in exploratory education be considered for all children not just children with learning disabilities. In addition, it is proposed that exploratory education be specifically integrated during the elementary school years.

Children with learning disabilities experience multiple challenges in conventional learning environments. The information appears intangible and the content is sometimes viewed as being too “foreign, exotic or untouchable” for it to be appealing. Yet when these same children are placed in an exploratory environment, the fascination factor is awakened and learning takes place. The present conventional teaching approach where the teacher gives, the student receives and then regurgitates is not a successful teaching style for most children especially those with learning disabilities. When considering the general student population, it is questionable whether those “C” students who advance grades from one grade to the next would also benefit from this approach. If the goal is “learning” and not purely “regurgitation of information” then perhaps it is time to consider a teaching overhaul where the fascination factor for the children is a priority and the fascination factor for teaching creatively is also valued. Learning has infinite potential when students and teachers share in the fascination factor and there is no child that could not benefit from that equation.

During the elementary school years, children are in a stage of development where experiences associated with competence and pride can have life-long effects. School is a crucial variable that can affect the development of a child in various areas. The exploratory education approach at this stage of psychosocial development can provide an

environment where children are able to learn functional skills, increase their independence and develop self-esteem. As shown in this project, elementary school children developed socially and were able to engage more fully in the educational process. More research on this subject is required to support this correlation.

Conclusion

School can be an inspiring portal to the world if fascination is present. Teachers have a moral responsibility to build a classroom of students that embrace curiosity and excitement for the unknown, while reflecting on their knowledge and experiences to come to personal conclusions. The Environment-Based-Education Curriculum was effective for these eight students. They used their senses to experience the world around them and enhance their learning experience by engaging in the present activity. Since each community is unique, the term “environment” might mean different things for other students at other schools. However, this program included local hikes in the mountains, a trip to Ancapa Island, and a concentration on sustainability. Whatever “environment” a student might be in, the EBEC works on several levels, because the curriculum beckons the students to engage in his/ her surroundings. Through nature experiences, their culture, religion, family values, and peer relationships, students learned to be problem-solvers, critical thinkers, an environmental stewards, and they recognized that at any age, they have a choice in how they want their world to look and which actions to take toward that vision.

The program also encompassed a multi-sensory approach to education that allowed the room for all multiple intelligences to evolve. This method of teaching can be and was beneficial when working with English Language Learners. By incorporating multiple ways of understanding material, Specially Designed Academic Instruction in English or SDAIE strategies were utilized consistently.

With today’s technology centered lives, students need to be taught to balance all the technology driven media and the natural world. The natural world provides

opportunities to engage in real life experiences by manipulating items and ideas through the use of their senses, which cannot be replicated on a computer. Students develop their communication and social skills while working together instead of depending on electronic media to provide the forum. There is no replacement for human interaction.

“Outdoor and environmental education is important to the overall growth of a students character. In a world beset by global problems, it is our responsibility to not only provide students with decision making abilities but also make them aware that they are part of the solution”. (Murphy, 2011)

References

- Basile, C., & White, C. (2000). Young Children as Environmental Citizens.
- BBC News. (2010, May 1). '*Green*' exercise quickly 'boosts mental health'. Retrieved November 1, 2011, from BBC News:
<http://news.bbc.co.uk/2/hi/health/8654350.stm>
- Birchard, C., & Crook, A. (2010). The Single Concept Field Trip. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 34-37). Ontario, Canada: New Society Publishers.
- Burley, H., & Price, M. (2003, Summer). What Works with Authentic Assessment. *educational Horizons* , 193-196.
- CA Department of Education. (2013, 04 09). *California Modified Assessment Participation Criteria*. Retrieved from CMA Participation Criteria and Definition of Terms: <http://www.cde.ca.gov/ta/tg/sr/participcriteria.asp>
- Channel Islands Restoration . (n.d.). *Channel Islands Restoration*. Retrieved from Channel Islands Restoration:
<http://www.channelislandsrestoration.com/islands.htm>
- City of Ventura. (n.d.). *Parks and Urban Forestry*. Retrieved from City of Ventura:
<http://www.cityofventura.net/pw/parks>
- Conejo Recreation & Park District. (n.d.). *Conejo Creek North Park*. Retrieved from Conejo Recreation & Park District:
<http://www.crpd.org/parkfac/parks/conejocreeknorth.asp>
- Conejo Valley Guide. (n.d.). *Wildwood Park in Thousand Oaks*. Retrieved from Conejo Valley Guide: <http://www.conejovalleyguide.com/dosomethingblog/wildwood-park-in-thousand-oaks.html>
- Corcoran, P. B., & Pennock, M. (2010). Democratoc Education for Environmental Stewardship. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 20-24). Ontario, Canada: New Society Publishers.
- Geisel, T. S. (1971). *The Lorax*. New York, NY: Random House Children's Books.
- Grant, T., & Littlejohn, G. (2010). *Teaching Green the Elementary Years*. Toronto, Canada: New Society Publishers.
- Hammond, W. F. (2010). The Creative Journal: A Power Tool for Learning. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 66-70). Ontario, Canada: New Society Publishers.

- Hemmert, A. (2010). Waste-Free Lunches: A Lesson in Environmental Stewardship. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 172-178). Ontario, Canada: New Society Publishers.
- Hockenbury, D. H., & Hockenbury, S. E. (2014). *Discovering Psychology*. New York, NY: Worth Publishers.
- LAMountains.com. (n.d.). *Educational and Outreach Programs*. Retrieved from LAMountains.com: <http://www.lamountains.com/programs.asp>
- LAMountains.com. (n.d.). *Nature and Discovery Centers*. Retrieved from LAMountains.com: http://www.lamountains.com/programs_natureCenters.html
- Leslie, C. W. (2010). *The Nature Connection*. North Adams, MA: Storey Publishing.
- Louv, R. (2008). *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill, North Carolina: Algonquin Books of Chapel Hill.
- McConnell, R. L., & Abel, D. C. (2008). *Environmental Issues: An Introduction to Sustainability*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Meadows Arts and Technology Elementary School . (2012). *Reports*. Retrieved from Mates Charter: <http://www.matescharter.org/the-school/reports/>
- Moorpark College. (n.d.). *America's Teaching Zoo Exotic Animal Training and Management*. Retrieved from Moorepark College: http://www.moorparkcollege.edu/current_students/teaching_zoo/
- Moutoux, M. (2010). Evaluating Nature Journals. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 71-72). Ontario, Canada: New Society Publishers .
- Murphy, B. (2011). Assessment and Evaluation for Outdoor/ Enviro-Education. *Green Teacher* (94), 39-41.
- National Environmental Education Foundation. (2011, February 11). *Fact Sheet Children's Health and Nature*. Retrieved 2012, from Health & Environment: A National Environmental Education Foundation Program: <http://www.neefusa.org/assets/files/NIFactSheet.pdf>
- Ormrod, J. E. (2008). *Human Learning* (5th Edition ed.). Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.
- Parsons, S. C. (2010). The Power of Stories. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 218-224). Ontario, Canada: New Society Publishers.

- Reading, J. (2010). Guiding Your School Toward Environmental Literacy. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 25-32). Ontario, Canada: New Society Publishers.
- Redbrick Pizza Cafe. (n.d.). *Our Story*. Retrieved from Redbrick Pizza Cafe: <http://www.redbrickpizza.com/index.htm>
- Robinson, K. (2010, October). *Changing Education Paradigms*. Retrieved April 2013, from TED Ideas worth spreading: http://www.ted.com/talks/ken_robinson_changing_education_paradigms.html
- Skoutajan, S. (Fall 2012). Defending Place-based Education. *Green Teacher: Education for Planet Earth* (97).
- Students for Eco-Education and Agriculture. (2008). *Seeag.org*. Retrieved from Seeag.org: <http://www.vcagriculturaleducation.com>
- Sustainable Communities*. (2012). Retrieved from columbiacees.college.com
- The California Department of Education. (2010). *Common Core State Standards*. Retrieved from California Department of Education: <http://www.cde.ca.gov/re/cc/>
- Tracy, J., & Glaser, K. (2010). Environmental Project Learning. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 12-19). Ontario, Canada: New Society Publishers.
- TreePeople. (n.d.). *Environmental Education Programs*. Retrieved from TreePeople: <http://www.treepeople.org/environmental-education-programs>
- Ward, J. (2009). *Let's Go Outside!* Boston, MA: Trumpeter.
- Wiggins, G., & McTighe, J. (2005). *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Willis, T. (2012, October 9). *10 Reasons To Take Your Students Outside*. Retrieved 2012, from C&NN Connect: <http://childrenandnature.ning.com/group/naturalteachers/forum/topics/10-reasons-to-take-your-students-outside/>
- Wilson, R. A. (2010). Getting An Early Start: Environmental Education for Young Children. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 2-8). Ontario, Canada: New Society Publishers.
- Wright, C. (2010). Green Empowerment in Kindergarten. In T. Grant, & G. Littlejohn, *Teaching Green the Elementary Years* (pp. 9-11). Ontario, Canada: New Society Publishers.

Appendix

Appendix A: Olivia

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goals | Baseline | Midline | Final |
|---|---|---|---|
| <i>Writing Goal:</i> Given a graphic organizer, Olivia will write a paragraph using clear and cohesive sentences with 85% correct for a trimester as measured by work samples and & observation record. | 40% each occurrence—skill just recently introduced | 60% trimester—working on prerequisite skills | 90% with help—attained goal |
| <i>Reading Goal:</i> When reading a selection aloud, Olivia will read with a manner that sounds like natural speech (rate, smoothness, expression) at 70 correct words per minute, on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples and observation record. | 40 cwpm each occurrence—skill recently introduced | 66 cwpm on 1st grade text trimester—making great progress | 80 cwpm on a high 1st grade text average per week—attained goal |
| <i>Mathematics Goal:</i> Olivia will know her addition and subtraction facts 0-10 with 95% correct for a trimester as measured by work samples & observation record. | 85% each occurrence—making steady progress | 85% (still has number reversals) trimester—making great progress | 95% trimester—exceeded goals |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|--|---|--|
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 4-6 hours | 4-6 hours | 4-6 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | N/A | 1-3 hours | 1-3 hours |
| Does your child participate in any outdoor activities outside of school? | YES (rides horses and plays a lot of pretend activities outside games) | YES (visits the park, beach, and playing in the backyard) | YES (rides horses 1 time per week. Lots of playing in the backyard. Soccer practice 1 time per week) |
| How much time does your child spend having unstructured play? | 10+ hours | 10+ hours | 10+ hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | YES (7-9 hours) | YES (7-9 hours) | YES (7-9 hours) |
| From a scale from 1 to 5, 5 being the strongest, how | 3 | 3 | 3.5 |

| | | | |
|---|---|---|--|
| would you rate your child's self-esteem in general? | | | |
| What are your child's academic strength's and weaknesses? | Strengths: creative, great comprehension Weakness: numbers and writing | Strengths: comprehension, creative art Weakness: writing, spelling, math | Strengths: comprehension, creative, reading Weakness: spelling and anything timed |
| What are the child's social strengths and weaknesses? | Strengths: loyal, conscientious, empathy, compassionate Weakness: doesn't like to try new things, negative outlook | Strengths: loyal, empathy, creative play Weakness: physical boundaries, volume control, maybe too sensitive to what others think | Strengths: creative, loyal, loving Weakness: space boundaries, plays with younger kids, take it personal when others don't play by her rules. |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 1 | 3 | 4 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | Plays both in a group and alone depending on her mood. She gets frustrated with others. She is primarily a leader. She usually plays with younger kids. I think because she can boss them easier. When children don't want to play her game she takes it very personally and it will turn into a tantrum. | Plays more in a group. She gets frustrated with others easily. She is primarily the leader. | Plays more in a group. She gets frustrated with others easily. She is primarily the leader. |

| | | | |
|---|-------------------------|---|---|
| <p>Does your child primarily play with children their same age or different age?</p> | <p>Younger Children</p> | <p>Younger Children</p> | <p>Younger Children</p> |
| <p>Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school?</p> | <p>N/A</p> | <p>Positive in all three. I see her contribute more in her resource group. She seems more comfortable at school. Way less complaining when going to school.</p> | <p>Huge improvement! Much higher self-esteem. Very enthusiastic about nature and our environment and school in general. She told me a couple of weeks ago “this year, school just flies by! Last year went on forever.” Last year she would cry before school. No more tears! My Olivia is happy! What you and this program has done for Olivia is priceless (and of course MATES and her primary teacher.) I cannot wait to see her growth next year. Please continue the program.</p> |

Final Parent Survey

| Questions | Answers |
|---|--|
| <p>How did Environment-Based-Education and the natural outdoors helped improve your child’s (1) self-esteem, (2) attitude/behavior, and (3) academics?</p> | <p>(1) Self-esteem: I feel Olivia’s self-esteem has improved this year. I know that it has improved within her nature group. She seems to participate more and even be able to contribute when questions are asked. I feel that she would prefer if we quietly refer to her extra Resource room help; however, throughout the year, she has shifted more towards being proud of her involvement. I think she is excited about her end of the year presentation! Which is amazing growth. I hope it continues.</p> <p>(2) Attitude/ Behavior: Huge improvement! I think she is actually enjoying school. We used to have tears every morning and a lot of resistance. This year has been so much better. Olivia had a major problem with getting frustrated (quite easily) and then completely shutting down often seeming disrespectful, and recovering was very difficult for her. She has improved tremendously. She will get frustrated, but can now work through it most of the time. I feel like this has been such a key point for Olivia’s success because once she shuts down, absolutely no learning was possible. If she is not happy, she is not learning.</p> <p>(3) Academics: Her academics are improving. I think they will continue to improve with #1 and #2.</p> |
| <p>Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.</p> | <p>We were a family that tried to be aware of nature before Olivia joined the program. So this question is hard to answer. However, I would say <u>yes</u>. She <u>points out ice plants</u></p> |

| | |
|---|---|
| | and always includes that it is invasive at Anacapa Island and is taking over the native habitat. |
| Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain. | Big Yes! She gives me a hard time when we use paper plates. So now I think about it more and opt for dishes. She is proud that we compost. She helps me and participates in composting. We as a family are trying to be more sustainable. We have added five chickens to our family and eat their eggs. We grow our out fruits and vegetables. Olivia takes pride in it I think. She has a clear understanding of what sustainable means. She talks about turning the lights off when we are done. She has great ideas of how we can be more sustainable. |
| In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not. | <ol style="list-style-type: none"> (1) Compost Bin (2) We plan on getting a rain barrel. We learned about it at TreePeople. (3) We also learned that you could transplant succulents by just pacing a cutting in the earth. (4) We have worm bins. We grow worms to add to our garden. (5) We hatched praying mantis cocoons. We wanted to try to control the bugs without using pesticides. We also let ladybugs into our garden. |
| Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions? | I would love for Olivia to participate in the program next year. It has been so amazing that I am sad for my other daughter because she is not part of the resource room. Learning about our Earth and sustainability should be offered to all the students. But since I have also learned along Olivia's side, my entire family, and the Earth will benefit. Sometimes I felt it was rushed. It is a difficult day to travel and accomplish the tour and get home on time. I feel like if there was more time the kids could write more about what they learned. |

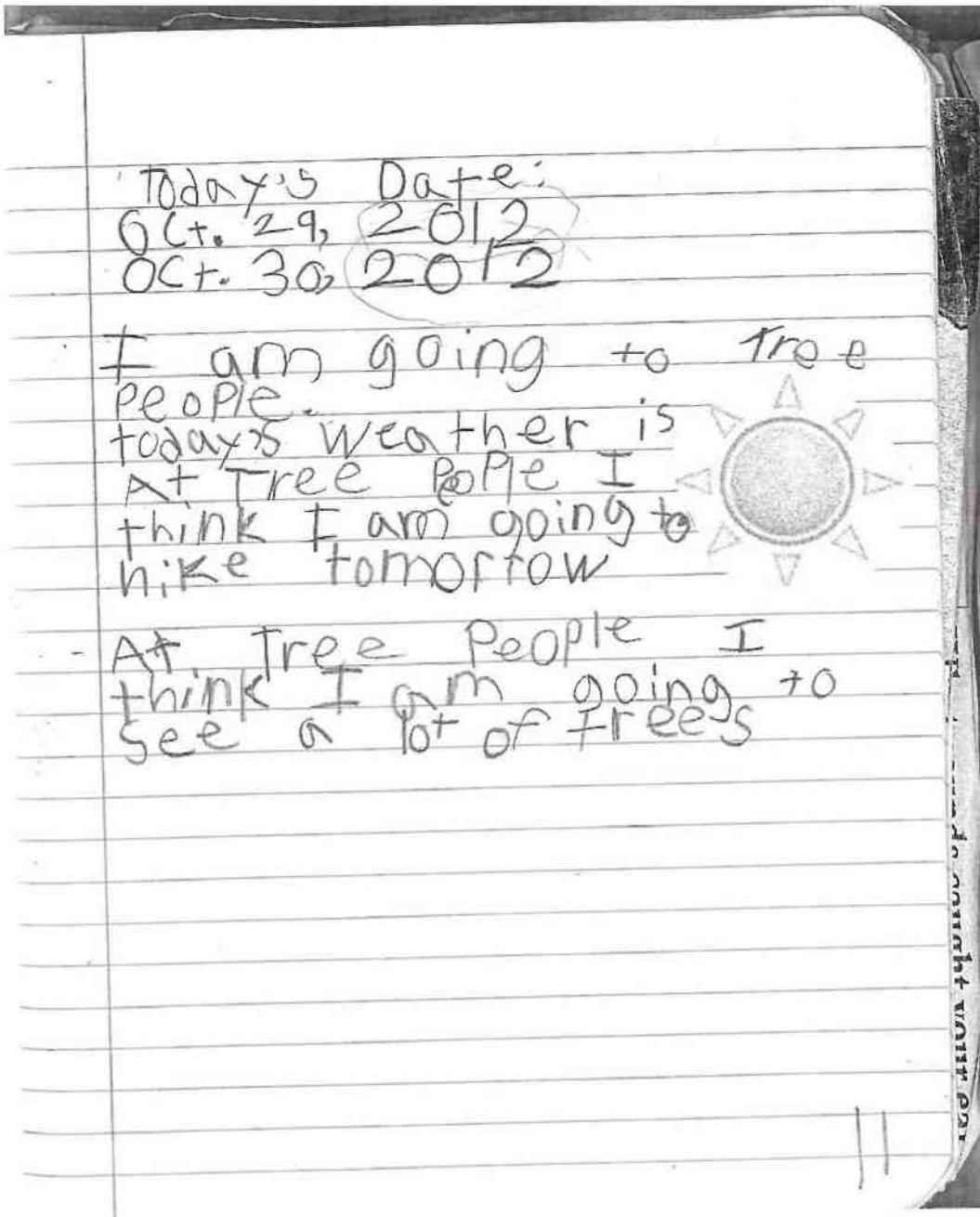
Teacher Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|--|---|---|
| What are the student's current grades? | Reading: Below Grade Level Writing: Below Grade Level Mathematics: On Grade Level with Support Science: On Grade Level with Support Social Studies: On Grade Level with Support | Reading: Resource/ Below Grade Level Writing: Below Grade Level Mathematics: Grade Level with Support Science: Grade Level Social Studies: Grade Level | Reading: On Grade Level Writing: Below Grade Level Mathematics: Below Grade Level Science: On Grade Level Social Studies: On Grade Level |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Visual Schedule • Extra time when needed • Seat at front of room • Directions given in a variety of ways • Fewer items on a page | <ul style="list-style-type: none"> • Visual schedule • More time on timed math tests • Seat at front of room • Increased time for verbal response • Graphic organizers | <ul style="list-style-type: none"> • Seat at front of room • Extra time • Small group instruction • Peer tutoring |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 4 | 4 | 4 |
| What are the student's academic strengths and weaknesses? | Strengths: Loves books, doing well in math, artistic Weaknesses: Spelling, reading independently | Strengths: Loves stories, hard worker Weaknesses: Writing | Strengths: Reading Weaknesses: Writing and Spelling |
| What are the student's social strengths and weaknesses? | Strengths: very articulate, has a heart of gold, kind, likes to share | Strengths: Great at sharing, kind friend Weaknesses: (Teacher did not | Strengths: Very kind and caring toward others. Always willing to |

| | | | |
|---|--|--|--|
| | Weaknesses: can be stubborn | answer) | help a classmate Weaknesses: N/A |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate. | One time in class since school started, she expressed that she doesn't like math and that math is hard. | She does not have any behavior issues | She does not have any behavior issues |
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 4 | 4 | 4.5 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 4 | 4 | 4: She is a slow starter |
| How does the student interact with others in an academic setting? | Works better alone, she can be both a leader and a follower, and she is usually cooperative with others. | Works well both in a group and alone, she is primarily a follower but has great ideas to share, and is very cooperative with others. | She works better alone, but loves to help others. She can be both a leader and follower, and she is cooperative. |
| How does the student interact with others in a social setting? | She enjoys playing with a group and she is cooperative with others. | She enjoys playing in a group and she is cooperative with others. | She enjoys playing in a group and she is cooperative with others. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | Olivia is well adjusted, has good focus, and a happy positive attitude in class. | Olivia seems to love school and learning. She has a positive attitude and tries hard in all areas. |

Nature Journal Samples

TreePeople

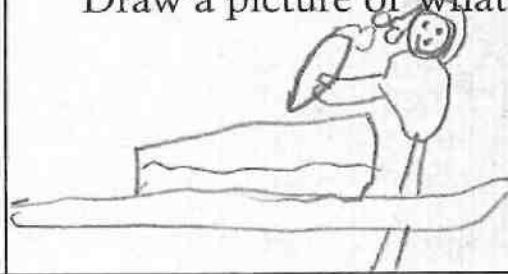


Seed Station

What do you know about seeds?

They grow
plants.

Draw a picture of what you did



What do you want to know about seeds?

Do seeds die?

What did you learn about seeds?

Seeds can
die if you don't
water them.

6

Soil Station

What do you know about soil?

It helps
Plants grow



Draw a picture of what you did.

What do you want to know about soil?

How does soil
help plants?

What did you learn about soil?

The mulch adds
vitamins to the
soil.

Air Station

What do you know about air?

We need
air to live

Draw a picture of what you did.



What do you want to know about air?

if we breathe
too much air
could we die?

What did you learn about air?

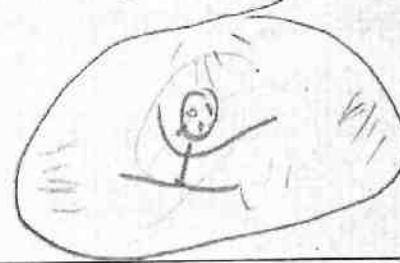
if we breath
to much air
we can die

Water Station

What do you know about water?

People use too
much water.

Draw a picture of what you did.



What do you want to know about water?

Can all the water
disappear
some day?

What did you learn about water?

no it wont
disappear.

Resource Station

What do you know about recycling?

Recycling is good
for the planet

Draw a picture of what you did.



What do you want to know about recycling?

How are recycled
products made?

What did you learn about recycling?

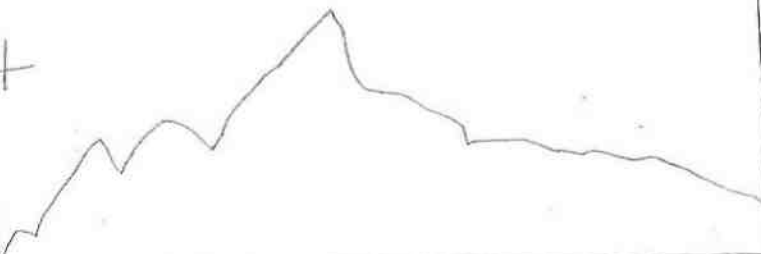
- 1 Reduce
- 2 Reuse
- 3 Recycle

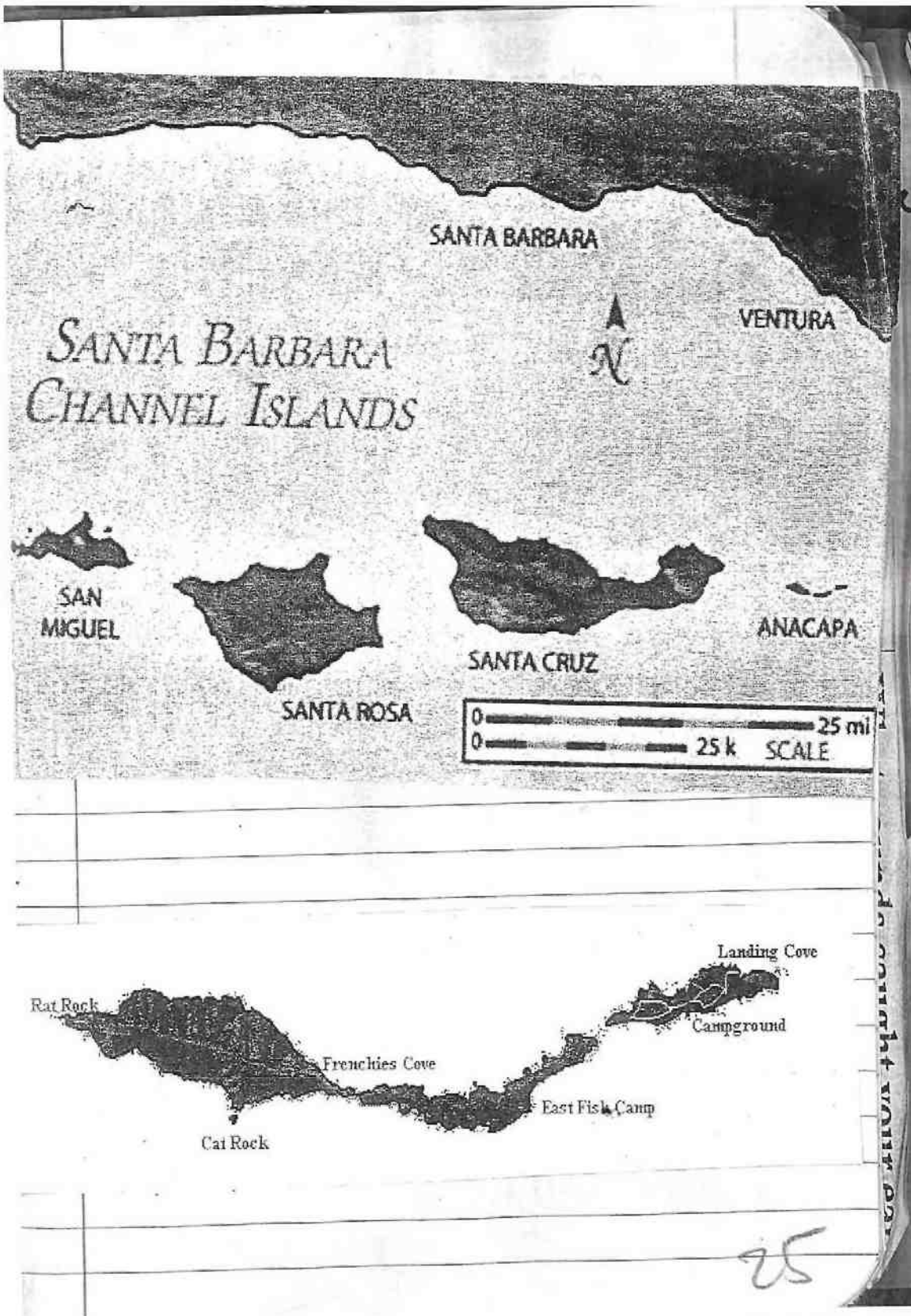
2

Notes

the lev let it
be. reduce CO₂.
we need our
OVCOTO let it
redos resicvi
reus

Ancapaca Island

| | |
|--|---|
| <p>These are some facts I know about Ancapaca Island.</p> <p>a volcano built the island</p> | <p>This is one thing I want to know about Ancapaca Island.</p> <p>how big people discover it?</p> |
| <p>This is one thing I learned about Ancapaca Island.</p> <p>ITS The smallest Island.</p> | <p>This is what Ancapaca Island looks like.</p>  |



Sea Lion vs. Seal

What's The Difference Between Seals & Sea Lions?

SEA LIONS:

- Earflaps
- Long hairless foreflippers
- Hindflippers rotate underneath to allow them to walk on land
- Swim underwater using foreflippers like wings of a bird
- Long smooth whiskers or vibrissae

SEALS:

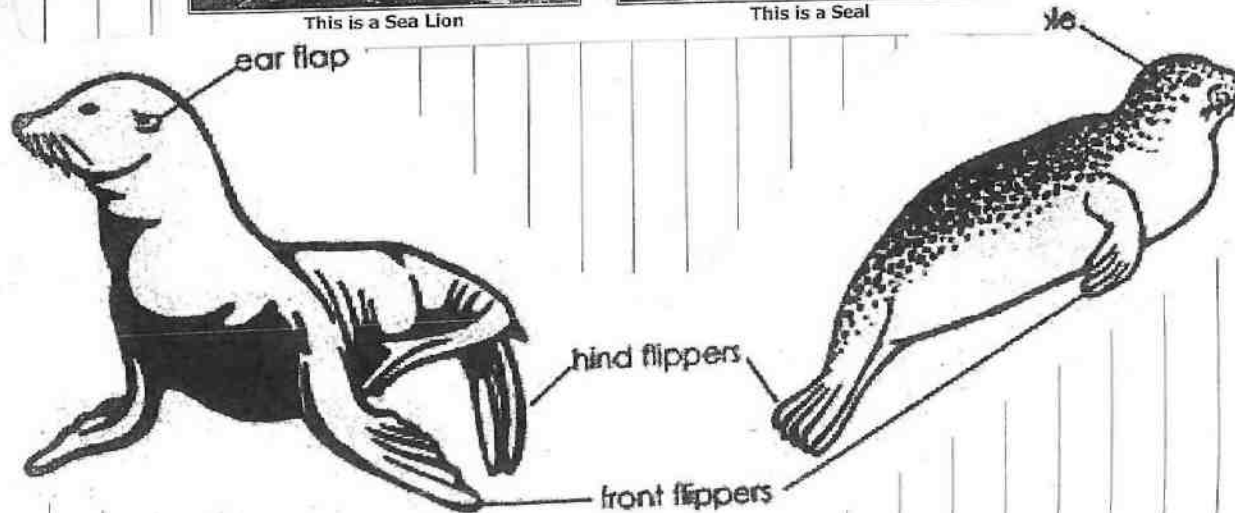
- Earholes
- Short, hairy foreflippers & long claws
- Move on land by wiggling on belly & keep hindflippers straight out
- Swim by steering with foreflippers and powering with hindflippers
- Whiskers are crimped or beaded



This is a Sea Lion



This is a Seal



family: Phocoenidae
PORPOISE

dorsal fin shape also different between the 2 groups

shorter beak almost blunt

look at this beak business

usually smaller, < 2m

pointy!

larger, upto 7m

cone-like, pointed

spade shaped, flat

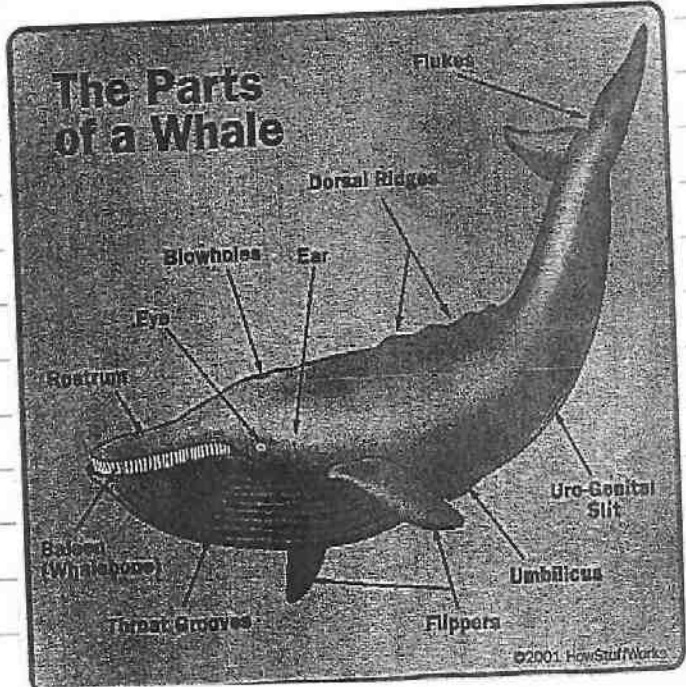
TEETH

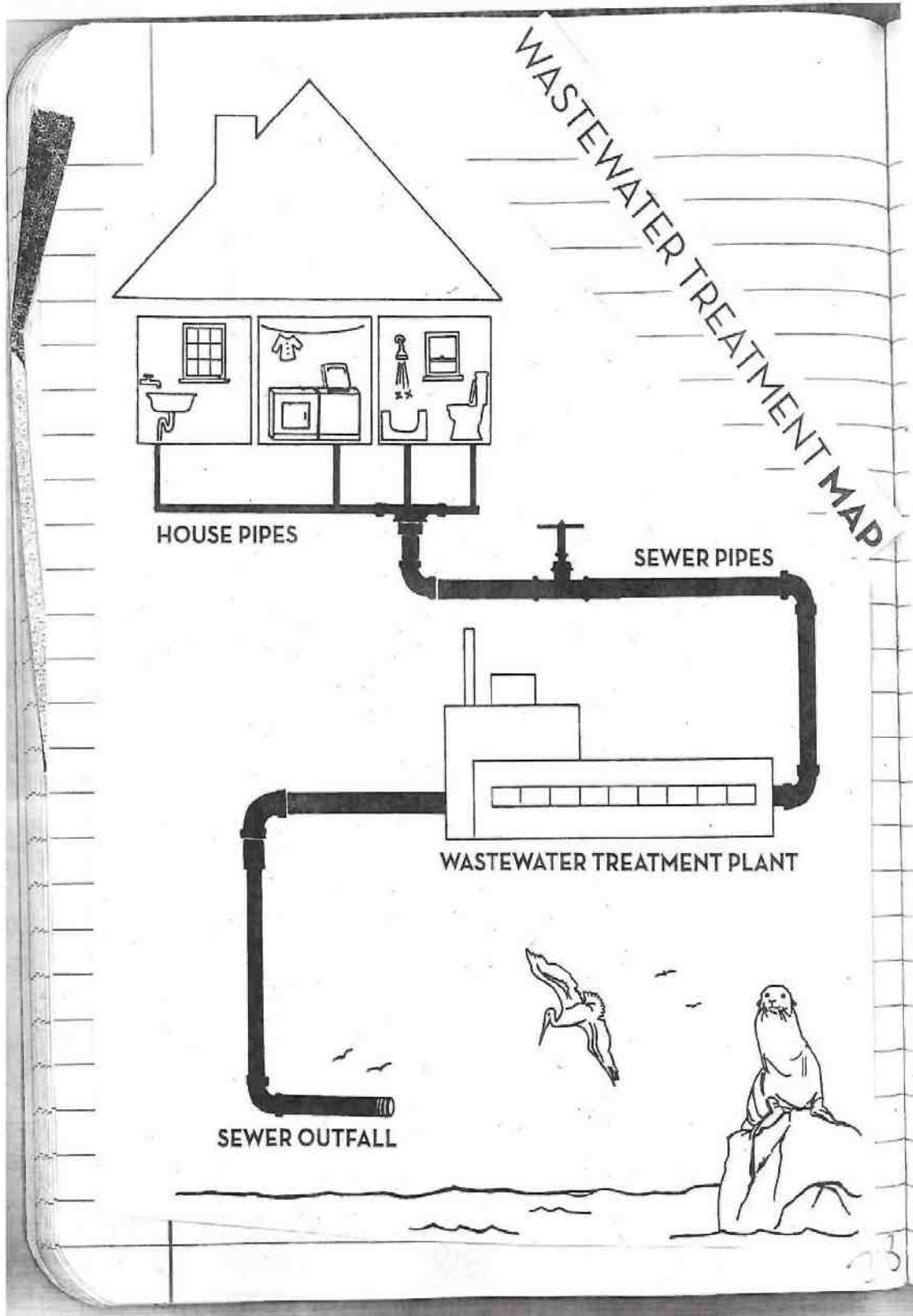
A - Porpoise
B - Dolphin

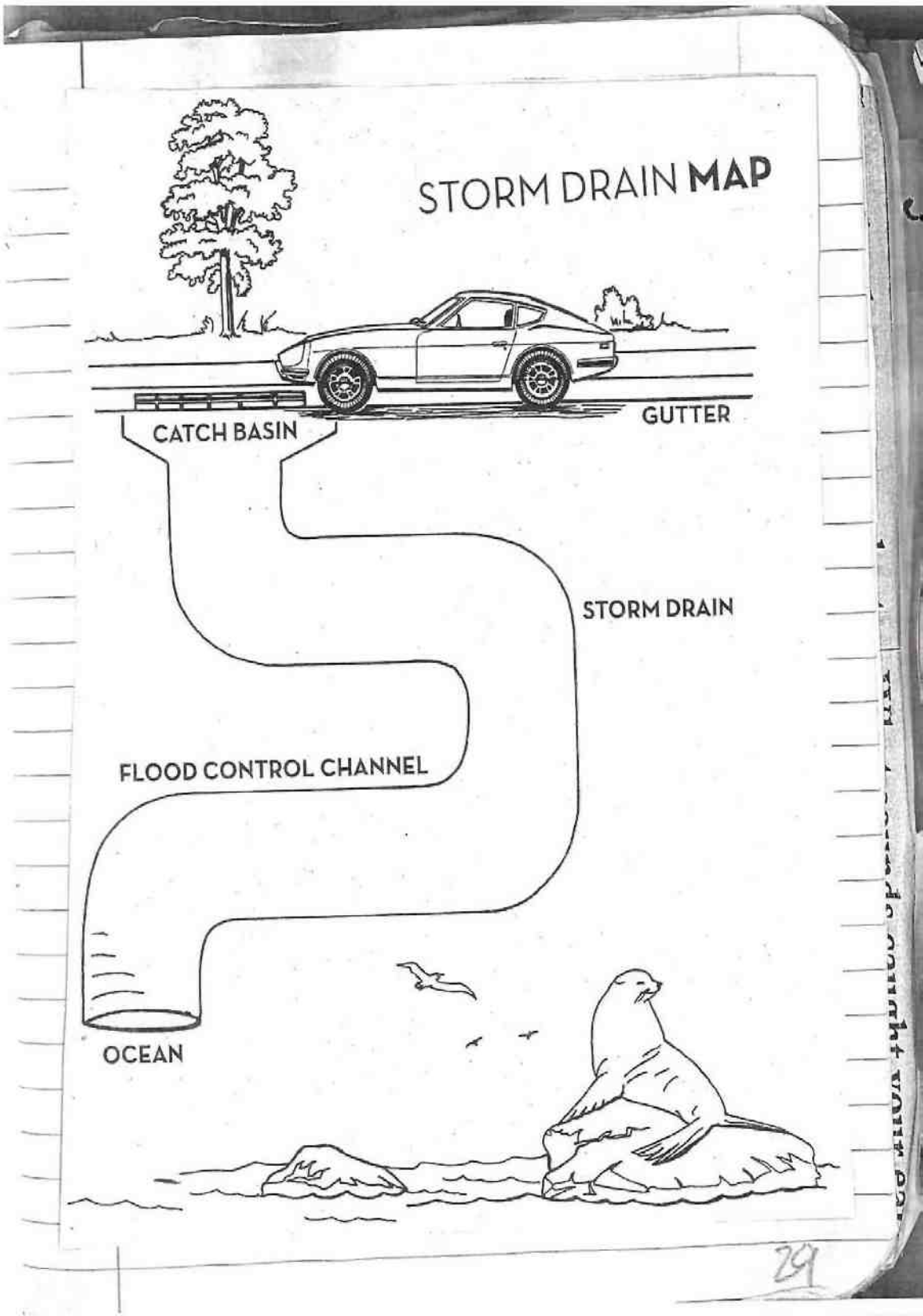
family: Delphinidae
DOLPHIN

Another notable difference:
social groups of porpoises are not as large or close-knit

The top sketch shows a porpoise with a blunt beak and a dorsal fin. The bottom sketch shows a spotted dolphin with a pointed beak and a larger dorsal fin. To the right, two teeth are shown: a spade-shaped flat tooth (A) and a cone-like pointed tooth (B).







R

What Did I See?

Cetaceans

- Whale
- Dolphin
- Porpoise

Pinnipeds

- Sea Lions
- Seals

Endemic Animals

- Xantus's Murrelet
- Ashy Storm Petrel
- Brown Pelican

Other Animals

- Seagulls
- Lizards
- _____
- _____
- _____

Plants

- Ice-plant
- _____
- _____
- _____

ICE PLANTS

This is what I know about ice plants.

They are invasive plants

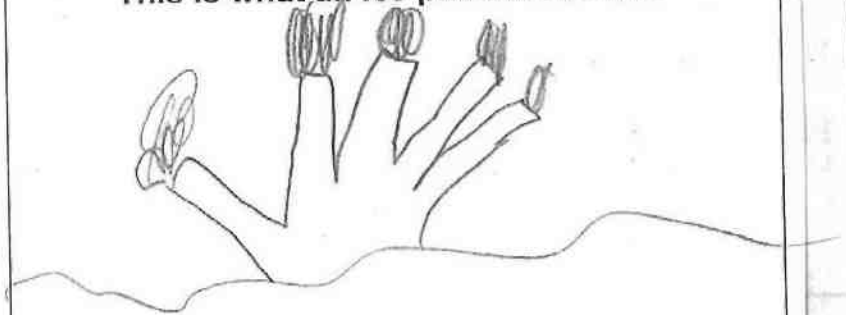
This is one thing I want to know about ice plants.

Why are they invasive?

This is one thing I learned about ice plants.

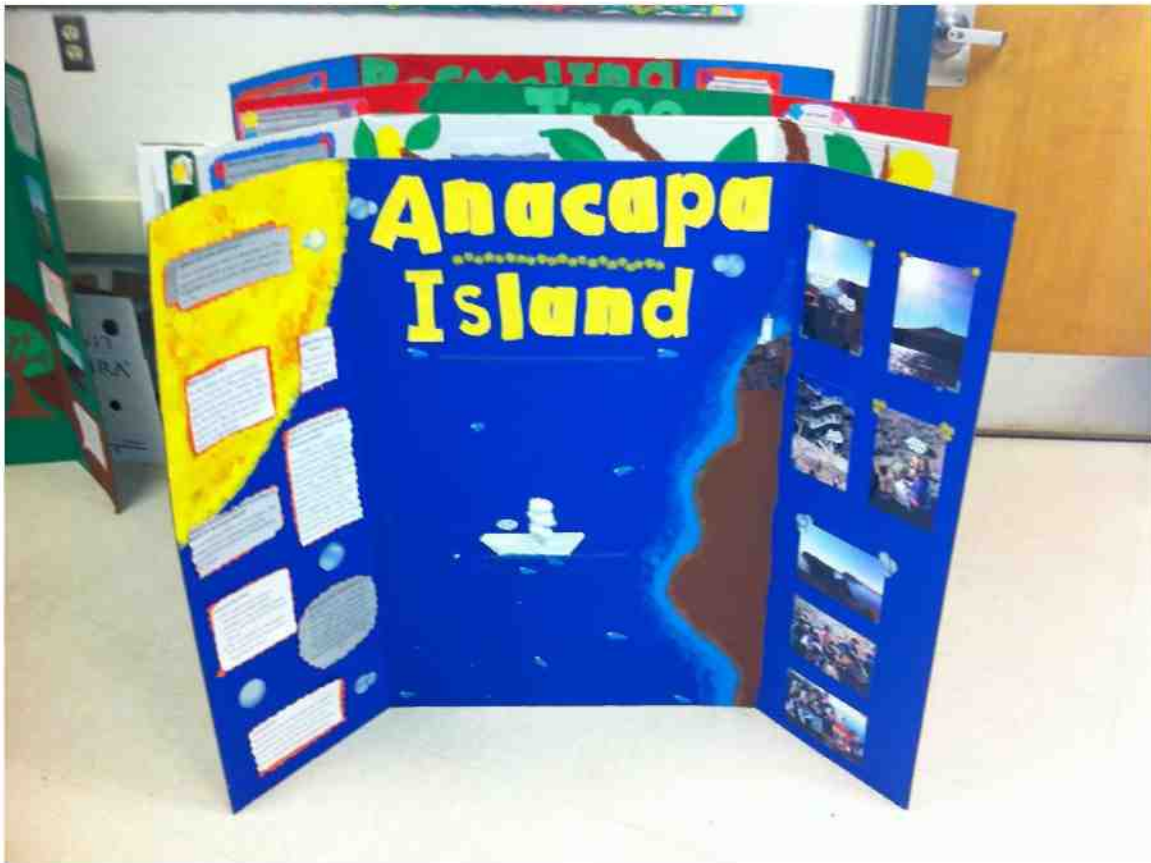
they are invasive

This is what an ice plant looks like.



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Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix B: Emma

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals and Progress

| IEP Goals | Baseline | Midline | Final |
|--|--|--|--|
| <u>Writing Goal:</u> Given grade level text, Emma will use knowledge of basic punctuation and capitalization when writing independently in each sentence as measured by work samples. | 50% each occurrence—making steady progress | 70% each occurrence—making great progress | 90% on each occurrence—accomplished goal |
| <u>Reading Goal:</u> Given a written/ verbal prompt, Emma will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 120 correct words per minute on a 2 nd grade reading passage with 80% correct for a trimester as measured by work samples. | 78 cwpm on a 1st grade text—making steady progress | 88 cwpm on a high 1st grade text—making great progress | 110 cwpm on a 2nd grade text—accomplished goal |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|-------------------------|----------------|---------------------------------|
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 4-6 hours | 1-3 hours | 4-6 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 1-3 hours | 4-6 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: Dance & Gymnastics | Yes: Tennis | Yes: Dance (indoors) and Tennis |
| How much time does your child spend having unstructured play? | 1-3 hours | 4-6 hours | 4-6 hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 1-3 hours | Yes: 1-3 hours | Yes: 1-3 hours |
| From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self- | 3 | 3 | 3 |

| | | | |
|--|---|--|--|
| esteem in general? | | | |
| What are your child's academic strength's and weaknesses? | Strengths: Art Weaknesses: Does not like reading | Strengths: Science Weaknesses: Reading | Strengths: Math Weaknesses: Reading |
| What are the child's social strengths and weaknesses? | Strengths: Helps others Weaknesses: Singing when not appropriate | Strengths: Very near, organized, perseverance Weaknesses: Does not always want to do what others want to do | Strengths: Wants to help others Weaknesses: gets silly, forgets to play with kids her age-would rather help out instead |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 2 | 2 | 4 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | She gets along well with groups and can be a leader or follower. | Plays with a group, is able to cooperate with others and is a leader. | Emma plays in groups, she cooperates well and is a leader. |
| Does your child primarily play with children their same age or different age? | Plays with all aged children | Same Age Children and Older Children | Younger Children and Older Children |
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | Emma loves school so much this year! | Emma has learned so much and has become our leader on hikes and outings and has retained so much knowledge. |

Final Parent Survey

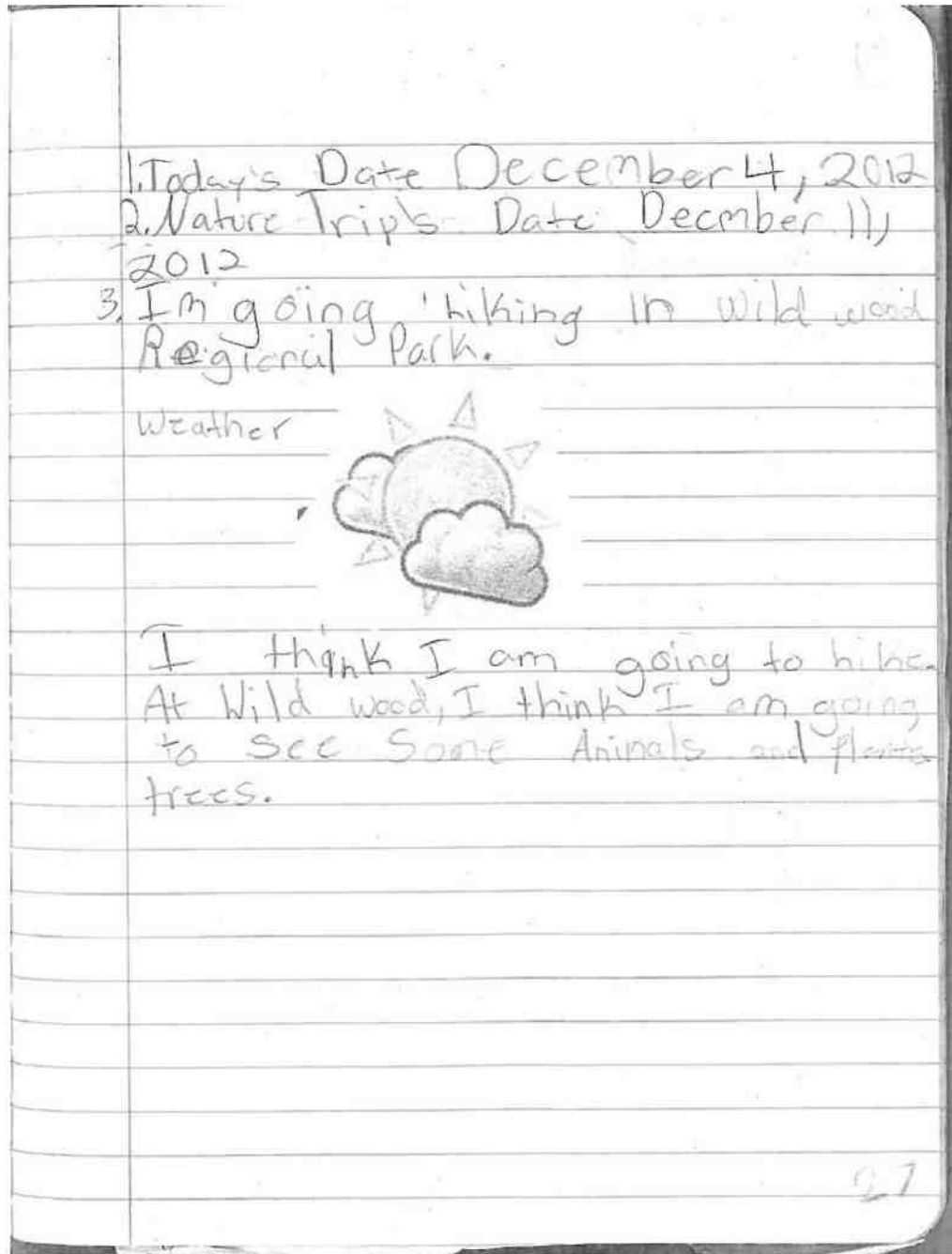
| Questions | Answers |
|---|--|
| How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/ behavior, and (3) academics? | <p>(1) Emma's self-esteem has improved tremendously because of how much she learned and gave her confidence to be more of a leader.</p> <p>(2) Emma's attitude has improved on keeping her calmer and more aware of her actions.</p> <p>(3) Emma's grades have improved and she reverts back to her outdoor experiences she learned.</p> |
| Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain. | When we go on family hikes. Emma leads us now and knows more than all of us put together. |
| Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain. | Yes she notices everything around her and will have more answers. |
| In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not. | We recycle more and want to do more family activities outdoors. |
| Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions? | Yes, I would love for Emma to continue this program. |

Teacher Questionnaire

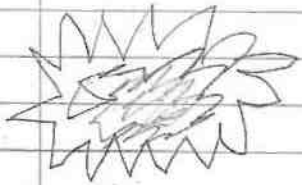
| Question | Baseline Answer | Midline Answer | Final Answer |
|--|---|--|---|
| What are the student's current grades? | Reading: B- Writing: Mathematics: B Science: A Social Studies: | Reading: B Writing: Mathematics: B Science: B- Social Studies: B+ | Reading: C+ Writing: B+ Mathematics: C+ Science: C Social Studies: A |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Modify • Clarify • Sits up in front | <ul style="list-style-type: none"> • Small group • Directions clarified • 1:1 instruction • Tests are dictated • Study guides | <ul style="list-style-type: none"> • Extra support • Clarification |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 4 | 5 | 4 |
| What are the student's academic strengths and weaknesses? | Strengths: Math Weaknesses: Reading and Comprehension | Strengths: Math Weaknesses: Reading Skills | Strengths: Math Weaknesses: Reading Comprehension and Written Organization |
| What are the student's social strengths and weaknesses? | Strengths: Very Social Weaknesses: Can be naughty and mouthy | Strengths: Friendly Weaknesses: Can be "Mean Girl" and gossipy | Strengths: Very outgoing Weaknesses: Too silly and seeks attention inappropriately |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate. | Emma can be chatty. | Yes, she can be chatty, boy crazy, constant reminders to stop talking | Yes, she is mature for her age with boy craziness and flirty. |
| From a scale from 1-5, 5 being | 4 | 2 | 3 |

| | | | |
|---|--|--|--|
| completely on task 100% of the time, what would you rate the student's on-task behavior? | | | |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 4 | 2 | 4 |
| How does the student interact with others in an academic setting? | She works better in a group, she is a follower and she is cooperative with others. | She works better alone, is the leader but can be bossy, and she is cooperative with others. | She works better in a group, but gets more done alone. She tries to take charge, but she enjoys bring with a group |
| How does the student interact with others in a social setting? | She plays in a group and is cooperative. | She plays with a group and can get frustrated with others and sometimes has a hard time getting along with others. | She plays in a group and is cooperative. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | No | No, she always has been a happy child. |

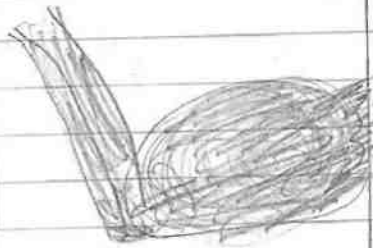
Nature Journal Samples

Wildwood Park

☺

| | |
|---|---|
| What animals and trees or plants did you see today? | What sounds caught your ear the flowing river |
| Sage Brush plant Willow tree birds, wood pecker | |
| Draw a plant you learned about label it. | What smells caught your nose? It smells like the Ocean. |
|  | |
| Dudleya | |
| 28 | |

Draw a picture of something you saw.
I saw a river.



What is one thing you learned about wild woods history?

the chumash Indians lived here. Volcanso.

1 kilometer =

0.6 miles

meter = 1.0936

yards meters

to yards =

multiply by 1.0936

Meters to miles

= multiply by 0.0006214

kilometer to

meters = multiply

by 1000

to miles = multiply

by 0.6

How far did we hike?

2.85 miles

Meters 4,586

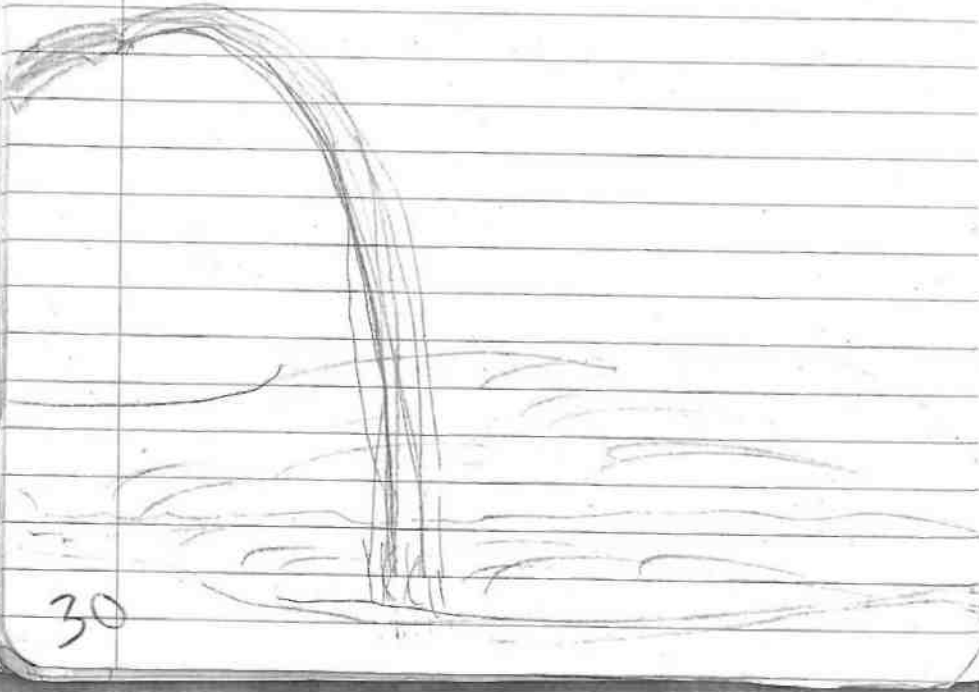
Yards 5,015

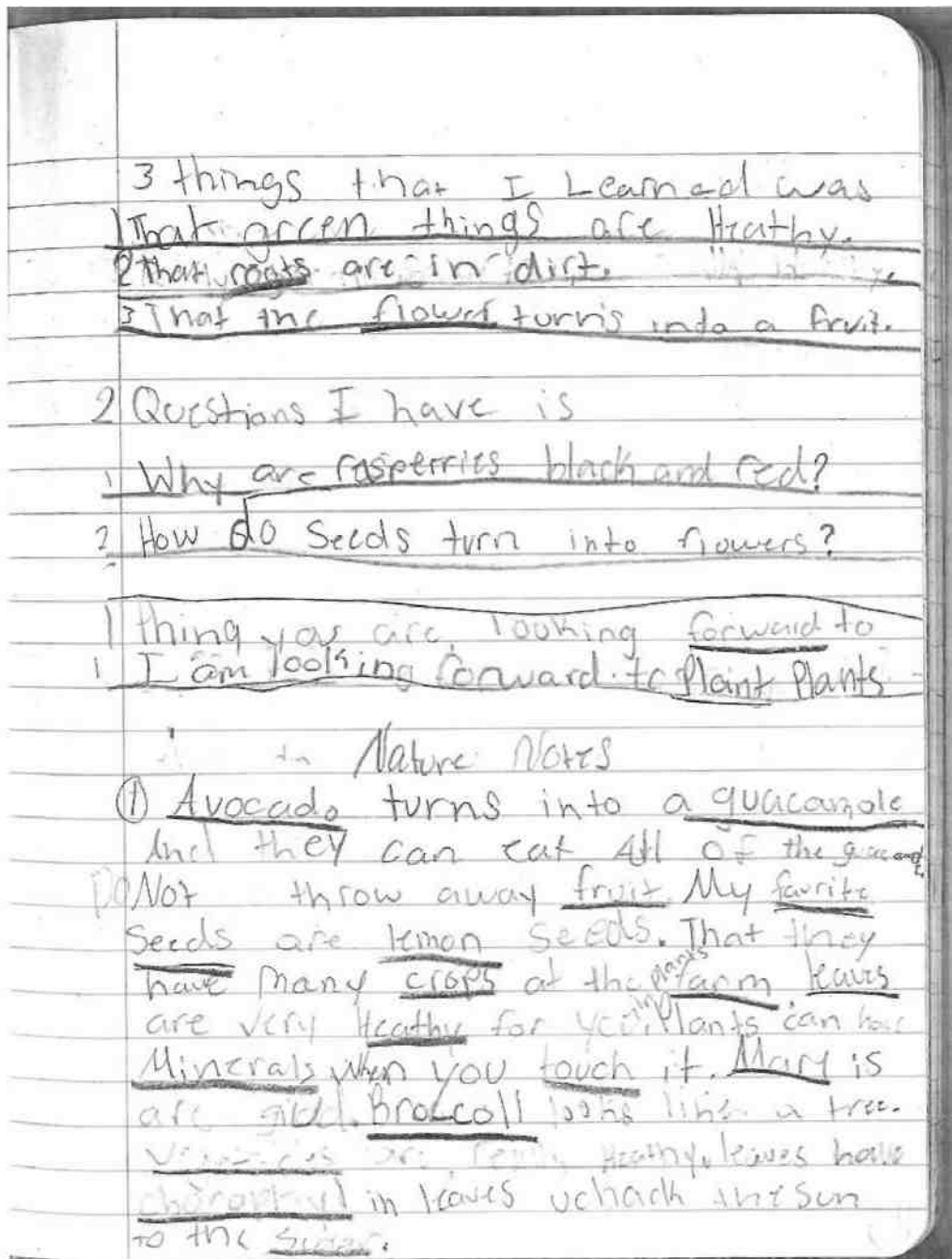
2.14 kilometers

4.75 miles

2.85

I went to Wildwood Park.
I went on a hike on some trails
through Wildwood Park. We saw a tree.
I saw a redwood tree. I saw a plant
called dodleya. I saw a bunch of
birds. My favorite part is finding the
arrowhead.



After Limoneira Presentation Write-Up

They ^{have} Carbon dioxide there too.
Mar is a great teacher Because
We are in common. YOU can plant
Straberries at your House too.
Limocira is in Ventura County.
Sustainability is there.

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|--|--|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix C: Lily

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Parent Interview**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goals | Baseline | Midline | Final |
|---|--|---|---|
| <u>Communication Goal:</u> In the classroom, Lily will use appropriate loudness level for various situations in 4 of 5 opportunities for 2 consecutive trials as measured by observation record. | Skill Recently Introduced | Accuracy 75% Consistency 4/5— Making great progress | 4/5 trials with 5/5 consistency— Attained goal |
| <u>Writing Goal:</u> Given a written assignment, Lily will create a multi-paragraph essay that develops a topic sentence and includes simple supporting facts and details as measured by work samples & observation record. | 1 paragraph independently— Making progress | 3+ paragraphs with prompting— Making great progress | 3+ paragraphs with prompting— Attained goal |
| <u>Reading Goal:</u> When reading a selection aloud, Lily will read aloud with a manner that sounds like natural speech (rate, smoothness, expression) at 135 correct words per minute on a 3 rd grade reading passage with 90% correct for 6 consecutive trials as measured by work samples. | 118 cwpm on 2nd grade text— Making good progress | 128 cwpm on a 3rd grade text— Making great progress | 130 cwpm with 95% of the passage, weekly—Making great progress |
| <u>Math Goal:</u> Given word problems, Lily will determine when to break a problem into smaller parts in 4 of 5 opportunities as measured by work samples & observation record. | 50% with help— Skill recently introduced | 60% with confirmation with adults— Making progress | 3 out of 5 with initial help—Making great progress |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|---|--|---|----------------------------------|
| Does your child have any allergies? | A little to milk and eggs, but nothing to worry about | Yes to dairy, soy, and eggs | Not anymore |
| Does your child have any physical limitations? | Her hypertonia tends to affect her ability to write a lot or in a timely manner. | No | No |
| How much time does your child watch TV per week? | 7-9 hours | 7-9 hours | 7-9 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: Soccer | Yes: Soccer, horse back riding, walking our dog, playing at the park, playing in the backyard, an occasional geocache excursion, tide pools in Cambria and hiking | Yes: Horseback riding and soccer |
| How much time does your child spend having unstructured play? | 7-9 hours | 10+ hours | 7-9 hours |
| Do you do any outdoor activities as a family? How | Yes: 1-3 hours | Yes: 1-3 hours | Yes: 1-3 hours |

| | | | |
|---|--|---|---|
| <p>much time do you spend doing this per week?</p> | | | |
| <p>From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self-esteem in general?</p> | <p>3</p> | <p>4</p> | <p>4</p> |
| <p>What are your child's academic strength's and weaknesses?</p> | <p>Strengths: Creative play, reading, sometimes math, good retention of facts she understands Weaknesses: Processing information, keeping up with the class, fear of doing something wrong, spelling</p> | <p>Strengths: Reading and music Weaknesses: Processing and responding to information, retaining information that she doesn't relate to (i.e. continents)</p> | <p>Strengths: Reading Weaknesses: Math and processing time</p> |
| <p>What are the child's social strengths and weaknesses?</p> | <p>Strengths: Easy going, friendly, creative, gets along with everyone. Weaknesses: Sometimes shy, sometimes afraid to stand up for herself.</p> | <p>Strengths: very creative in play and easy going Weaknesses: She is very hesitant to speak up if something bothers her with how she or someone else in being treated. Even though she realizes a particular friend isn't much of a friend, she has a hard time spending more time with different friends.</p> | <p>Strengths: Well liked, cooperative, friendly Weaknesses: is drawn to girls to tend to do or say mean things to her</p> |
| <p>When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate</p> | <p>It varies on the day. She is usually a 5 or 1. Completely focused and on task or like pulling teeth to get her to even stay seated.</p> | <p>4 We definitely have phases where she is a 1 or 2, but overall she does pretty well at staying focused and keeping to task.</p> | <p>3</p> |

| | | | |
|---|--|--|---|
| <p>your child's on-task behavior?</p> | | | |
| <p>How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower)</p> | <p>She prefers to play with a group, cooperative with others and she is a follower. She will make suggestions of things to do at play but won't push for it.</p> | <p>She prefers a group, although she definitely enjoys and needs her alone time at home. She is cooperative with others and primarily a follower.</p> | <p>She prefers to play in a group; she is cooperative and a follower.</p> |
| <p>Does your child primarily play with children their same age or different age?</p> | <p>Pretty much whoever is around to play with.</p> | <p>Same Age</p> | <p>Same Age</p> |
| <p>Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school?</p> | <p>N/A</p> | <p>She seems more comfortable with her role as a student and is much more willing to do new things in homework without the wall of fear and resistance I would often get before the year began. I would stat that her self-esteem has improved. She has always been a big fan of nature, which continues. I don't think she's as fearful in the classroom as she once was.</p> | <p>She seems a lot more comfortable, especially in Mrs. Aragon's class.</p> |

Final Parent Survey

| Questions | Answers |
|--|---|
| <p>How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/behavior, and (3) academics?</p> | <p>(1) Self-Esteem: Lily has always been afraid of going downhill when hiking. Having several opportunities to do this, although she was still anxious, definitely helped her self-esteem in working through her fear. I think the program made her comfortable enough to relax and be herself around the other kids in the group.</p> <p>(2) Attitude/ Behavior: (No Data)</p> <p>(3) Academics: There were noticeable differences when doing homework the day of and after a trip but know that I've seen long-term academic effects.</p> |
| <p>Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.</p> | <p>She pays more attention to the details of things she picks up while out in nature like rocks, shells and leaves.</p> |
| <p>Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain.</p> | <p>No, but she isn't really one to discuss reality topics and take the initiative to try to make changes based on what she's learned.</p> |
| <p>In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not.</p> | <p>We definitely make an effort to use reusable containers in the home and in lunches. Work harder to make sure items that can be recycled get placed in the recycle trash instead of the regular trash.</p> |
| | <p>I think the nature trips were wonderful. Even traveling to and from the destination in a small quiet car, as opposed to a large, loud bus, provided many opportunities for Lily to interact verbally with peers. I was impressed that Lily never complained about being tired. I think being trusted with her iTouch and having the opportunity to take photographs gave her a task of independence and responsibility. She had to face her fear of heights on a few occasions like hiking down steep areas, which boosted her self-confidence and</p> |

hopefully ease her fears a bit.

Discussing the trip ahead of time and preparing notebooks and questions seemed like a logical and successful approach. There was something about the freedom of being outdoors; getting exercise and learning about the world around them that couldn't be beat. At times the trips definitely helped Lily's creativity come out.

Lily isn't much of a talker about real things, so I didn't hear a lot about what she learned, but I know she soaks things up like a sponge and I am sure she learned a lot about recycling and sustainability. I believe her favorite part was the freedom to be herself she felt around her classmates and the bond she formed by sharing these experiences with them.

As a chaperone on these trips, I loved the attention and opportunity to talk and discuss things that the kids who do like to talk got. They had such great questions and an eagerness to learn and understand. There were many times when on a current trip they would mention an experience or learned information from a previous trip and tie it into what they were learning at the time. You could tell that even the tour guides were drawn to the kids' curiosity, knowledge and well thought out questions.

I would love for my daughter to participate in another similar experience. I love the idea of a new focus such as nutrition. The kids have different wonderful strengths. It would be fun to see the kids use them as a group collaborative project about the topic. For instance, some of the kids love to act and make up dialogue, some are great with fact retrieval, and some are artists. Find a way to bring the great talents together.

Parent Interview**1. *How do you define your role in Lily's educational career?***

- a. If Lily's educational career were a company, then I would see my husband and myself as the co-Presidents. My husband and I know the most about Lily and ultimately her attaining her full educational potential is our responsibility. However, it is also our responsibility to find "department heads" that have extensive and/ or specialized knowledge to teach Lily while we monitor her progress. It is our job to trust in her teachers and specialists and support them in any way possible. Although I see my husband and myself as co-presidents, I feel we are part of an equal team with the teachers and specialists and that it is important for us to work together to reach the best end result. It is our job to make sure Lily understands what she is learning at school and to enhance and expand upon those things whenever possible at home. It is important for us, my husband and I, to support Lily in her homework efforts and try as many approaches necessary to help her learn and understand anything she doesn't seem to be getting as well as seeking guidance and help from her teachers.

2. *How have using Environment-Based-Education and the natural outdoors helped Lily improve her self-esteem, attitude/ behavior, and academics?*

- a. Self-Esteem: I feel the "excursions" you have led have had an entirely different impact on Lily then when she goes on a normal school field trip.

I don't know if it is a long lasting effect, but on the days she comes home from these trips, her self-esteem has definitely been elevated. By the end of each "excursion" she seems freer and her inhibitions to interact with the other kids seem to be minimal. She has come home and told myself or others about things like how she and the other kids were recreating the play "Annie" at lunch time, how they were laughing at things at lunchtime and how much she enjoyed being on the boat with her friends, laughing and watching the dolphins. It isn't often that I hear her talking about something as a positive shared experience. She often experiences things with a group of people but always discusses it as although she was the only one there or brings up how others in the group somehow hindered her experience. It seems as though the boat trip is the first time I've actually heard her talk about something she enjoyed as a positive group experience. That she was happy she had her friends there to share this amazing thing, seeing dolphins swimming and playing along the boat.

- b. Attitude/ Behavior: How this seems to affect her attitude and behavior is interesting. The day of an excursion and the day after she is very productive and sits down to do her homework without issue. However, a few days after, she is actually more difficult than usual. I have a hard time getting her to come to the homework table and then to get her to stay focused. She is a pretty well behaved and positive kid, so beyond the above mentioned circumstances I haven't really seen a change, but there isn't much to change.

- c. Academics: I have noticed that these experiences have helped Lily finally tap into and access the creative part of her mind that I've always known was there, but always had trouble helping her use it when asked to for academic purposes. After the first trip, she was so excited about the idea of creating and running her own school someday, a thought that had never entered her mind. She still thinks about it (even though that was back in the beginning of school) and brought up something recently that she would do when she's grown up and runs her own school. The flow of thoughts and ideas that day was amazing. She usually gets hung up on one idea or experience and doesn't think beyond it. However, the day of that first excursion, when she came home and basically reenacted in our backyard what you guys had done earlier that day, it was like a dam to her creative free flowing thoughts finally had a hole in it. I've never heard her tell me so many different, detailed creative thoughts and ideas and she was so excited she just kept going and going. She did so much drawing that day as well without any inhibition, which is very unusual for her. I believe these experiences helped Lily with her moon journal. She wasn't resistant to doing different creative things, drawing or painting for the journal, like she has been in the past for a school project. She also seems a little less worried about making her art perfect and enjoyed and embraced learning to do collage art. Her class made thumb/ finger print turkeys for Thanksgiving. She made eight at school, which is a lot for her and leads me to believe she wasn't worried about it being perfect. Then she came

home and made a few more without worrying too much about how to do it or it being exactly the same as the ones she did at school.

3. *How have you contributed in supporting her in the Environment-Based-Education-Curriculum?*

- a. I think the biggest way I have supported her in this curriculum has been to give her freedom, time, and encouragement when she is feeling moved to somehow respond to, recreate or expand her experiences at school. When we go on walks I try to engage her in discussions and observations about what we are seeing. For instance, last week we were collecting leaves with fall colors and we help them up to the sunlight (like the guy at TreePeople had us do) to see how their color changed and how we could see more detail in the leave with the sunshine shining at it. We are also making sure her seed (from TreePeople) gets water and the right amount of sunlight. It has been fun to see how much it grows or changes each day.

4. *Specifically what have you noticed that has been the biggest change in Lily?*

- a. I think the biggest change I've noticed is that she seems more comfortable with her creative and artistic side. She used to break down and either cry or get frustrated when she would have to do any sort of drawing for a school project or homework, now she goes right into it with confidence. She still asks if what she has drawn is okay, but now it seems more like her being proud of what she has drawn and instead of saying, "Look what I did" she asks for approval instead. As I mentioned earlier, her ability to

string together sentences to describe or explain something and to think creatively have been a thrill to see emerge.

5. *Outside of school, have you noticed if Lily has had an increased awareness of nature? Please explain.*

- a. This question is hard to answer because she has always enjoyed nature. She has always been enamored with the creatures that live in our backyard like the many different birds, preying mantises, butterflies, moths, worms, roly-polies, etc. So she has always had an attraction and interest in the moving part of nature. She has also always enjoyed laying on a blanket in the backyard on summer nights, watching the stars and the planes at night. I think she may be more aware of the other parts of nature now but just doesn't talk about it. I think she is more aware of the circle of life and how what we do affects everything around us.

6. *Have you noticed an increased awareness of Lily's knowledge of sustainability?*

- a. She does make sure to use both sides of a piece of paper now and doesn't mind using paper that already has something on one side. She also will make comments about how something is bad for the Earth, like when she sees someone smoking. When we were in the parking lot at Sea World a few days ago, she saw a balloon flying away and said we needed to catch it because it was bad for the environment. I don't think she really gets the big picture of sustainability, but is starting to grasp the pieces to the big picture.

7. *In regards to how humans impact their local community, has Lily and/ or your family made any changes due to new knowledge gained during the Nature*

Trips? Please elaborate why or why not.

- a. I have invested in reusable snack and sandwich bags and snack containers so now I can usually get the girls lunches packed without anything going to the dump later. We already have separate trash and recycle trashcans in our home and I use reusable grocery bags. I've recently been trying to organize my kitchen and have been using shoeboxes and aluminum trays that I haven't been using to help in the process instead of going out and buying organized containers. I also belong to Freecycle and contribute items we are no longer using to it whenever possible. I think we are just trying to be less wasteful and better utilizing what we already have around the house.

8. *Final thoughts about the Nature Trips and/ or the Environment-Based-Education program that have not been covered.*

- a. I think the preparation in class leading up to the trip, the use of the journals during the trip and the length of the trip has been important factors in the success. Lily is always so concerned about what a new place that we are visiting is going to be like and then once we get to that new place she finds one thing that she enjoys or makes her feel comfortable and then latches on to that one thing or idea and doesn't care about anything else. By giving Lily an idea of what to expect on the upcoming excursions and to make her responsible for gathering information about a

variety of things for her journal, I think she was better able to move along with the flow of the tour. Lily always takes a long time to warm up to and feel comfortable in a new place, so to have a longer time for the excursions has definitely been beneficial for Lily. Having the small group one on one interaction on the tours has been amazing to watch. The kids come up with such amazing questions and thoughts and felt comfortable asking and sharing things they knew because they felt comfortable in their surroundings and with the tour guide, especially out amazing guy at TreePeople. If I had to summarize the program in one word, that word would be "Freeing". I think this approach to education has been tremendous for Lily. I look forward to seeing and experiencing the progress and positive surprises that still wait.

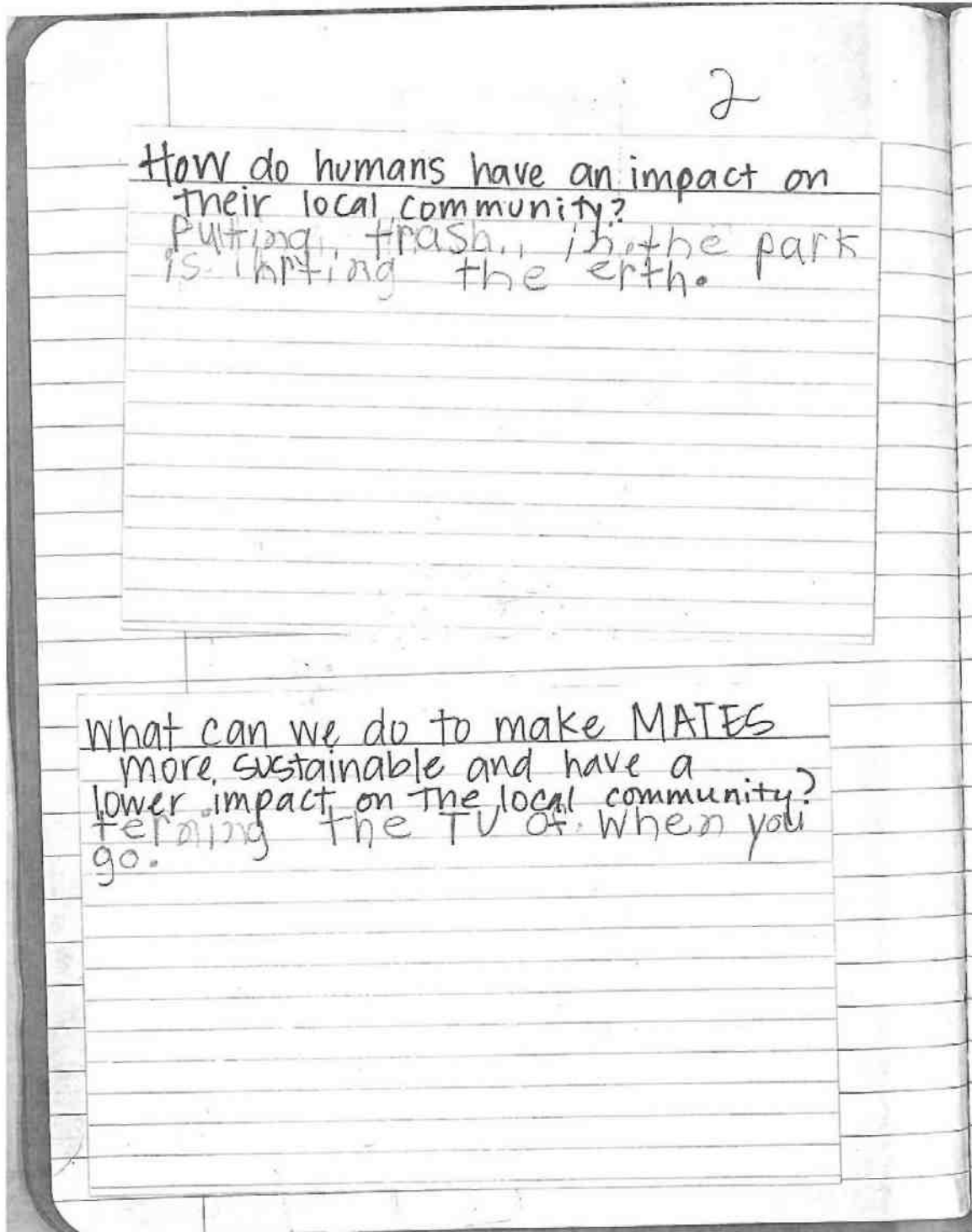
Teacher Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|---|--|---|---|
| What are the student's current grades? | Reading: Writing: Mathematics: Science: A Social Studies: | Reading: B+ Writing: Mathematics: Science: B+ Social Studies: B+ | Reading: Writing: Mathematics: Science: B+ Social Studies: A- |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Modify Work • Clarify Directions | <ul style="list-style-type: none"> • 1:1 • Small Group • Test Dictated | <ul style="list-style-type: none"> • One on one • Directions clarified • Encouragement |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 2 | 3 | 3 |
| What are the student's academic strengths and weaknesses? | Strengths: She reads well Weaknesses: Afraid to ask for help, processing information, and math | Strengths: Reading Weaknesses: Math facts | Strengths: Great reader Weaknesses: Not speaking up when needs help on assignments, math facts |
| What are the student's social strengths and weaknesses? | Strengths: Seems friendly with others Weaknesses: Shy, afraid to walk up to someone to ask for help | Strengths: Sweet and friendly Weaknesses: Shy in big groups | Strengths: Friendly Weaknesses: Shy, not an advocate for herself |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the | No | No | No |

| | | | |
|---|--|---|--|
| rules). Elaborate. | | | |
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 3: Slow | 5 | 3 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 4 | 4: Questions herself often | 3 |
| How does the student interact with others in an academic setting? | Works better with a group, usually a follower and is cooperative. She is shy and reserved. | It is hard to determine if Lily works better with a group or alone, but she benefits from both settings. She gets more done alone, but needs the social skills with a group. She is a follower and cooperative. | Works better alone or with one on one. She is primarily a follower and is cooperative with others. |
| How does the student interact with others in a social setting? | Plays with a group with encouragement and is cooperative. | She is hesitant, but participates playing with a group. | Plays with a group and she is cooperative. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | She has just grown all around. Gluten free diet, more comfortable with new school and new friends. | Yes! More outgoing! |

Nature Journal Samples

Conejo North Creek Park



2

How do humans have an impact on their local community?

Putting trash in the park is impacting the earth.

What can we do to make MATES more sustainable and have a lower impact on the local community?

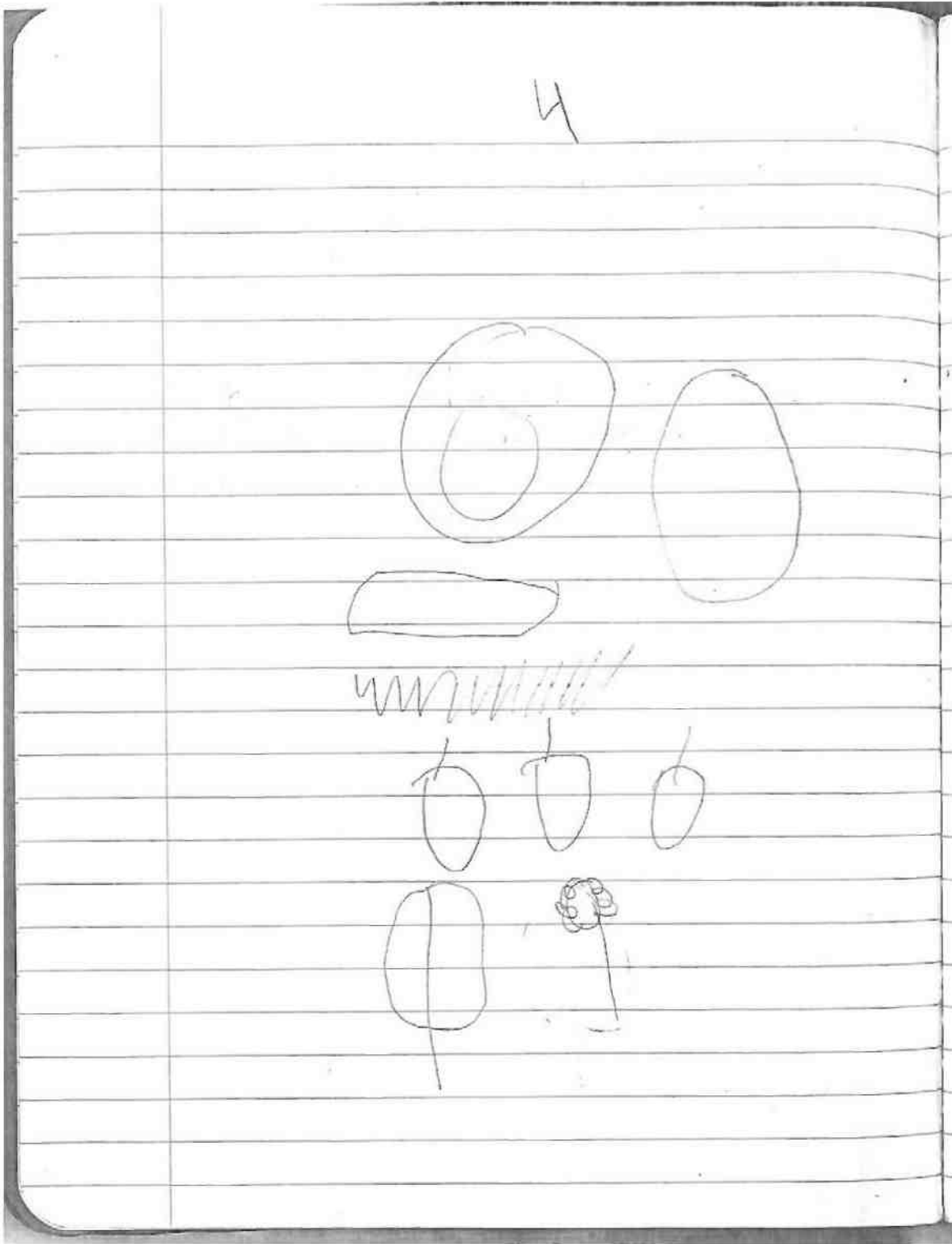
Turning the TV off when you go.

3

At mates I herd
brids, plans, dragentis.

I felt the sun I felt
the gass

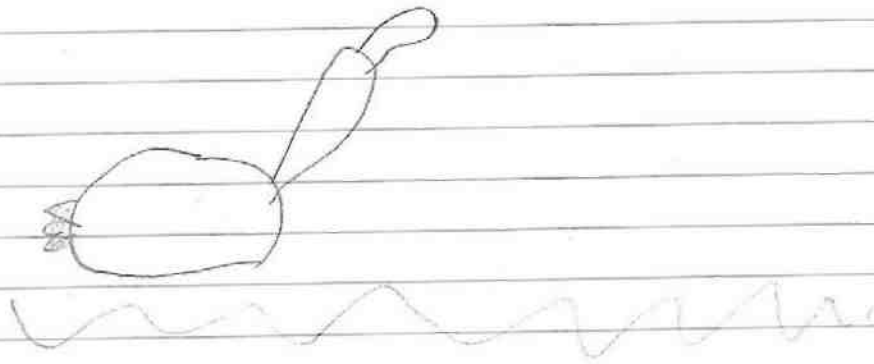




5

My favret thing I foud
is the flower.

I heard birds, ducs.
I felt the wind, gass.
I smell the pond.



6 Nature Journal Reflection
Yesterday I went to the
MATES field and the Corner
North Creek Park. One
thing I learned about
nature was birds make
nests in the park. One
thing I wish we could
have done more was read
a book. I learned that
megea has been to the
park.


Ramirez Mountain

Tomorrow, January 8, 2013 I am going to Ramirez Mountain.

30.

Prediction: I think I am going to see

~~a mocha and some~~
~~animals and some~~ pretty clouds
~~in the sky. The sky will be so~~
Pretty is that happens

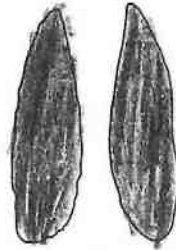
| | |
|---|---|
| Here is one fact I learned. | Here is one thing I did that I enjoyed. |
| Chumash got a dezer that killed some Chumash. | Seeing the old tree. |
| A question I asked was... | This is the answer to my question. |
| What is that yellow tree called? | Its called a grap froot tree. |
| Here is one thing I wish we got to do more. | Here is a drawing of something I really enjoyed or learned about. |
| I wish could hike more. |  Curing plant. |

5. Mule Deer



D

31



Front $3\frac{1}{4} \times 2\frac{1}{2}$



Hind $3 \times 2\frac{1}{2}$

F

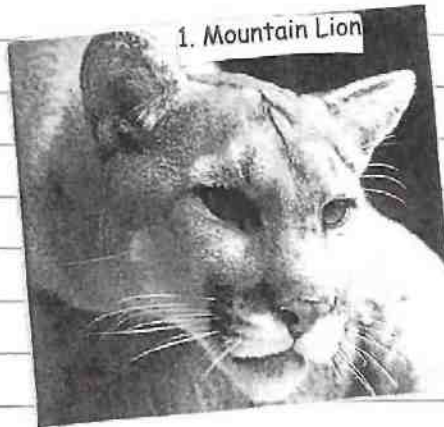


Front $3 \times 3\frac{1}{2}$



Hind 3×3

1. Mountain Lion



32

3. Striped Skunk



A



Front $1\frac{1}{2} \times 1\frac{1}{4}$



Hind $2 \times 1\frac{1}{2}$

B



Front $2\frac{1}{2} \times 2\frac{1}{2}$



Hind $4 \times 2\frac{1}{3}$

2. Raccoon



33

4. Opossum



C



Front $1\frac{1}{4} \times 2\frac{1}{4}$

E

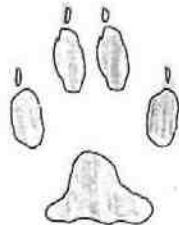


Front $2\frac{1}{2} \times 2\frac{1}{3}$



Hind $2\frac{1}{4} \times 2$

3. Coyote



Hind $2\frac{1}{4} \times 2$

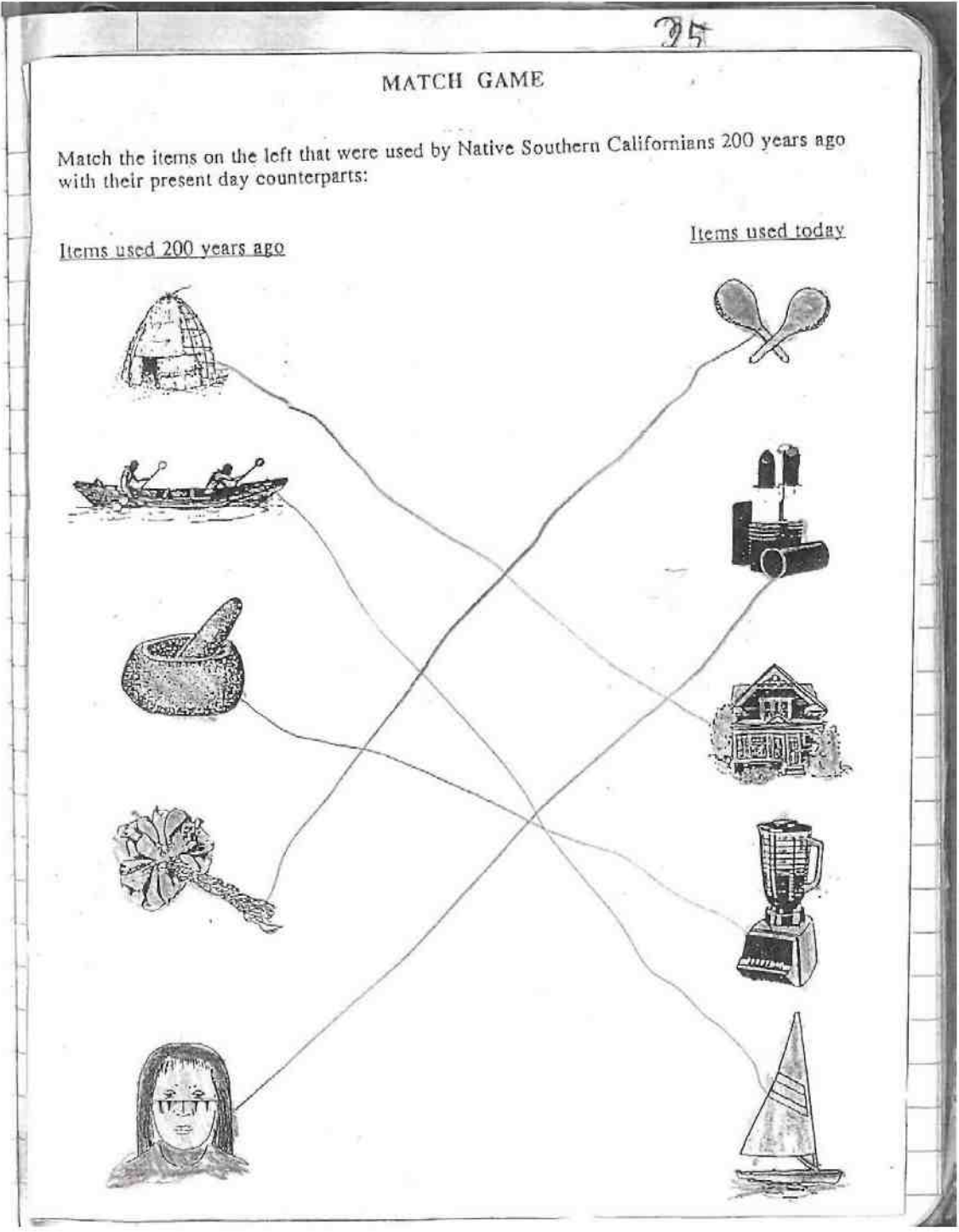
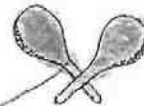
95

MATCH GAME

Match the items on the left that were used by Native Southern Californians 200 years ago with their present day counterparts:

Items used 200 years ago

Items used today



Limoneira

64

Today's Date: Monday, March 4, 2013
 Nature Trip's Date: Wednesday
 March 6, 2013

I am going to Limoneira on Wednesday
 March 6, 2013.

Weather:



Today I am wearing a winter
 coat and a short sleeve shirt, and a
 skirt and leggings.

At Limoneira, I think I am going to
 play and hike at the Limoneira.

At Limoneira, I think I am going
 to see a lizard and a leaf.

Gate: Use different boxes for each

Box A - Fancy (Best gate)

Box B - Choice (Shipped to other countries)

Box C - Standard (Lemonaid)

70

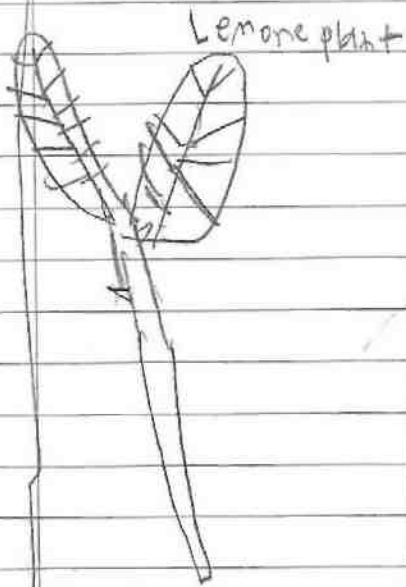
What animals,
trees, or plants
did you see today?

What sounds caught
your ear?
I heard loud.

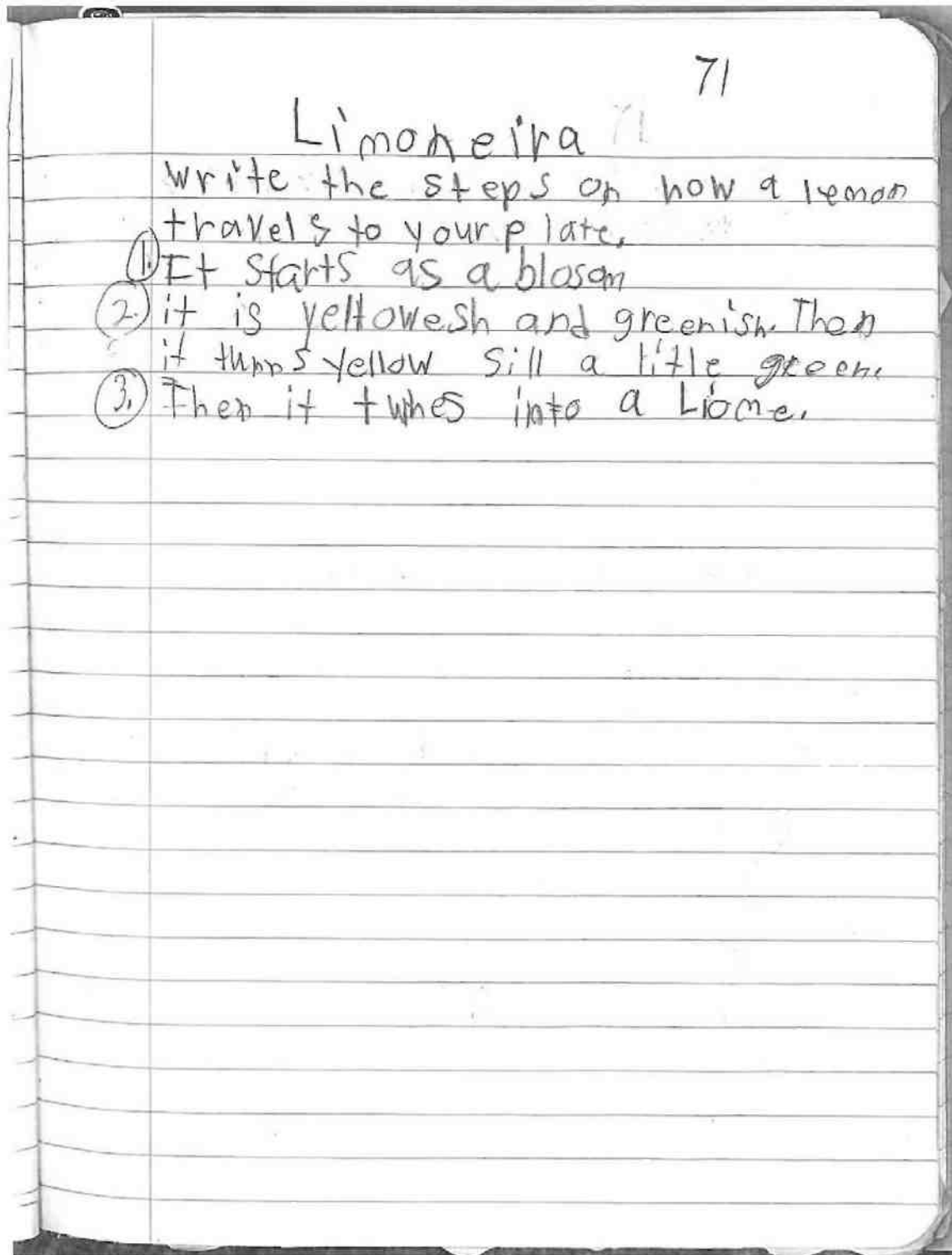
I saw sheep and
I saw a lemon plant

Draw a plant
you learned
about. Label it.

What smells
caught your
nose?



I smelled some
lemons.

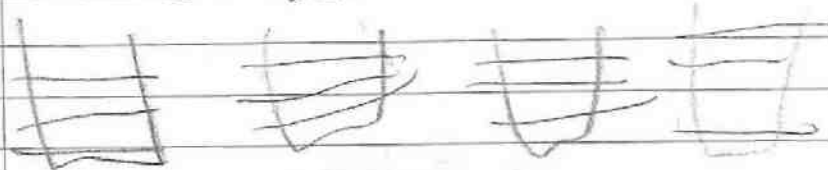
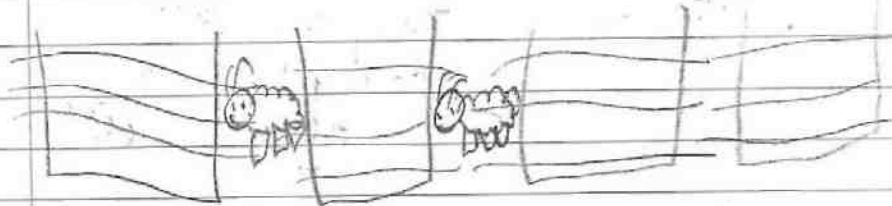
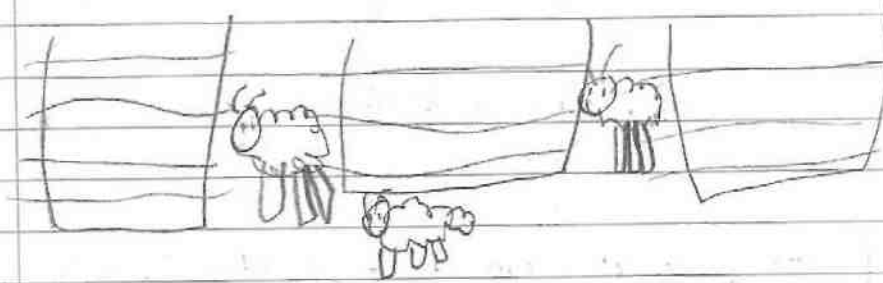


72

3.6.13 L'Imoneria Observations
Today's weather is partly cloudy



139,000,000 139,000,000

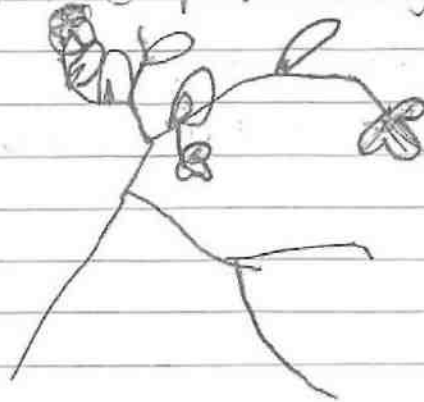


73

| Animals | trees | Plants |
|---|--|----------------------|
| <ul style="list-style-type: none"> • Sheep • fly • birds • ant • lizards • rabbit | <ul style="list-style-type: none"> - Lemon - Tangerine - Grapefruit - Orange | <p>Native plants</p> |

What sounds caught your ear?

- tractors
- "Boom boom"
- sounds of trains
- Laughter
- Buzzing
- Noises in the packing plant
- p"ZZZ



74

What Smells Caught Your nose?




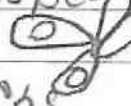
- water
- lemons
- radishes
- Sweet
- EXhaust
- Chlorine
- Soft Smell

Steps on how a lemon travels

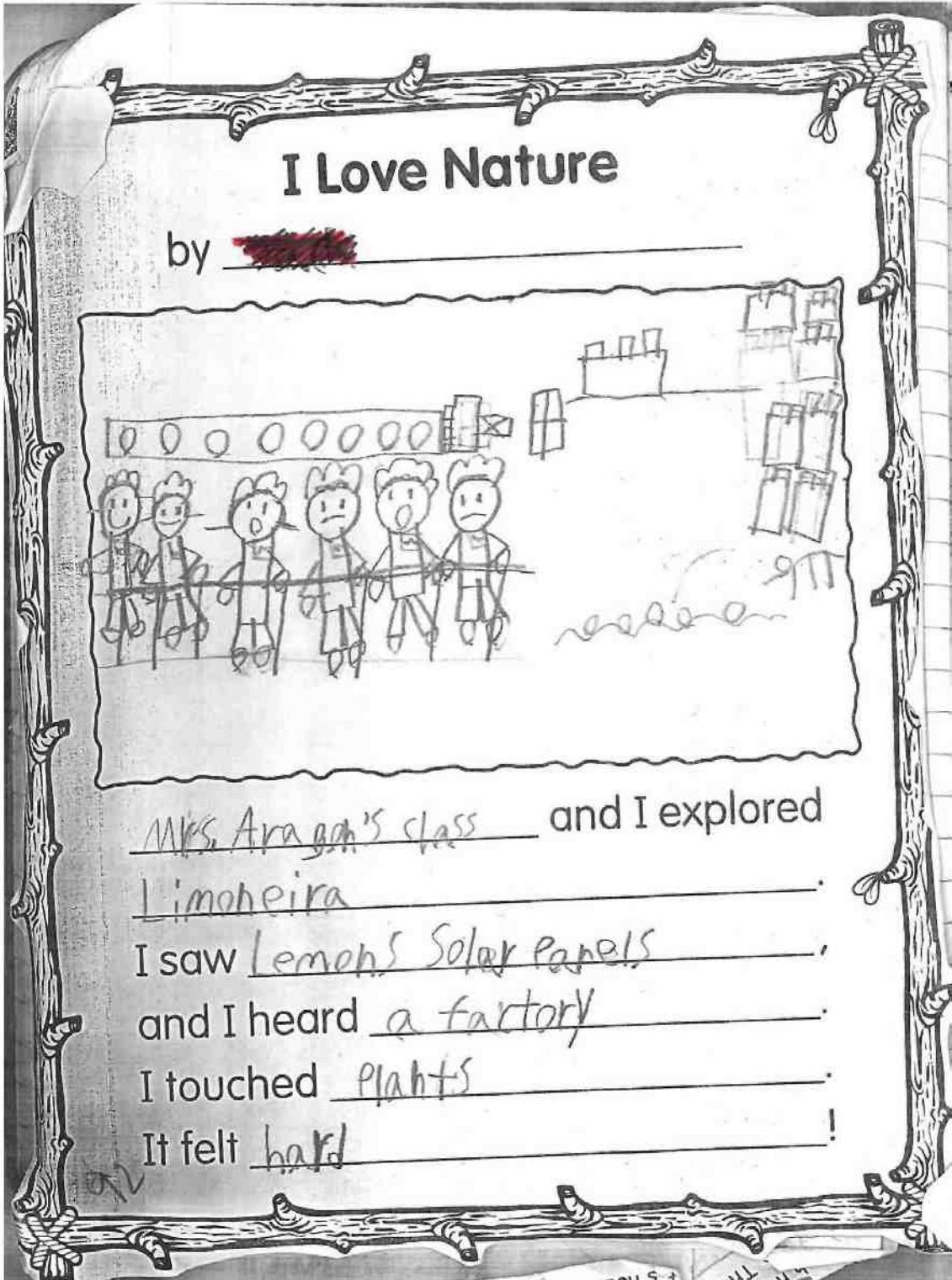
- ① seed
- ② bud
- ③ lemon blossom (1 week)
- ④ lemon (9 months)
- ⑤ harvests lemons
- ⑥ cleaning the lemon with chlorine
- ⑦ put a wax coat (shine and preser-
vative)
- ⑧ take a picture
- ⑨ sort it by color
- ⑩ Grade it
- ⑪ put it in a box
- ⑫ ship it

75

Tools Used to Harvest:

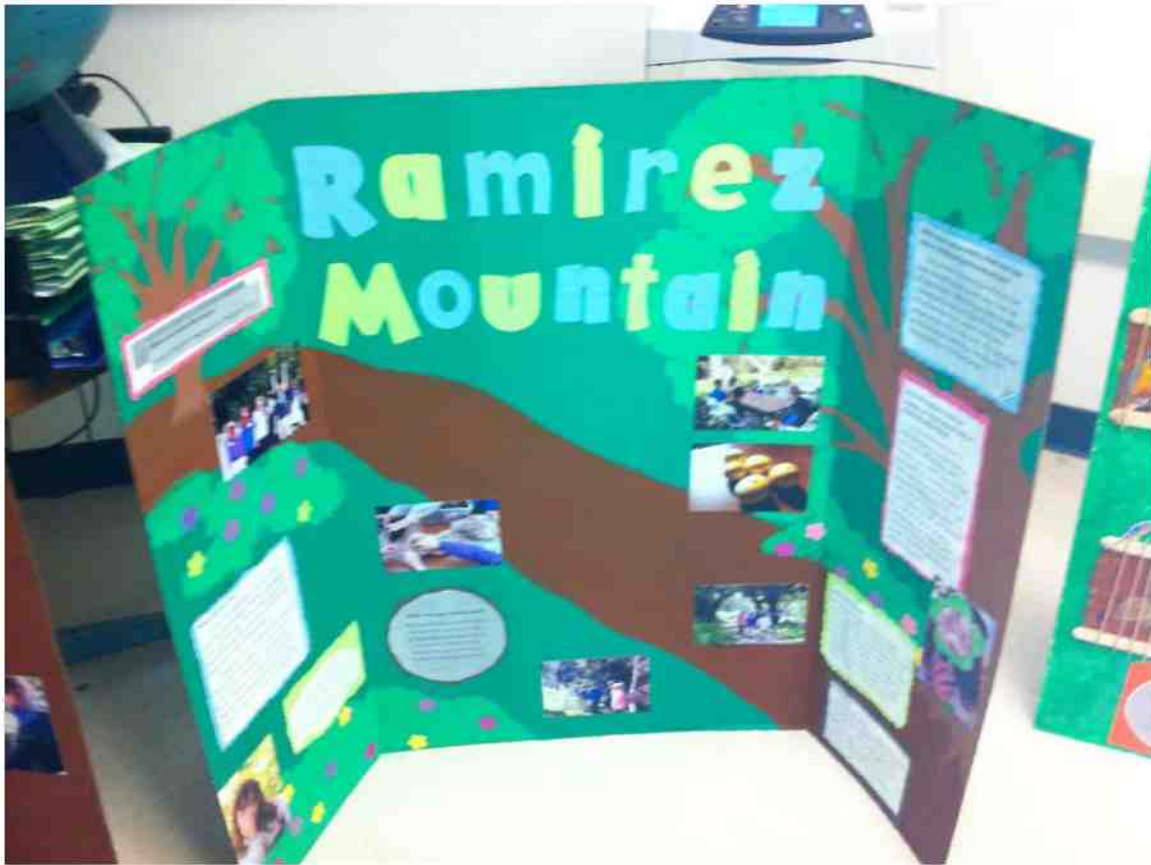
1. Ring - to measure 
2. Clippers - stems were clipped 
3. Bag - lemon (50 lbs) 
4. Gloves - safety from thorns 

- Limoneira has 300 acres of lemons.
- Produces 130,000,000 lbs of citrus
- Limoneira is being sustainable by using solar panels for energy instead of burning natural gas.
- Natural gas puts carbon dioxide into the air.
- Limoneira is also being sustainable by planting native plants on their roof. The native plants help clean our air by turning carbon dioxide into oxygen.



Mrs. Aragon's class and I explored
Limoeira.
I saw Lemons Solar Panels,
and I heard a factory.
I touched plants.
It felt hard.

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix D: Alex

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goals | Baseline | Midline | Final |
|--|---|---|--|
| <u>Communication Goal:</u> In the classroom and speech room, Alex will formulate grammatically correct sentences overall when speaking and writing with 80% correct without prompts for 4 out of 5 opportunities as measured by observation record. | New Goal—Skill recently introduced | 60% accuracy, 3/5 consistency— Making progress. We are working on identifying when something doesn't sound right. | 80% accuracy with 4/5 opportunities— Attained Goal. |
| <u>Communication Goal:</u> In the speech room and in the classroom, Alex will take turns and pay attention to nonverbal cues given by the listener in a speaking situation with 80% correct for 4 out of 5 opportunities without prompts as measured by observation record. | New Goal—Skill recently introduced | 65% accuracy, 4/5 consistency— Making progress. Needs some adult prompting. | 80% accuracy with 4 out 5 opportunities— Attained Goal. |
| <u>Communication Goal:</u> In the speech room and classroom, Alex will tell a story including 3 simple details with grammatically correct sentences with 80% correct for 4 out of 5 without prompts as measured by observation record. | New Goal—Skill still recently introduced | 55% accuracy, 3/5 consistency— Making progress. We are working on short, concise summaries. Needs adult prompting. | 85% accuracy with 4/5 opportunities— Attained Goal. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Alex will create a single paragraph that develops a topic sentence and includes simple supporting facts and details independently for a trimester as measured by work samples and observation record. | New Goal—Skill recently introduced | 1 paragraph 75% independently but still requires some help, per trimester— | 1 paragraph independently for a trimester— Attained Goal. |

| | | | |
|---|---|--|--|
| | | Making great progress. | |
| <i>Reading Goal:</i> When reading a selection aloud, Alex will distinguish the main idea and some supporting details in the passage with 85% correct for a trimester as measured by work samples & observation record. | New Goal—Skill recently introduced | 60% accuracy per trimester— Making good progress. | 90% correct per trimester— Attained Goal. |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|---|---|------------------------------------|----------------|
| Does your child have any allergies? | Gluten, dairy, soy, eggs, and rice | Gluten, dairy, soy, eggs, and rice | Gluten |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 4-6 hours | 7-9 hours | 4-6 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 4-6 hours | 4-6 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: Swimming everyday, Scooter/ bike with next door neighbors, jumping on big jumpy daily | No | No |
| How much time does your child spend having unstructured play? | 7-9 hours (A lot. We encourage our kids to build, create, imagine, and play most of the day whether its outside, inside, Legos or play house, etc.) | 10+ hours | 7-9 hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 4-6 hours (hiking, going to the beach, and playing in our pool—we made our backyard like a playground) | Yes: 4-6 hours | Yes: 7-9 hours |

| | | | |
|--|---|---|---|
| <p>From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self-esteem in general?</p> | <p>3: Adores making new friends and will walk up to anybody to play and I think he is just getting his strength under his wings.</p> | <p>4</p> | <p>4</p> |
| <p>What are your child's academic strength's and weaknesses?</p> | <p>Strengths: Math & Science Weaknesses: Reading & Writing</p> | <p>Strengths: Math, Science Weaknesses: Reading comprehension and paragraph writing (But, So much better!)</p> | <p>Strengths: Math, Science, memorizing quickly Weaknesses: paragraph writing, reading, some math facts</p> |
| <p>What are the child's social strengths and weaknesses?</p> | <p>Strengths: Very kind, caring, takes good care of friends, loves to make friends Weaknesses: Can get upset easily when things in games seem unfair.</p> | <p>Strengths: Very social, open, friendly, kind Weaknesses: Gets hurt easily at times or may not understand some social cues.</p> | <p>Strengths: makes friends easily, very kind and caring Weaknesses: doesn't like to be outside sometimes as long as his friends do.</p> |
| <p>When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior?</p> | <p>1 (maybe a 2 if I stay on him constantly)</p> | <p>2</p> | <p>4</p> |
| <p>How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower)</p> | <p>He interacts best in a group, cooperative with others; but gets frustrated when no adult or coach is there during a game and things become unfair. He enjoys leading, but will follow as well.</p> | <p>He interacts best in a group, cooperative with others and is primarily a follower.</p> | <p>In a group and then enjoys quiet alone time after playing. He is very cooperative but will get frustrated when rules aren't followed or being ordered around by a friend. He is a good leader and follower, but depends on what he is doing.</p> |

| Does your child primarily play with children their same age or different age? | Same Age | Same Age | Same Age |
|--|----------|--|---|
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | Oh yes! He asks so many more questions about things around him and seems to really “see” the world around him. Before it felt like he would just walk through like without noticing the world around him-now he wants to take pictures of flowers, lizards, cool bugs and even spiders, which he was really scared of. He seems a lot less scared of bugs and insects. He said school doesn’t seem “too fast” for him anymore and I feel he is able to concentrate much longer which naturally leads him to understanding and comprehending more which then leads to his confidence level—which compared to last year has risen 100%. He is very happy this year, which for a mommy there are no words to express how calm | Definitely! Alex seems much more focused, alert, and detailed than earlier this year. He knows and remembers so much from his nature trips and has a much broader appreciation for the outdoors than ever before. He used to make such a big deal and freak out over bugs. Now, he’ll sit and watch them and observe what’s going on. This, I believe, has taught him to slow down, listen, focus, and add more detail when writing in school than ever before. This is something only learned from being actively in it—touching, seeing, hearing, and exploring the outdoors. These are things that can be taught from a book. Awesome program and blessed to be apart of it. |

| | | | |
|--|--|------------------------------|--|
| | | that makes my heart feel. | |
|--|--|------------------------------|--|

Final Parent Survey

| Questions | Answers |
|---|--|
| <p>How did Environment-Based-Education and the natural outdoors helped improve your child’s (1) self-esteem, (2) attitude/behavior, and (3) academics?</p> | <p>I feel Alex’s confidence and overall ability to “handle” things that may be challenging or difficult has grown a ton. Last year every day was negative, a challenge, and an upset cry fest. This year, maybe a handful. He feels confident in many more ways and capable of completing assignments that he would have crumbled before. 2nd grade pushed him and 3rd grade is far more difficult and he is handling it so much more than we thought he could. He will definitely buck when things get tough or he has to spend more time on something, but far less than last year and moves past it much more quickly. Alex loves resource and the acceptance he feels there and the safety to be himself...he doesn’t look around and feel less than, in resource he feels like an equal and “ok” when things are hard to understand. So much of all the outdoor experience has help with this because all the kids connect, look out for each other and help each other on these nature trips. This has also totally given confidence, better self-esteem, and attitude! His grades this year were all A’s and B’s- Amazing Year!</p> |
| <p>Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.</p> | <p>I/ we have. Alex has always loved the outdoors as long as there were no bugs around. He would run when anything small buzzed by him and crawly things would freak him out enough to back inside. Now, unless it’s a bee, he watches to see what they are doing, will explore off the hiking trail when we go, notices different plants and I see a real peaceful look on his face. Another big thing has been his wanting to take much more responsibility with out dog and guinea pig-feeding them, making sure they have water, picking up after them, etc. He enjoys spending time more outdoors</p> |

| | |
|--|---|
| | <p>and even educates us on the places he has been, the people that lived there, what they did to survive and how things grow. We enjoy as a family hiking, swimming, and the outdoors and after this year it's even more enjoyable because Alex does too and has more patience with the outdoors, which can be very unpredictable at times. He has more stamina, much less whining and complaining and observes so much more.</p> |
| <p>Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain.</p> | <p>Absolutely! He never knew exactly and fully why we recycled or turned off the lights or computers or bought from the farmers market, but he sure does now! And he totally gets the importance and why! We have always said that we need/ want to raise our kids in 2013 with all the technology and amazing electronics, but somehow have a 1970's mentality as well. This is really hard with all that goes on in their daily lives, but this program has incorporated it in with their learning which gives them the appreciation to slow down and take care of their Earth whole playing on the Ipad. He totally understand that if we don't take care of our plants, forests, and Earth then there will be nothing or less than for the next generation. He actually said, "Mom, we need to take care of our Earth and make sure we recycle and water our plants because when I have kids I want them to see all the beautiful things like I get to." Awesome! Every child should have the privilege to be educated in this way at school—we have gone so far to the other end that our kids have lost the love of imagination and outdoors and it is up to us to bring this back and actually teach this. What an awesome program on so many levels this has been for Alex —and us parents as well.</p> |
| <p>In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please</p> | <p>You know we have always recycled, been globally aware, raised our kids to love the things around them—trees, plants, animals, etc. and to respect it all, let them know they were a part of a bigger picture and to be</p> |

| | |
|--|---|
| <p>elaborate why or why not.</p> | <p>aware of how much they have, compared to those in different countries and different situations. This year, being in resource with Mrs Aragon, has allowed our family to expand on all these important things not only with Alex, but with all our kids. They are realizing they are not just a kid, but also a part of so much more. So when they recycle, or turn off the lights they are helping the Earth and helping the community. They picked up trash on the way to school and felt proud because they knew they were helping. It's these small things that expand into bigger things that help not only the community but also everyone and it starts with just a simple action. But unless this type of thinking and love is taught, kids will most likely pass right over it, not even realizing what the ripple effect is.</p> |
| <p>Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions?</p> | <p>We are completely all for it next year. This year Alex has grown so much because of this program-its unbelievable. Before he felt he was just going to school like a robot—now we believe he has learned to be apart (more) in his environment whatever that may be. He hates loud, crazy and out of control and yet he deals, as best he can, at school during these times (recess, lunch, etc.). We totally believe between home and resource (being nature based) Alex has learned to handle things better, communicate his needs and wants better and therefore become more comfortable in his environment. He is 100% a totally different child since last year, and much of his growth came from the comfort, the love, the acceptance and the teachings of this program. He feels accepted and at peace with his peers which allows him to let go and let more in. This is where the nature-environment plays a key role because at least with my son Alex, he's more comfortable inside in a controlled environment, but life is not controllable. Learning to accept the uncontrollable and</p> |

| | |
|--|---|
| | <p>understand the outdoors and world around him has allowed him to accept/ or tolerate the unexpected and appreciate the small things—like the butterfly that just came out of his cocoon last weekend.</p> |
|--|---|

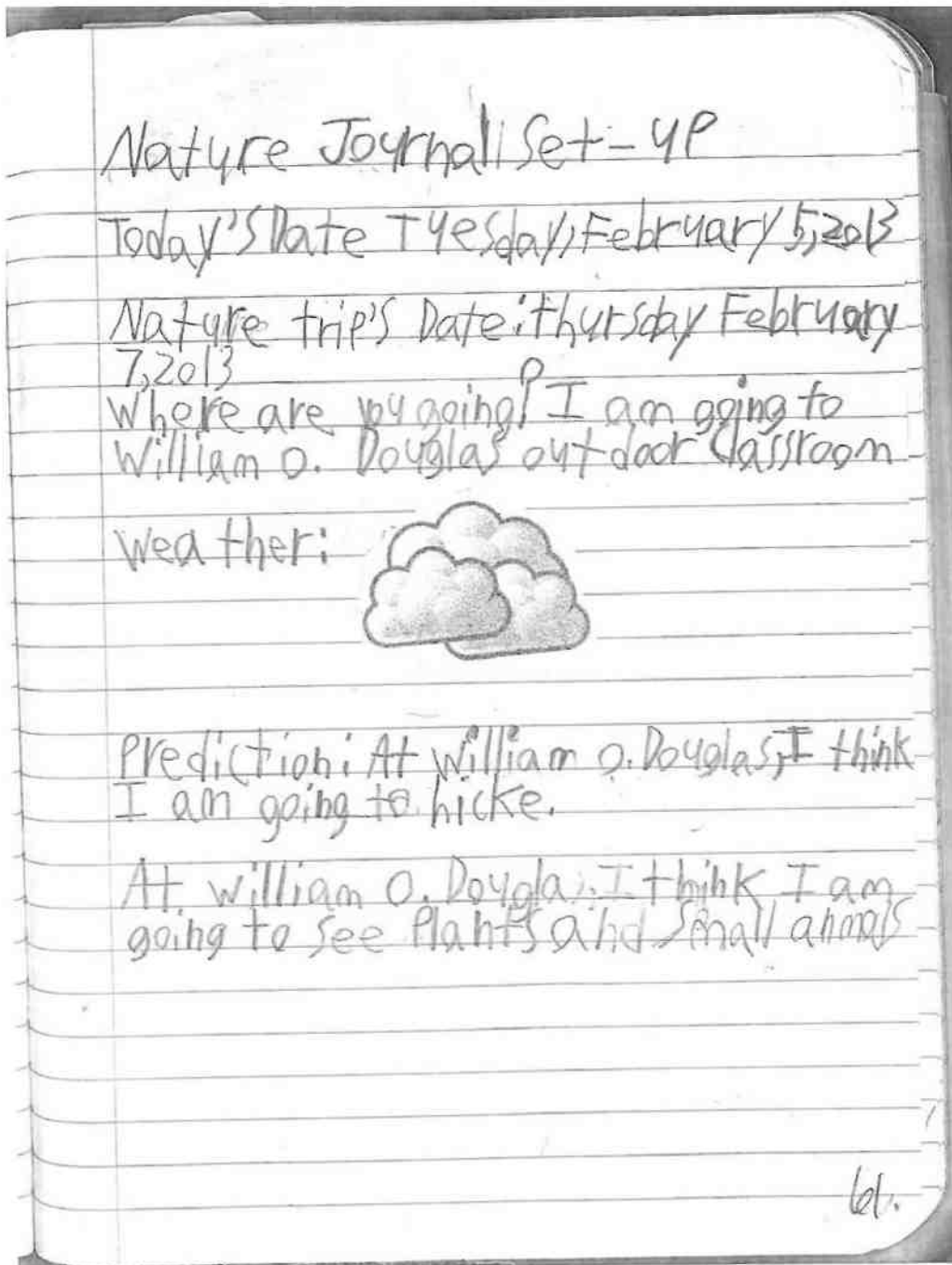
Teacher Questionnaire

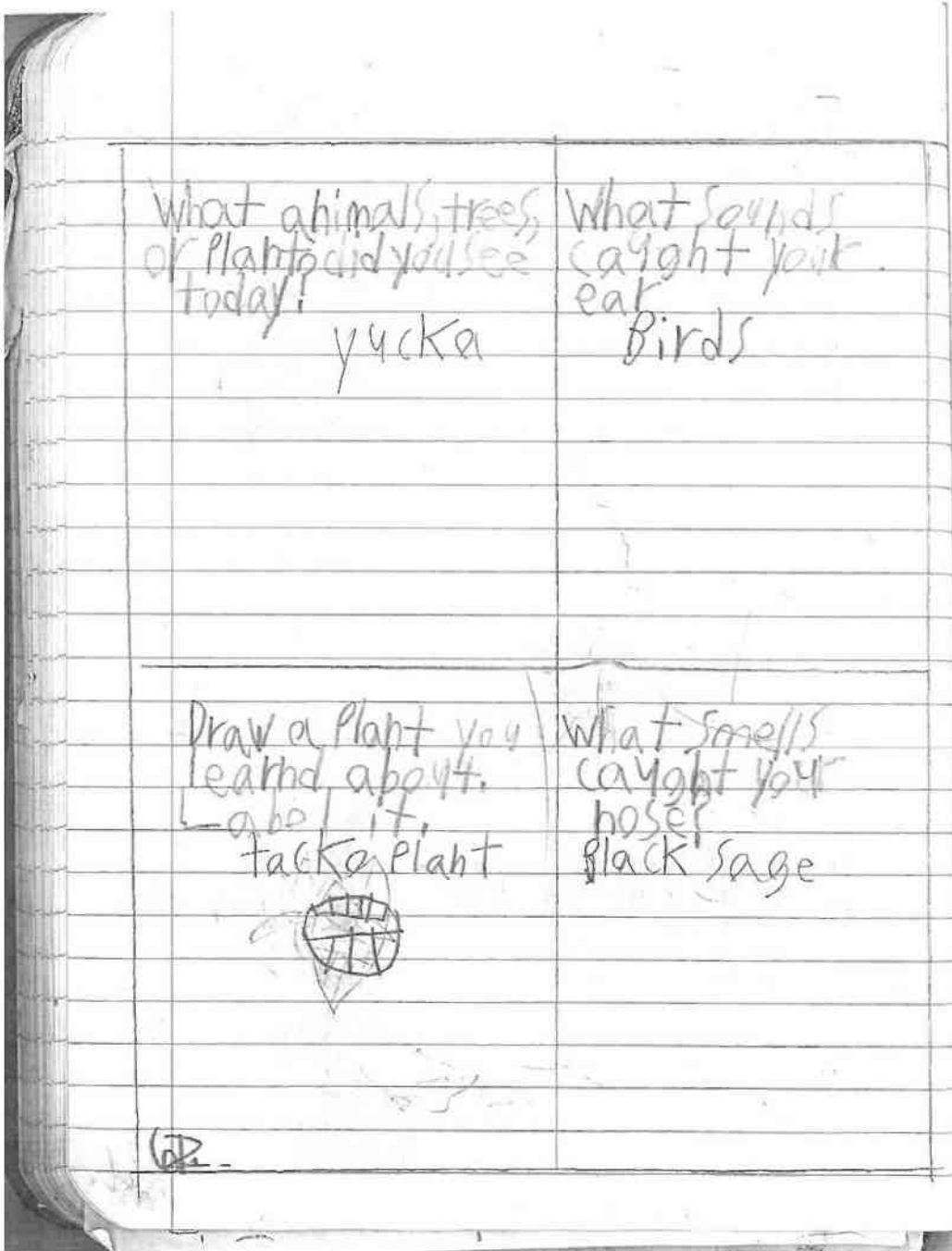
| Question | Baseline Answer | Midline Answer | Final Answer |
|--|--|---|--|
| What are the student's current grades? | Reading: B- Writing: Mathematics: C+ Science: A Social Studies: | Reading: A- Writing: Mathematics: B Science: B+ Social Studies: B | Reading: Writing: Mathematics: B- Science: B+ Social Studies: A- |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Modify Work • Clarify • Sit in front of room | <ul style="list-style-type: none"> • One to One • Small Groups • Clarify everything • Modify all work (i.e. 10 spelling words instead of 20) • Dictate | <ul style="list-style-type: none"> • Re-directing him • Directions clarified • Extra time |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 3 | 3 | 3 |
| What are the student's academic strengths and weaknesses? | Strengths: Math Weaknesses: Reading and fluency | Strengths: Math facts Weaknesses: Writing and Reading | Strengths: Can verbally re-tell stories Weaknesses: Writing skills and organization of thoughts |
| What are the student's social strengths and weaknesses? | Strengths: Very friendly, shares stories Weaknesses: talks fast, hard to understand | Strengths: Friendly, Sweet Weaknesses: Hard time communicating with others | Strengths: Friendly and caring Weaknesses: Can be shy and hard to control emotions |
| Does your student have behavior issues? (i.e. getting in trouble, not following | No | No | No |

| | | | |
|---|---|--|--|
| directions, not following the rules). Elaborate. | | | |
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 3 | 3 | 2 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 3 | 3 | 2 |
| How does the student interact with others in an academic setting? | He works better in a group, is a follower and is cooperative with others. | He works better alone, but in a group helps him work on his social skills. He is a leader and is cooperative, but can get frustrated easily with others. He fears he will take too long, will miss recess and kind of panics. He gets anxious. | He works better in a group, he is a follower, and can get frustrated easily. |
| How does the student interact with others in a social setting? | He plays in a group and is cooperative. | He plays with a group and is cooperative. | He plays both by himself and with others. He cooperates with others, but if someone pushes his buttons he gets frustrated. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | No. | No. |

Nature Journal Samples

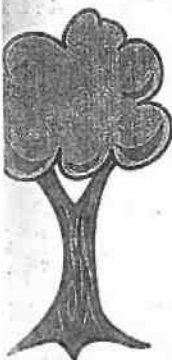










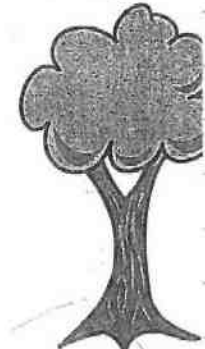

William O. Douglas





NATURE CHECKLIST

Take this checklist on your next walk outside.
Check off all the things you find.

| | | | | |
|---|---|-------------|-------------------------------------|---|
|  |  | rock | <input checked="" type="checkbox"/> |  |
| |  | soil | <input checked="" type="checkbox"/> | |
| |  | grass | <input checked="" type="checkbox"/> | |
| |  | twig | <input checked="" type="checkbox"/> | |
| |  | bird | <input checked="" type="checkbox"/> |  |
| |  | tree bark | <input checked="" type="checkbox"/> | |
| |  | leaves | <input checked="" type="checkbox"/> | |
| |  | insect | <input checked="" type="checkbox"/> |  |
| |  | litter | <input checked="" type="checkbox"/> | |
| | | <u>lack</u> | <input checked="" type="checkbox"/> | |
| | | | <input type="checkbox"/> | |

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Limoneira

Date: Monday, March 4, 2013

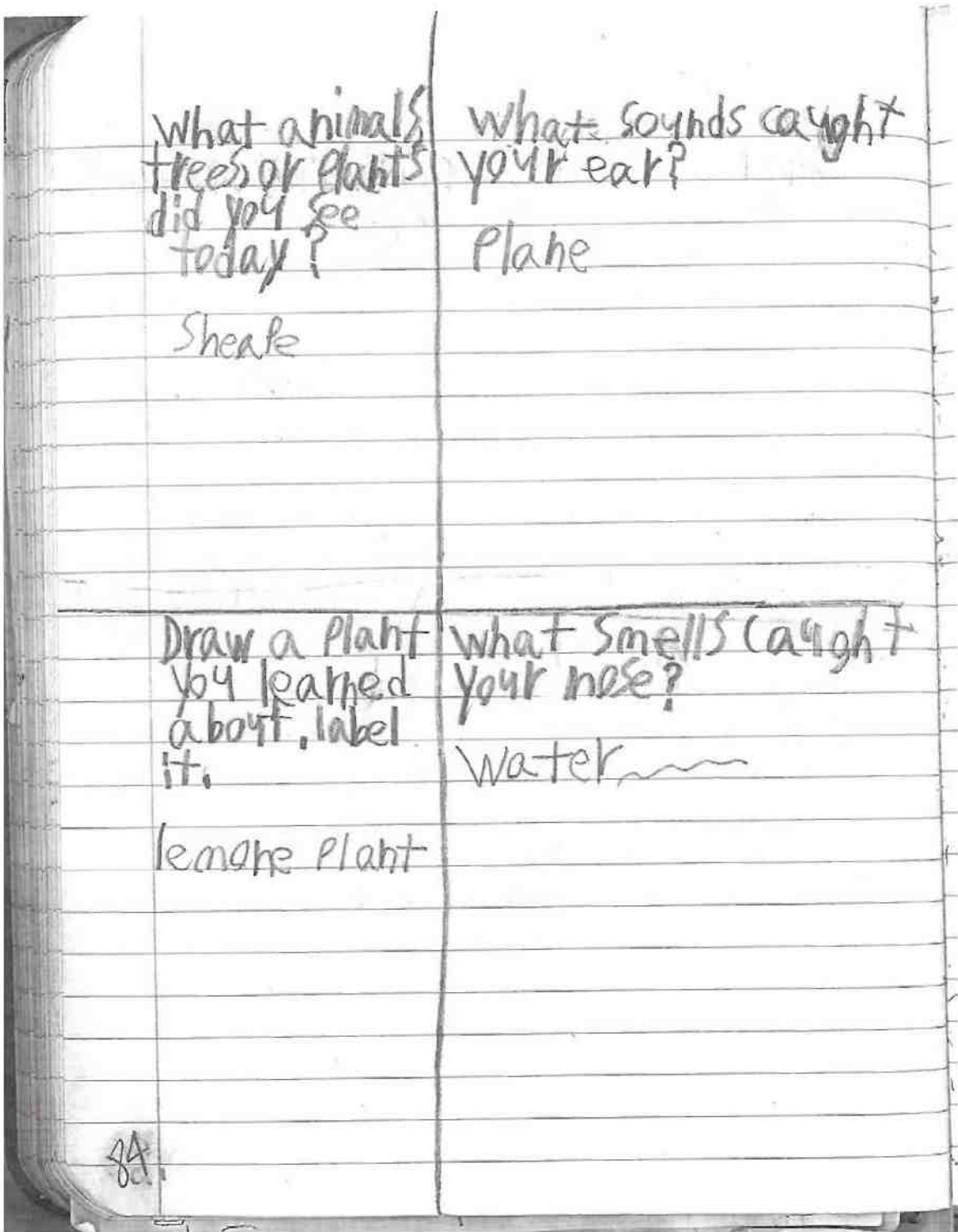
Nature trip's Date: Wednesday,
March 6, 2013

I am going to Limoneira on
Wednesday, March 6, 2013.

Weather: Cut & Paste today.
Weather in your book and write
what kind of clothes will need
today. I should wear a t-shirt
and basketball shorts.

At Limoneira, I think I am
going to pick lemons.

At Limoneira, I think I am
going to see a lemon factory.



What animals, trees or plants did you see today?

Sheep

What sounds caught your ear?

Plane

Draw a plant you learned about, label it.

lemon plant

What smells caught your nose?

Water

JA

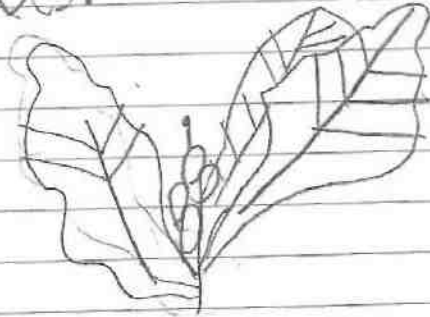
3.6.13 limonheira observations
Today's weather is: Partly
cloudy



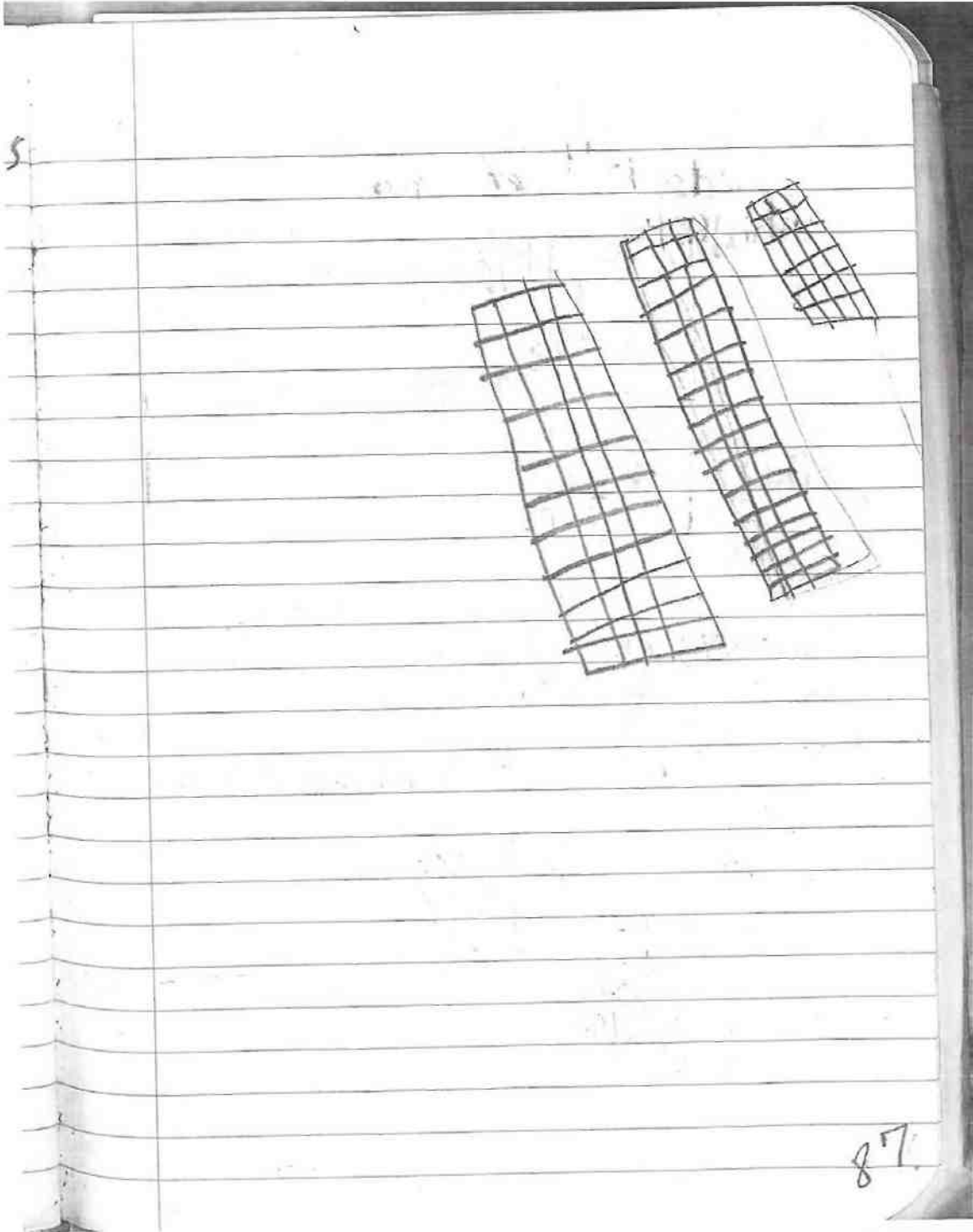
1. 30,000,000 pounds

2. The lemon gets really tiny then
it turns green. Then it gets
bigger and yellower.

3. Then they get to pick lemons to
places.



86



| Animals | trees | Plant |
|----------|---------------|---------------|
| . Sheep | Lemon | Native plants |
| . fly | Faberge | |
| . birds | - grape fruit | |
| . ants | - orange | |
| . lizard | | |
| . rabbit | | |

what sounds caught your ears

- tractors
- "boom boom"
- "air plane"
- water

Leaves
birds
ear
Lemon blossoms
stem

what smells caught your nose?

- 1. water
- 2. lemons
- 3. oranges
- 4. soap

Steps on how a lemon travels

1. Seed

2. bud

3. lemon blossom (1 week)

4. lemon (9 months)

5. Harvests lemons

6. Cleaning the lemons with chlorine with chlorine

7. Put a wax coat (Shine and preservation)

8. Take a picture → 89

9. Sort it by color

10. grade it

11. Put it in a box

12. Ship it


grade: A - Fancy / Choice

Santa A - Fancy (Best) + (


Payle B - Choice (shipped to other -
countries)


lemon - standard (lemonaid)
box

Tools used to harvest

1. Ring - to measure 

2. Clippers - stems were clipped

3. Bag-lemons (50 lbs) 

4. gloves - safety from thorns 

• Limoneira has 3000 acres of lemons.

• Produces 130,000,000 lbs of citrus

• Limoneira is being sustainable by using solar solar panels for energy instead of burning natural gas.

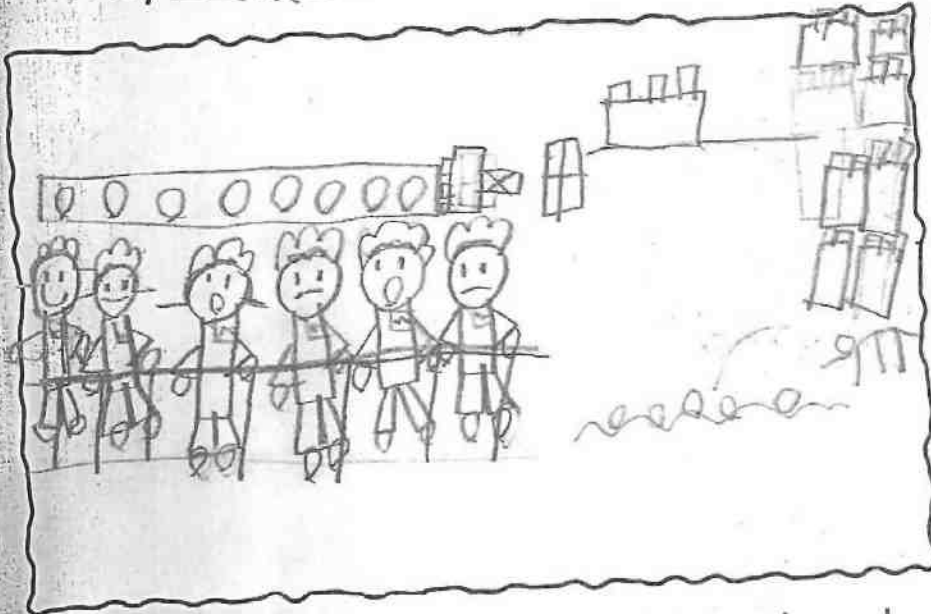
• Natural gas puts carbon dioxide into the air

• Limoneira is also being sustainable by planting native plants on their roof.

The native help clean our air by turning carbon dioxide into oxygen. → 91

I Love Nature

by Jack



Mrs. Ara gah's class and I explored

Limoneira.

I saw Lemon's Solar panels,

and I heard a factory.

I touched plants.

It felt hard!

William O. Douglas

Fun Fact

The Chameleon has a tongue that is one and a half times the length of its body

How could you help others to make responsible choices about what they do at William O. Douglas?

Yes my predictions were correct. On the nature trip we did and saw

Yesterday, I went to William O. Douglas Outdoor School. I enjoyed hiking up the mountain.

I learned that there is a plant called a taco plant. It is called a taco plant because its leaves shape like a taco. In the winter the leaves hold water. In the summer they protect themselves from burning.

I would rate the trip (5) because it was really fun because I got to play in the nature center

Sustainability means to make good decisions so we can take care of the environment by thinking before we act, be responsible for our actions, and to make the earth so it can last longer.

Humans can have both a good and bad impact on their local community. For example, the amount of people can either increase or reduce the land, air, and water quality.
More people = reduced quality
less people = increased quality

To make places more sustainable we can collect recycling items, think before we act, grow more plants, and remind others about caring and protecting the environment.

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix E: Violet

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goals | Baseline | Midline | Final |
|--|---|--|---|
| <p><u>Communication Goal:</u> In the speech room, resource room and classroom, Violet will identify and use regular and irregular verbs, adverbs, prepositions, and coordinating conjunctions in writing and speaking in 4 of 5 opportunities given no more than 1 prompt each opportunity with 80% accuracy as measured by observation record.</p> | <p>50% accuracy with 4/5 opportunities— Skill still recently introduced. We are working on adverbs and prepositions.</p> | <p>65% accuracy with 4/5 opportunities— Making progress. We are working on conjunctions, regular verbs, and irregular verbs. She is making good progress.</p> | <p>80% accuracy with 4/5 opportunities— Attained Goal.</p> |
| <p><u>Communication Goal:</u> In the speech room, resource room, and classroom, Violet will ask questions and support answers by connecting prior knowledge with literal and inferential information found in text in 4 of 5 opportunities given no more than 1 prompt with 80% accuracy each opportunity as measured by observation record.</p> | <p>New Goal--Skill recently introduced.</p> | <p>50% accuracy with 4/5 opportunities. Working on answering questions using information found in a story.</p> | <p>80% accuracy with 4/5 opportunities— Attained Goal.</p> |
| <p><u>Writing Goal:</u> Given a graphic organizer, Violet will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points independently in 5 paragraphs as measured by work samples and observation records.</p> | <p>1 paragraph independently— Making great progress.</p> | <p>4 paragraphs with help— Making great progress.</p> | <p>4 stronger paragraphs, 50% independently, 50% with help. Making excellent progress.</p> |

Nature and Outdoor Education

Reading Goal: When reading a selection aloud, Violet will use previous knowledge and ideas from illustrations, titles, topic sentences, clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record.

| | | |
|---|---|---|
| 40% accuracy per trimester— Making progress. | 65% accuracy per trimester— Making great progress. | 90% accuracy per trimester— Exceeded goal. |
|---|---|---|

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|------------------------|----------------|---------------------------------------|
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 4-6 hours | 4-6 hours | 4-6 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 4-6 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 1-3 hours | 4-6 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: Soccer and Karate | Yes: Soccer | No: But we are going to start dancing |
| How much time does your child spend having unstructured play? | 10+ hours | 1-3 hours | 1-3 hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 1-3 hours | Yes: 1-3 hours | Yes: 1-3 hours |
| From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self- | 4 | 2 | 3 |

| | | | |
|---|---|---|---|
| esteem in general? | | | |
| What are your child's academic strength's and weaknesses? | Strengths: Math Weaknesses: Reading and Writing | Strengths: Math and History Weaknesses: Reading and Writing | Strengths: History, Science and Math Weaknesses: Writing and Reading |
| What are the child's social strengths and weaknesses? | Strengths: Friendly, happy kid, very connected with her emotional side. Weaknesses: always compares herself and feels sorry for herself. | Strengths: Friendly, Happy, Caring Weaknesses: Always compares herself to others. Kids really like her but she doesn't know it. She needs to believe in herself. | Strengths: Caring and Friendly Weaknesses: Cares what people say. |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 3 | 3 | 3 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | She prefers to play with a group; she is cooperative and primarily a leader. She can also give people a turn to choose what they want to do. | She prefers to play in a group, she is cooperative with others and she can be both a leader and a follower | She prefers to play in a group, she is cooperative with others and she is more of a follower. She is great with others. |
| Does your child primarily play with children their same age or different age? | Same Age | Same Age | Same Age, but she likes to play with older and younger kids too. |

| | | | |
|--|-----|---|---|
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | She has always been a very enthusiastic child. Very happy. | She loves nature. She is very enthusiastic about nature. |
|--|-----|---|---|

Final Parent Survey

| Questions | Answers |
|--|---|
| <p>How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/behavior, and (3) academics?</p> | <p>The environment-based education really helped my child with her self-esteem. The day of the presentation she was very nervous of what her friends would think. When all of the kids told her how great and lucky she was, she was so proud to have done this unit. She is now more aware of how to help the environment. She would bring home ideas on how to recycle, how to eliminate trash, how to make lunch without making any waste. She also educated with our family and it has been life changing in our home.</p> <p>I love the idea of going to a place, reading about it, and then experiencing, then learn about nature and the outdoors. So yes this way works, but her Math grade has dropped from and A to a C. Her Science from an A to a B. She doesn't know how to write a sentence story so I don't know how I feel about this. The idea is great, but how can we do this incorporating math and writing? I know writing and reading is involved, but don't know if it helped academically. I have mixed feelings.</p> |
| <p>Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.</p> | <p>She has had a huge awareness of nature. I think the whole school should do this nature trip. It would help the environment.</p> |
| <p>Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain.</p> | <p>She always tells us to reduce, reuse, and recycle. She speaks about giving her old clothes to others so they can reuse them. Water bottles, to reuse the old ones. We purchase small bags that you can reuse many times and have not used plastic bags. She had a garage sale to sell her stuff instead of putting it in the trash.</p> |
| <p>In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained</p> | <p>We recycle; give to others things we don't use. My family now calls each other and will tell us what they have and then take it to the Salvation Army. My sister would</p> |

| | |
|---|---|
| during the Nature Trips? Please elaborate why or why not. | always throw away all of their clothes. Violet spoke to her and now she gives or donates it. She had a huge impact in her life. (She-my sister-was very wasteful). They play school at home and Violet teaches kids how to recycle and reuse. I really love this topic. It has changed our home and lifestyle. |
| Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions? | I would like her to participate, but instead of twice a month, I would like it to be once a month. Violet needs to get her grades up and focus on school, but I loved how much she learned about nature. I would love for them to meet people who have some sort of disability and how they are now successful and how children who think outside of the box can invent things that people can't think of. They should embrace their different way of thinking and see how they can make a huge impact in life, just like the people who work in the environment. |

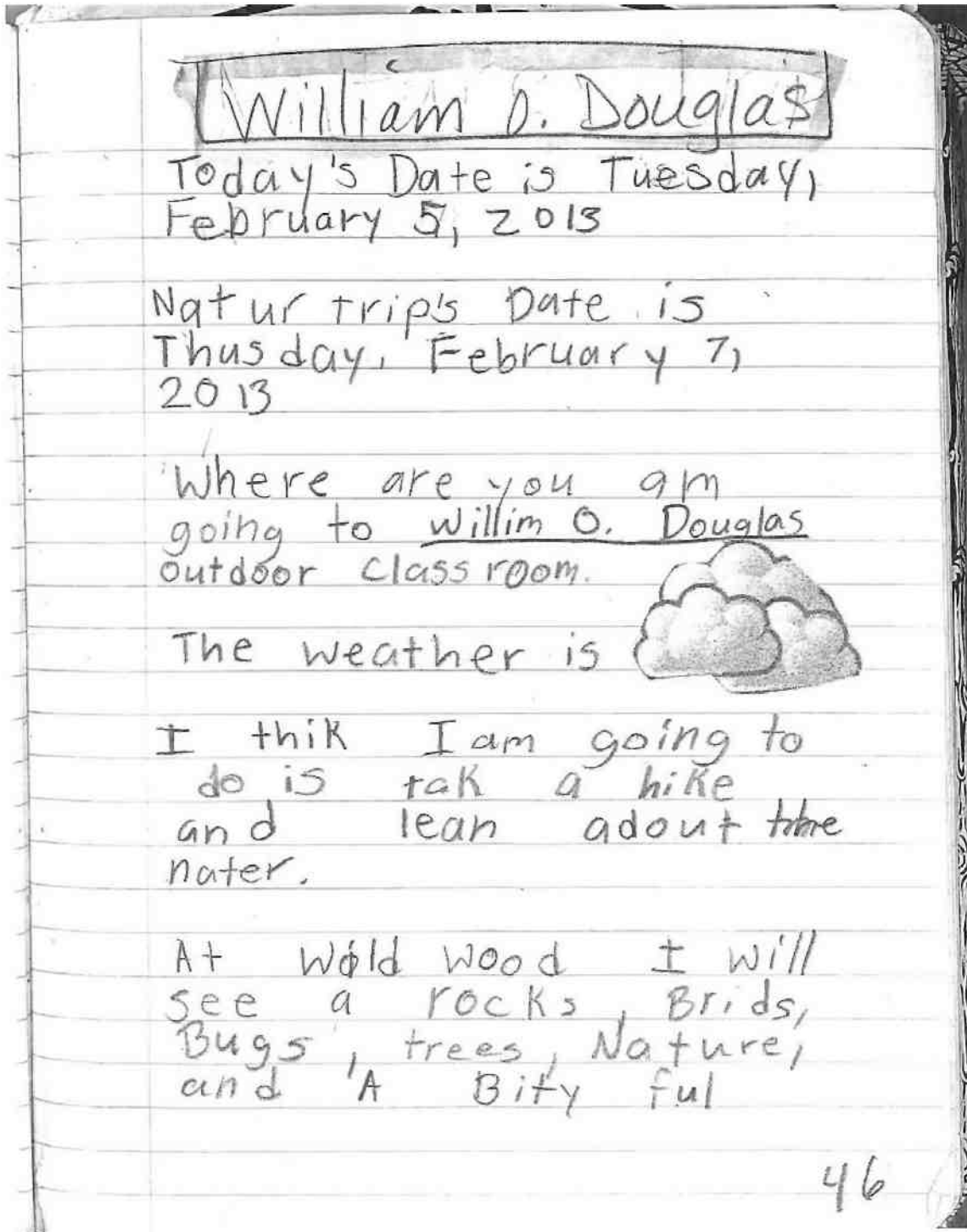
Teacher Questionnaire

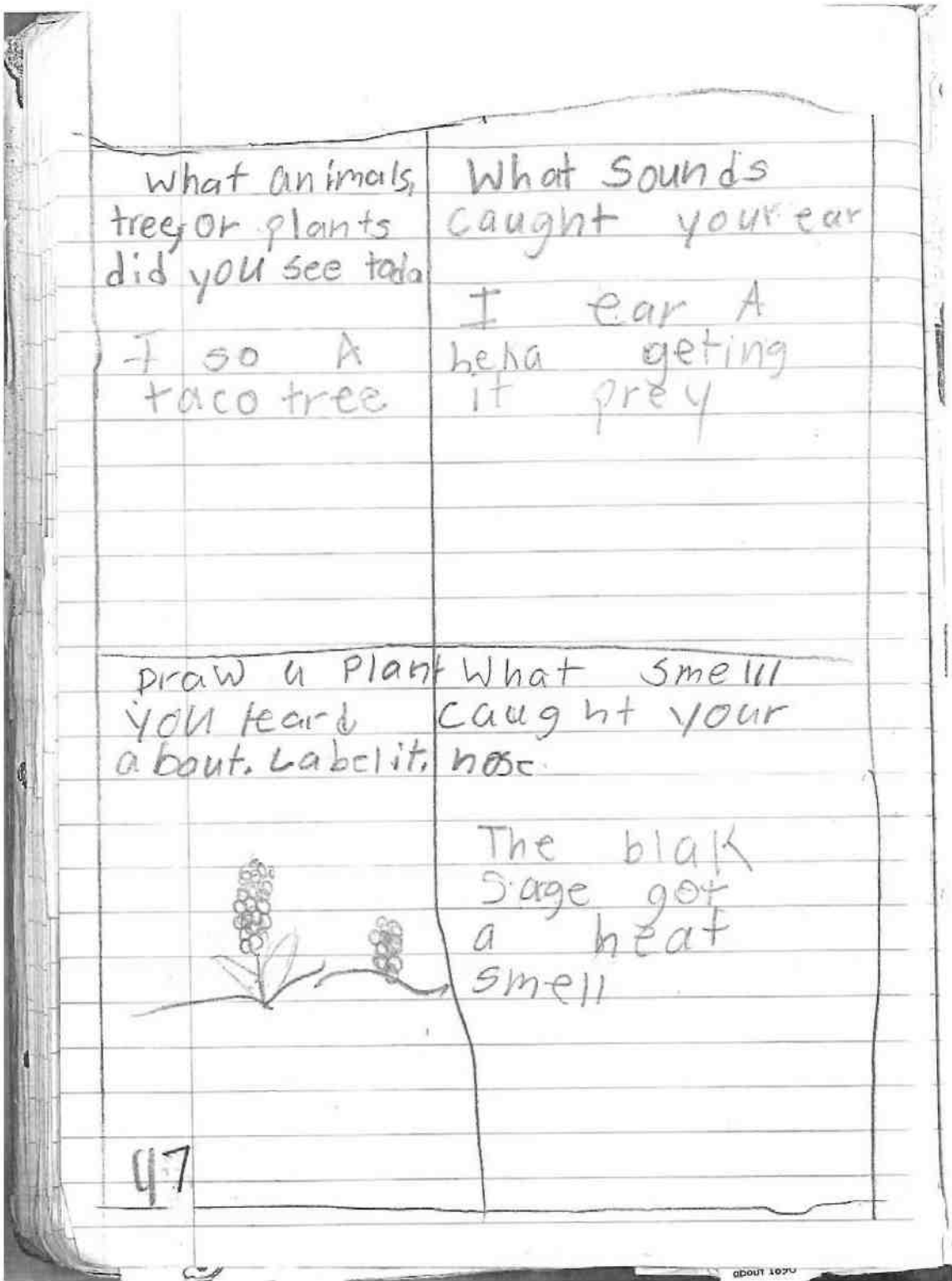
| Question | Baseline Answer | Midline Answer | Final Answer |
|--|---|---|--|
| What are the student's current grades? | Reading: N/A Writing: N/A Mathematics: N/A Science: N/A Social Studies: N/A | Reading: Writing: Mathematics: B+ Science: A Social Studies: B | Reading: Writing: Mathematics: C Science: B Social Studies: A |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Reading questions/directions • Preferred Seating • Chunking instruction | <ul style="list-style-type: none"> • Read tests aloud • Preferred seating • Small group work | <ul style="list-style-type: none"> • Preferred seating • Read test questions aloud |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 3 | 4 | 4 |
| What are the student's academic strengths and weaknesses? | Strengths: Art Weaknesses: Focus and attention span | Strengths: Doing great in Math, Science and Social Studies Weaknesses: Reading fluency and comprehension | Strengths: Math, Science, and Social Studies Weaknesses: Writing |
| What are the student's social strengths and weaknesses? | Strengths: Very social. Likes to chat with peers Weaknesses: Knowing boundaries, when/what is appropriate | Strengths: Gets along well with others Weaknesses: Self-control and chatty | Strengths: Kind and close to good friends Weaknesses: Doesn't have <i>many</i> friends |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate. | Yes: Distractible and distracts others. Chatting with neighbor during work time. | No | No |

| | | | |
|---|---|--|--|
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 3 | 4 | 4 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 3 | 4 | 4 |
| How does the student interact with others in an academic setting? | She works better alone because she is easily distracted and unfocused, primarily is a follower, and she is cooperative with others. | She works better alone, is a follower and cooperative. She works well with others but can be distracted. | She works better alone, she is a follower, and is cooperative. |
| How does the student interact with others in a social setting? | She plays in a group and cooperative. She is friendly with others, but a follower and concerned with others' business. | She plays in a group, has friends and gets along with others. | She plays in a small group and is cooperative. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | She has better focus, great attitude toward school. She is working so hard in my class and at home. | She has better self-esteem, more willing to participate, better focus, less chattiness and off-task behaviors. |

Nature Journal Samples

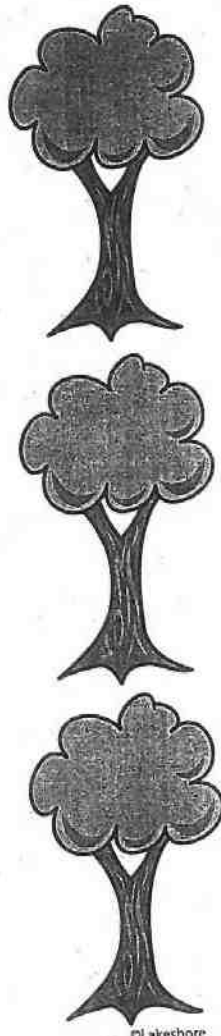
William O. Douglas






NATURE CHECKLIST

Take this checklist on your next walk outside.
Check off all the things you find.



-  rock
-  soil
-  grass
-  twig
-  bird
-  tree bark
-  leaves
-  insect
-  litter
- Plats
- taco tree

lakev

lakev
taco tree
lakev plats ✓ 48

MIRCA

Franklin Canyon

Safety Tips

While enjoying the park please keep these quick safety tips in mind.

Poison Oak

Poison oak has lobed leaves that grow in bunches of three, and are shiny. Poison oak grows like a shrub, a vine, or along the ground. It is found throughout California, mostly in shady areas.

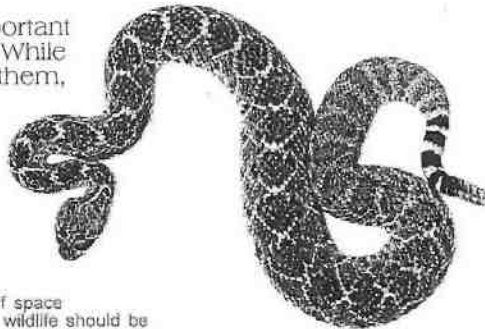


What should I do?

All parts of the plant carry the toxic oils (leaves, stems, berries, flowers). The oil causes a skin rash which appears within 12-48 hours, and can last up to 4 weeks. The best protection against exposure to poison oak is to wear enclosed shoes, long pants, and long-sleeved shirts while hiking. Once the toxic oil is absorbed into the skin, it is no longer contagious. "Leaves of three, let it be."

Rattlesnakes

Rattlesnakes are an important part of our ecosystem. While dangerous to us, without them, rodent populations would rise to high levels causing a serious imbalance in our environment.



What should I do?

Watch where you put your hands, your feet, and your seat. Stay on designated trails. If you see a rattlesnake, give it plenty of space so it does not feel threatened. All wildlife should be observed from a safe distance.

Ticks

Don't forget to check for ticks! There are several types of ticks found in Southern California and may be carriers for disease.



What should I do?

Keep ticks on the outside of your clothing by tucking shirts into pants, and pants into socks. Check frequently for ticks while outdoors. If bitten, carefully remove the tick by grasping the head with fine-pointed tweezers and slowly pull straight out. Do not squash the tick, remove with your fingers, or try to twist or burn the tick from your skin.

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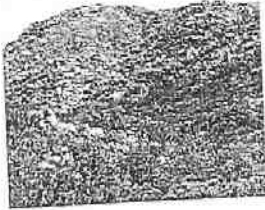
Franklin Canyon

Natural Resources

Mediterranean Climate

Did you know that we live in a Mediterranean climate? This type of climate is only found in five places in the world, including right here in Southern California. Mediterranean climate is characterized by warm, dry summers and cool, wet winters.

Two Plant Communities Found in Franklin Canyon:



Chaparral

This is a community of dense, evergreen brush, seldom over 15 feet in height, which covers the steep, rocky slopes. Fire is an essential part of the Chaparral and acts as the primary decomposer. This helps to cycle nutrients and allows shrubs to regrow quickly. With little rain and thin soil lacking in nutrients, only plants adapted to these harsh conditions can survive. Many shrubs

have small thick leaves with a waxy coating to minimize water loss to evaporation. Animals in the area also have special adaptations to help them survive. Mule deer rest in the shade during the heat of the day and browse in the cool mornings and evenings. Other animals, such as skunks and pocket mice, are nocturnal, spending the day underground to escape the heat.

Plants to look for: Chamise, Black Sage



Black Sage



Chamise

Oak Woodland

Large oak trees dominant this community and are surrounded by grass, flowers, and a few shrubs. The rich, moist soil allows the trees to grow tall and provides a good home for ground-dwelling insects. In the shade of the oak trees, squirrels and pocket gophers often dig their holes. Hawks often perch in the larger, higher branches of the oaks.



Sycamore

Plants to look for: Coast Live Oak, Sycamore



Coast Live Oak

For more information, please visit the following websites:

- http://www.lamountains.com/parks_plants.asp
- <http://www.nps.gov/samo/naturescience/index.htm>



**Franklin Canyon
Cultural Resources**

Tongva

The Tongva people, also known as the Gabrielinos, were earlier inhabitants of the Los Angeles Basin. The Tongva had a very special relationship with the land, as it provide resources for food, tools, shelters, and other necessary objects. Their villages consisted of about 30 round houses, called *Kis*, made of interwoven branches and grasses. Smoke from cooking fires would come out of the holes in the roofs.

The young boys of the tribe played a game with hoops and sticks to practice their hunting skills. This and other games would help them prepare for being an adult when their main tasks would be finding meat for the village. In contrast, the young girls and women would often weava baskets from reeds, make clothing from animal skins, and collect berries for meals.

Much of their daily lives were changed by the introduction of the Spanish to California. Most of the Tongva people joined the Mission de San Gabriel, with others going to missions San Fernando and San Juan Capistrano. Even through these and other recent changes to the area, it is estimated that a few hundred to a few thousand Tongva still call Los Angeles home.

Plants used by the Tongva:



Toyon

• **Coast Live Oak:** Acorns, the seeds of oak trees, were a vital food source for the Tongva, being both nutritional and plentiful.



Coast Live Oak

• **Toyon:** The berries of this plant were eaten fresh, roasted, or boiled. They also could be made into a refreshing drink. The Tongva would use the bark and leaves to make a tea for stomach pains and other body pain.



Yucca

• **White Sage:** The leaves of this plant were used in many ceremonies and traditions because of their strong odor.



White Sage

• **Yucca:** The blossoms were eaten raw, roasted or cooked. The leaves would be made into fine white fibers for basket weaving and cordage for ropes and nets.

**A replica Ki is available onsite for your students to experience and explore.*

CHAPARRAL WILDLIFE GUIDE

Red-tailed Hawk—*Buteo jamaicensis*
Often seen soaring in wide circles in search of small rodents, this broad-winged hawk with a characteristic red tail makes up almost 95% of the hawk population of the Santa Monica Mountains.



"Chaparral Cats" are shy and secretive. Dens are in rock crevices and caves:

Cougar—*Felis concolor*

A large tawny cat whose diet is 50% deer meat and 50% other small mammals.



Bobcat—*Lynx rufus*

Likely to be seen sunning in a clearing or on a rock ledge. It eats ground squirrels, brush rabbits, woodrats and other small mammals.



Scrub Jay—*Aphelocoma coerulescens*

A blue bird with a large bill noisily announces your presence in the chaparral. There are no drab females, sexes look alike. Jay will eat almost everything.



Brush Rabbit—*Sylvilagus bachmani*

Grasses, lupines, thistles and wild roses are favored by this small mammal who seldom feeds more than a few feet from the protection of a thicket.



Dusky-footed Woodrat—*Neotoma fuscipes*

Builds conical homes in thickets at bases of shrubs. Leaves and seeds are eaten and the twig "leftovers" are used for home construction. It's waterproof, too!



California Ground Squirrel—*Citellus beecheyi*

Seeks food of seeds, acorns and roots on the ground and safety in a burrow. Can be seen scampering from burrows in the day time.



Common Kingsnake—*Lampropeltis getulus*

This gentle snake with brown and cream colored alternating bands feeds on lizards, frogs, bird's eggs, small mammals and other snakes, including the rattlesnake. It is immune to the venom of the rattler.



Mule Deer—*Odocoileus hemionus*

A shy mammal who browses on the tip growth of shrubs and tall grasses at woodland edges of the chaparral.



Coyote—*Canis latrans*

Tolerant of man, with a universal appetite that favors ground squirrels, rabbits, and other small mammals. Its den, usually in a cave, could be an enlarged burrow of a ground squirrel.



Wrentit—*Chamaea fasciata*

"The Voice of the Chaparral" Often heard and seldom seen, this small brown bird with a staccato call (and white eyes) searches for its diet of insects and berries in dense brush. It sings year round.



Gopher Snake—*Pituophis melanoleucus*

Active chiefly during the day, this snake slips easily into burrows. It feeds on small rodents. Often several mice can be caught in one "squeeze". Victims are pressed to the side of a burrow and are suffocated when they attempt to escape.



Pacific Tree Frog—*Hyla regilla*

Sticky toepads permit this small frog with the black eye strips to climb up from its ground habitat. It's able to lighten or darken its basic color to match the environment and is never far from water.



MIRCA
MOUNTAIN REGIONAL
COUNCIL OF RECREATION
AGENTS

Wildlife

Wildlife in the LA Mountains

Wildlife can be fun to watch in all seasons. Opportunities to see California ground squirrels, mule deer, raccoons, raptors and more, is easier than you might think. Look for animal signs, such as tracks, fur, bones, scat (animal droppings), nests and holes in the ground. Remember, we are visitors in their home.

Keep your steps light and your voices low!

Do not disturb the animals or their homes.



Red-Tailed Hawk Cooper's Hawk Barn Owl Red-Shouldered Hawk Great Horned Owl



Spotted Skunk Opossums Badger Raccoon



Mule Deer Mountain Lion Coyote Bobcat



Pocket Mouse Ground Squirrel Brush Rabbit Pocket Gopher

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MPCA
MOUNTAIN PARK CALIFORNIA
NATIONAL RECREATION AREA

Wildflowers

Come year after year to enjoy Wildflower Season

Take a closer look at these dazzling blooms and admire their many shapes, colors, and fragrances, right on the trail. Try to guess what animals they attract, and why. Picking wildflowers can certainly provide for a wonderful day in the park. However, picking wildflowers removes the essential seeds needed for that plant to grow another season. In effect, you are taking away future generations for that plant. Remember, take only memories, leave only footprints!



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What is sustainable
about William O.
Douglas?

We need them heal
and pick up the trash that

Fun Fact

The Chameleon has
a tongue that is
one and a half

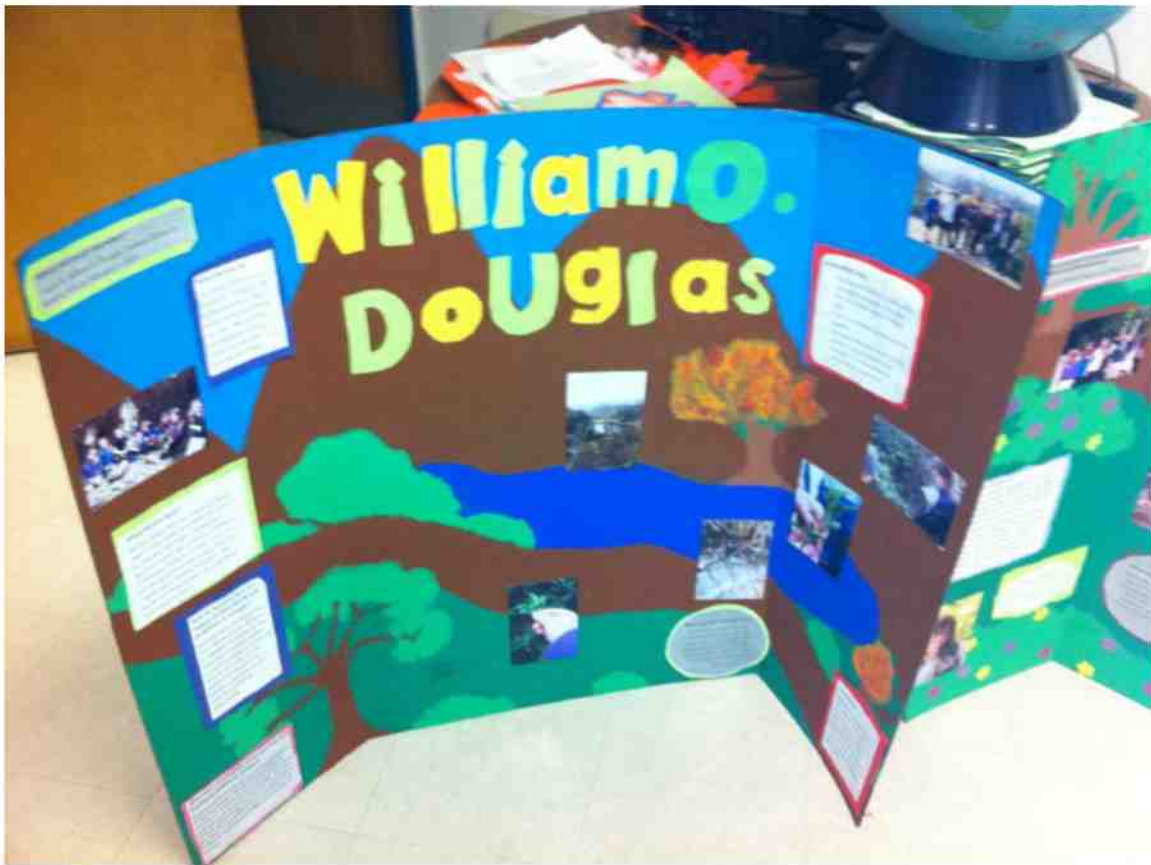
Yes my predictions were correct. On the Nature trip we did take a hike and learn of Nature and I saw rocks, Bugs, Dirt, and Butiful fow

Yesterday, I went to William D. Douglas outdoor school.

I leard that that you can eat the toca tree and not the sa cober tree.

I would rate the trip 4 becaus I like the hike put it was trid

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix F: Nick

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goal | Baseline | Midline | Final |
|---|---|---|---|
| <u>Communication Goal:</u> In the speech room, resource room, or classroom, given one verbal/ visual prompt Nick will use conjunctions to form grammatically correct complex sentences in speaking and writing in 4 of 5 opportunities for 3 trials as measured by observation record. | 65% accuracy with 4/5 opportunities— Making progress. | 70% accuracy with 4/5 opportunities— Doing well when given two sentences to combine. | 75% accuracy with 4/5 opportunities— Making great progress. |
| <u>Writing Goal:</u> Given a written/ verbal prompt, Nick will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with fewer than 4 prompts in 2 paragraphs as measured by work samples and observation record. | 4 paragraphs with help and prompting— Making progress. | 1 paragraph independently with 10+ prompts reminding to stay on task. Behavior interferes with learning. | 1 paragraph independently with 6 prompts— Making steady progress, but inability to focus interferes with his progress. |
| <u>Reading Goal:</u> When reading a selection aloud, Nick will use previous knowledge and ideas from illustrations, titles, topic sentences clues and key words, to make and to confirm predictions with 85% correct for a trimester as measured by work samples and observation record. | 60% accuracy per trimester— Making great progress. | 70% accuracy weekly—Making great progress. | 80% accuracy per trimester— Almost there, he is making great progress. |

| Parent Questionnaire | | | |
|--|--|---|---|
| Question | Baseline Answer | Midline Answer | Final Answer |
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 7-9 hours | 7-9 hours | 7-9 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 1-3 hours | 1-3 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: He plays football, baseball, and basketball | Yes: Baseball, football, and basketball | Yes: Baseball, football, and sometimes basketball |
| How much time does your child spend having unstructured play? | 4-6 hours | 4-6 hours | 4-6 hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 1-3 hours | Yes: 4-6 hours | Yes: 1-3 hours |
| From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self- | 3 | 3-5 | 3 |

| | | | |
|--|---|--|---|
| esteem in general? | | | |
| What are your child's academic strength's and weaknesses? | Strengths: he can remember a verbal story Weaknesses: Reading | Strengths: Math Weaknesses: Reading and spelling | Strengths: Math and Science Weaknesses: Reading and Writing |
| What are the child's social strengths and weaknesses? | Strengths: he loves to talk and relate to anyone. Weaknesses: He has a lot of energy | Strengths: He likes to talk Weaknesses: No Response | Strengths: Relating to older people Weaknesses: Having too much energy in relating to peers. |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 2 | 3 | 3 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | He likes to play sports with other children. He likes to lead. | My son likes to play sports with a group of children. He plays as a leader and a follower. | He likes to do some type of sports or play Legos. He likes to be busy. |
| Does your child primarily play with children their same age or different age? | Same Age | Same Age and Older Children | Same Age and Older Children |
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | Since the Nature Trips he has had a lot of happy times at home, instead of frustration. | He has been excited about school He has not complained about feeling sick. |

Final Parent Survey

| Questions | Answers |
|--|--|
| <p>How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/ behavior, and (3) academics?</p> | <p>Nick's self-esteem has been a lot brighter. He has not had a bad attitude about how he is not as smart as other kids in reading and spelling. When he leaves the car in the morning he has an excitement about the day at school. His mental attitude has taken a 100% turn around.</p> <p>Before the program started, he would always fake illnesses. He would come home and be so frustrated and hit the dog. He had so much anger inside because he could not keep up with the other kids. Everyday as we would try to do homework, my heart would break, because he was so upset he could not keep up with the other kids. Now, he tries in the other subjects and does not give up! Thank you!</p> |
| <p>Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.</p> | <p>When we go on hikes he tells us all about our surroundings. He tells us about nature and how to take care of the environment. He talked a lot about going to the Islands and seeing the dolphins.</p> |
| <p>Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain.</p> | <p>He talks about things lasting longer.</p> |
| <p>In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not.</p> | <p>We have tried to take better care of our community and to visit more places on the weekend. We have found out about more places that are local.</p> |
| <p>Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions?</p> | <p>I think that using all your senses in learning makes such a big difference in learning. It makes learning fun and exciting for people who learn differently than others. It makes a big difference. Hands on learning refreshes mind, body and spirit through the outdoors. To use the outdoors as a schoolroom with hands on learning—what a gift! They will always remember this</p> |

year. This is a wonderful program and other schools should use it. I would love to have Nick in this program next year.

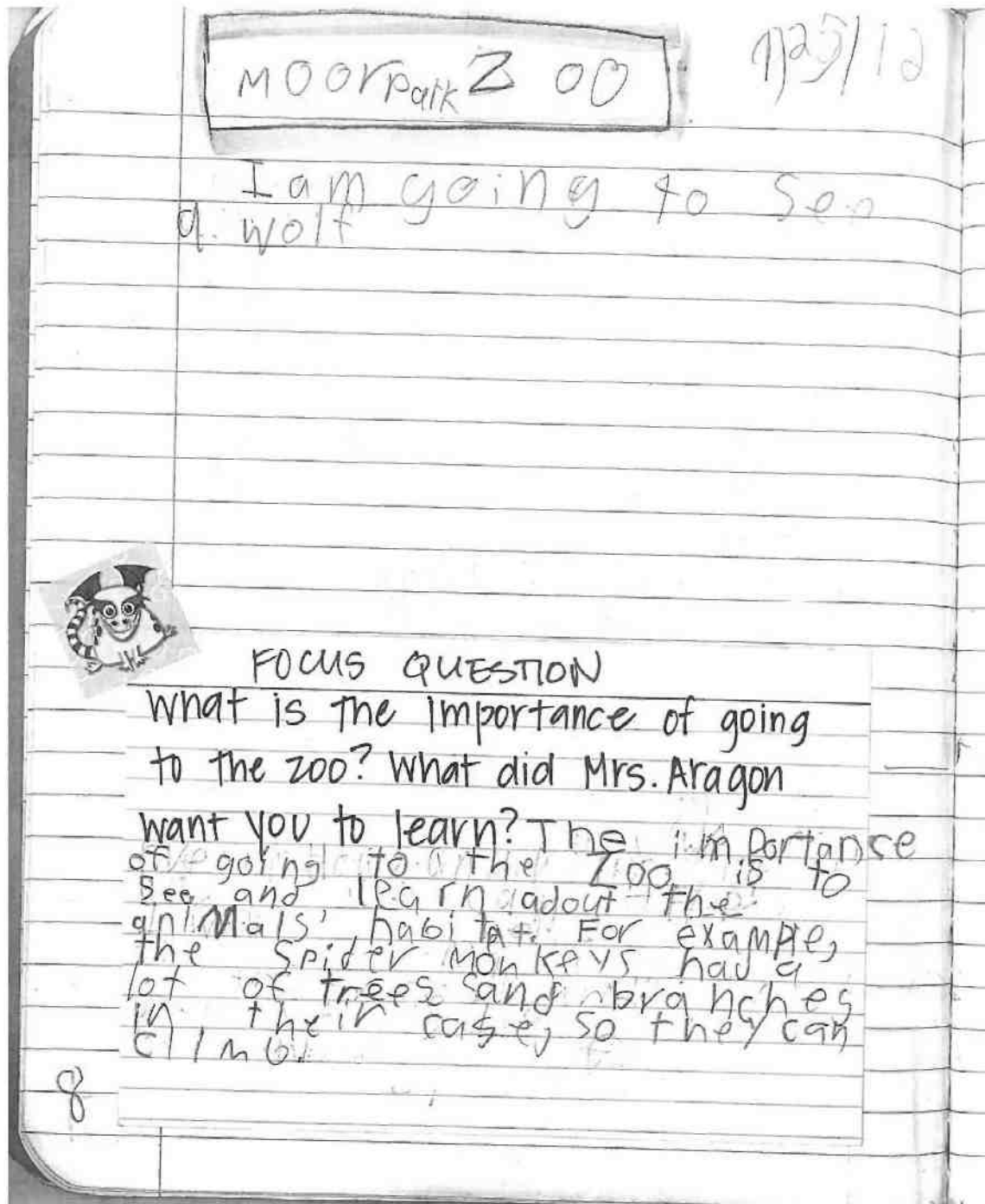
Teacher Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|--|---|---|
| What are the student's current grades? | Reading: C- Writing: C- Mathematics: A- Science: No Grade Social Studies: A | Reading: Writing: Mathematics: B- Science: B+ Social Studies: B+ | Reading: Writing: Mathematics: C- Science: C Social Studies: A |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • He gets help taking notes in Science and Social Studies. • He gets help reading and setting up word problems. • Gets modified curriculum in math | <ul style="list-style-type: none"> • Notes taken for him • Classwork modified so not frustrated with amount of work/homework • Tests are read to him | <ul style="list-style-type: none"> • Notes are taken for him in Science and Social Studies. • Assignments are modified in math • Math tests are read to him • Small group instruction during math |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 3 | 3 | 3 |
| What are the student's academic strengths and weaknesses? | Strengths: Math Weaknesses: Reading and comprehension | Strengths: Math and Verbal Ideas Weaknesses: Reading and Spelling | Strengths: Communication in math and has a good number sense Weaknesses: Reading and Writing |

| | | | |
|---|---|---|---|
| What are the student's social strengths and weaknesses? | Strengths: Loves sports and interacting with others Weaknesses: Feeling "dumber" than others | Strengths: Friendly and Helpful Weaknesses: At recess and PE he can be bossy because is very competitive in sports | Strengths: Outgoing and Friendly Weaknesses: Tends to bother some students |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate. | No | No | Yes, cannot focus on work, impulsive and fidgety |
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 4 | 3 | 3 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 4 | 3 | 2 |
| How does the student interact with others in an academic setting? | He works best in a group, he is a follower and is cooperative. | He works well in a group, he is a follower and is cooperative. | When working in a group he works well with others. Nick doesn't get frustrated, but sometimes his group gets frustrated with his lack of focus and participation. |
| How does the student interact with others in a social setting? | He plays with a group and is cooperative. | He plays with a group and is cooperative. However, at PE and recess he wants to be a leader and doesn't | Nick is cooperative, but very competitive. He doesn't like to loose. |

| | | | |
|---|-----|--|---|
| | | always know how to go about it and becomes bossy. | |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | Yes. He is more interested in school, wants to do his work to the best of his ability. | His self-esteem and attitude toward school has improved. He is reading more and wants to do well. |

Nature Journal Samples

Moorpark Zoo

1. A mackay can say
30 mis pir lawer.

2. Ward Boflw makp
Masthaki saiss

3. The sand baww
wall rape if siat ard
a party

→ Mrs. Aragon wanted
us to learn about
how we have an impact
on the animals' envit
onmeriti. One way that
we have a positive
impact on animals
is we protect them
from their preir predators.

9

MATES Gardening

10-10-12

Gardening

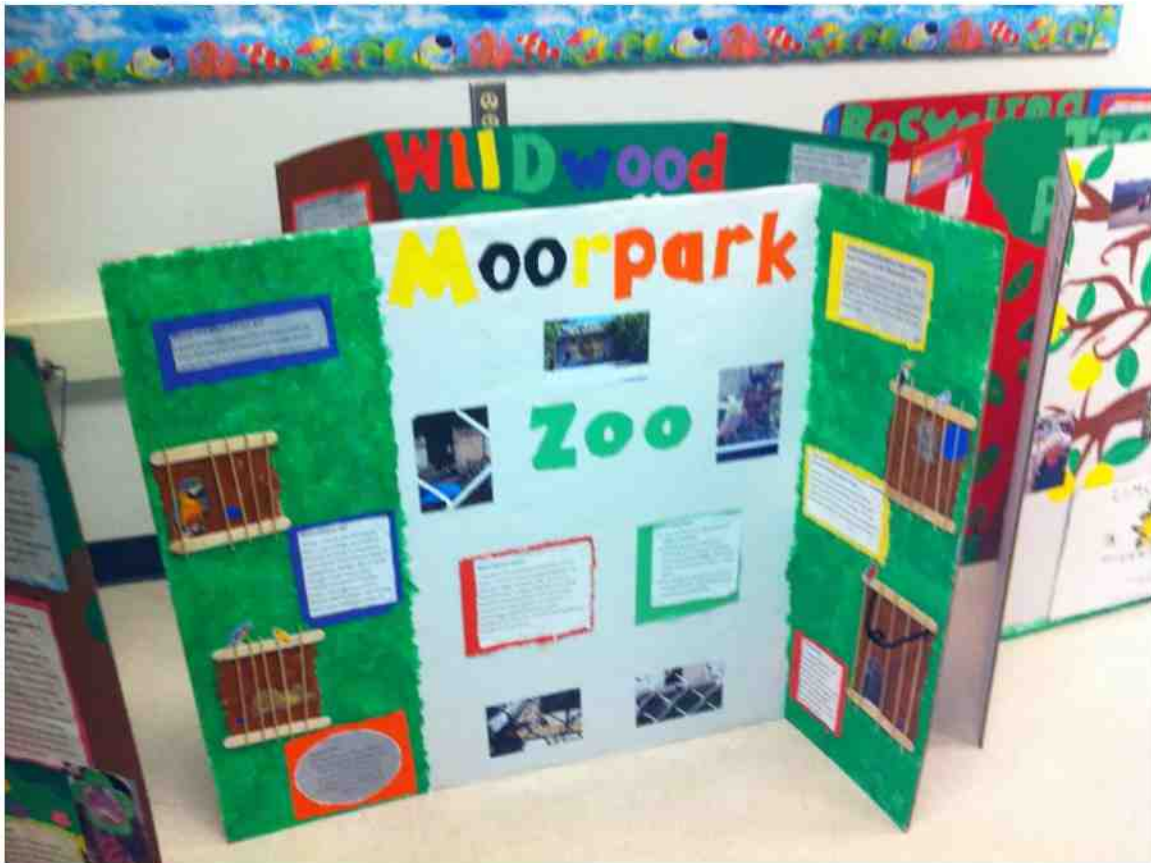
Sustainability means to last longer and protect the environment.

Humans impact their community waste electricity, waste water, cut down trees, pollute the air, water and land and waste food.

MATES can have a recycling program. Kids will know what to recycle because we will make signs, set a good example, give a presentation, and make posters.

10

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|--|--|--|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix G: Jackson

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goal | Baseline | Midline | Final |
|---|---|---|---|
| <u>Writing Goal:</u> Given a written assignment, Jackson will create a multiple paragraph composition that provides an introductory paragraph with a topic sentence; includes supporting paragraphs with facts, details, and explanations; and concludes with a paragraph that summarizes main points with 80% correct for a trimester as measured by work samples and observation record. | 40% accuracy per trimester—Skill still recently introduced. | 4 paragraphs with help (60%) per trimester— Making progress. | 80% accuracy with 3 paragraphs with some help per trimester— Attained Goal. |
| <u>Reading Goal:</u> When reading a selection aloud, Jackson will read narrative and expository text aloud with fluency and accuracy with appropriate pacing, intonation, and expression with 90% correct for a trimester as measured by work samples and observation record. | 98 cwpm (95% correct) on a high 1st grade text per trimester— Making steady progress. | 112 cwpm on a 2nd grade text per week with (95% accuracy)— Making great progress. | 120 cwpm on a high 2nd grade text per week (95% accuracy)— Attained Goal. |
| <u>Mathematics Goal:</u> Given a calculator, Jackson will determine when and how to break a problem into simpler parts when presented with single and multi-step problems solving with 75% correct for a trimester as measured by work samples and observation record. | 50% accuracy per trimester—Skill recently introduced. | 60% accuracy per trimester— Making progress. | 70% accuracy per trimester—Almost met goal. |
| <u>Social/ Emotional Goal:</u> With direct verbal prompts, Jackson will stay on-task when completing an assignment with fewer than 3 prompts for a trimester as measured by observation record. | 7 prompts per trimester—Skill still recently introduced. | 1-3 prompts per trimester— Attained goal. | 1-3 prompts per trimester— Maintained the progress. |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|---|--|---|--|
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 1-3 hours | 4-6 hours | 1-3 hours |
| How much time does your child spend on the computer per week? | 1-3 hours | 4-6 hours | 1-3 hours |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours | 4-6 hours | 4-6 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: We do baseball, soccer and basketball on teams year round. We practice twice a week | Yes: plays sports (soccer, baseball and basketball) skateboards too | Yes: He plays baseball, soccer, and basketball |
| How much time does your child spend having unstructured play? | 10+ hours | 10+ hours | 10+ hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 10+ hours | Yes: 7-9 hours | Yes: 4-6 hours |
| From a scale from 1 to 5, 5 being the strongest, how would you rate | 4 | 5 | 5 |

| | | | |
|---|--|--|---|
| your child's self-esteem in general? | | | |
| What are your child's academic strength's and weaknesses? | Strengths: Math Weaknesses: Reading | Strengths: Math Weaknesses: Reading | Strengths: Very confident in learning Weaknesses: Doesn't realize he needs help in certain areas |
| What are the child's social strengths and weaknesses? | Strengths: very compassionate, loves people. Weaknesses: Needs to learn he is only 9 years old and get along with peers better. He has a 17 and 14-year-old sisters. He always wants to be older. | Strengths: always a leader Weaknesses: Needs to calm down | Strengths: Leader Weaknesses: Thinks everyone should be great in sports. |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 2 | 4 | 3 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | He prefers to play in a group. It depends on what the group is doing which will affect if he is cooperative or if he gets frustrated easily. He is primarily a leader. | He likes to be in a group and loves to be around people. He loves to lead, but also likes to learn new things from others. | He plays in a group and is primarily the leader. He gets frustrated when someone tries to boss him around |
| Does your child primarily play with children their same age or different age? | Older Children | Same Age and Older Children. He does love younger children too. | Younger Children, Same Age, and Older Children |

| | | | |
|--|-----|---|---|
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | He looks forward to all trips and I think it has changed his outlook on school a lot. He really enjoys his classes. | He just loves being outside. I believe it made school more exciting for him. He always points out things that he has learned. He has learned a lot about nature working together. He recycles and gives his money to the homeless. I find it to be a wonderful program. |
|--|-----|---|---|

Final Parent Survey

| Questions | Answers |
|---|--|
| How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/ behavior, and (3) academics? | Jackson loves being outdoors and it is something he feels very comfortable with. Having this program has made his interest in school so much better. It also makes him feel proud and special. |
| Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain. | He's always been such an outdoor child. I think he just notices a few more things now. |
| Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain. | Not really |
| In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not. | Jackson has started to recycle and gives the money to the homeless. |
| Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions? | I would love for him to be part of this wonderful program again. |

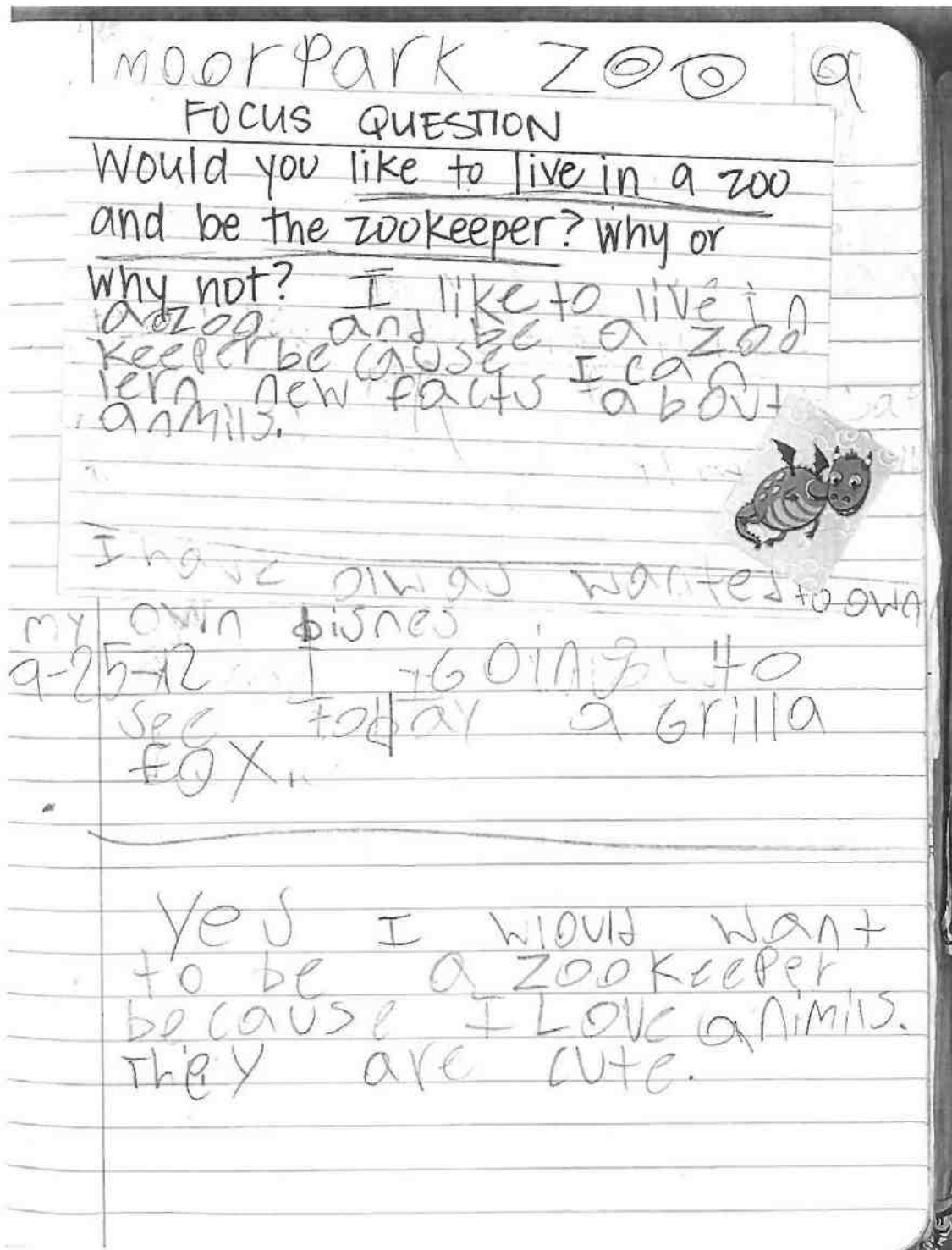
Teacher Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|---|---|--|
| What are the student's current grades? | Reading: N/A Writing: N/A Mathematics: N/A Science: N/A Social Studies: N/A | Reading: Writing: Mathematics: Science: A Social Studies: B | Reading: Writing: Mathematics: Science: B Social Studies: A |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Proximity • Extra classroom movement • Modified curriculum • Praise for good behavior • Behavior plan | <ul style="list-style-type: none"> • Use study guides on tests • Preferred seating | <ul style="list-style-type: none"> • Preferred seat • Use study guide on test |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 3 | 4 | Between 4-5 |
| What are the student's academic strengths and weaknesses? | Strengths: Class participation and likes to help Weaknesses: Focus and self-control | Strengths: Doing great in science and social studies Weaknesses: Reading and Math | Strengths: Participation, fluency improved, Social Studies and Science Weaknesses: Math and Reading Comprehension |
| What are the student's social strengths and weaknesses? | Strengths: Very social, has lots of friends, outgoing Weaknesses: Self-control with friends, keeping hands to himself. | Strengths: Very social and enjoys being with others Weaknesses: Impulse control, and "bugs" other kids at times. | Strengths: Very social and like to interact Weaknesses: impulsive |
| Does your student have behavior issues? (i.e. getting | Yes: Impulsive with body and mouth. Has a hard time | No: Lots of improvement! | No: Much, much better than the beginning of the |

| | | | |
|---|--|---|---|
| in trouble, not following directions, not following the rules). Elaborate. | sitting, waiting his turn and keeping hands off. | | year |
| From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior? | 2 | 4 | 3 |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 2 | 3 | 4 |
| How does the student interact with others in an academic setting? | Works better alone, he is a leader and he gets very defensive easily. He is distractible and distracts others. | He works well with others and receives support from his peers, which is helpful. In a group situation he is a follower and cooperative. | He works better alone. He is usually the leader in a social situation and a follower in an academic situation. He is cooperative. |
| How does the student interact with others in a social setting? | He plays in a group, he is cooperative but he has a hard time controlling his body and keeping hands off. | He loves to play with others and in physical activities. | He plays in a group and is cooperative. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | Huge improvement in all areas since the beginning of the year. | Huge improvement throughout the year in academics, behavior, and responsibility. |

Nature Journal Samples

Moorpark Zoo



||
did you know that
if alligators have there
upper teeth are going down
@ there bottom there.

Timbers can get
up to 6 feet
tall. but is in DANGER

buffalo is on your
PIZZA.

a mount lion can
break a person's bone.

MATES Garden

12

10-9-12

I am going to The mates.
Garden.

The weather is sunny

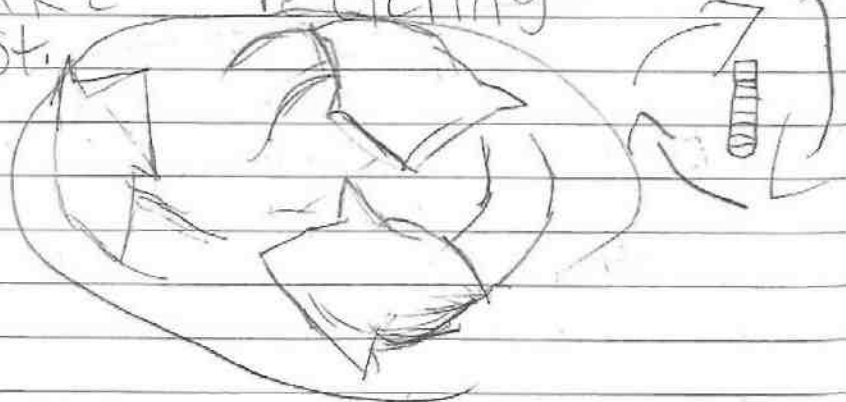


I think I will see trash
plants soil water

I think I am going to
do peck up trash

I think I will see
trash water.

make recycling
last.






13


10-9-12

Sustainability means to
last longer and protect
the environment.

Humans impact
their community when they
litter. They waste
electricity, water, cut
down trees,
pollute the air,
water, and
land and waste food.

turn off lights.  

 We want fresh air
Mates can have
a recycling programme.
Kid will know!

 What to recycle
because we will make
signs, set a good example
give a presentation
and make posters.

14

10-10-12

Yes, some of my
Predictions were correct.

I saw trash, water
plants. I got
to plant and it was fun.
I dug up roots.
Then I threw them in
the trash.

Yesterday I went to
the Mateo Garden
- I enjoyed it.

I learned that gardening
is fun.


I would rate
the trip a 5
because it was
fun to help the
school and the Earth.

Ramirez Mountain

43

Tomorrow, January 8, 2013 I am going to Ramirez Mountain.

Prediction: I think I am going to see
mountains and animals. I think I will
do it work

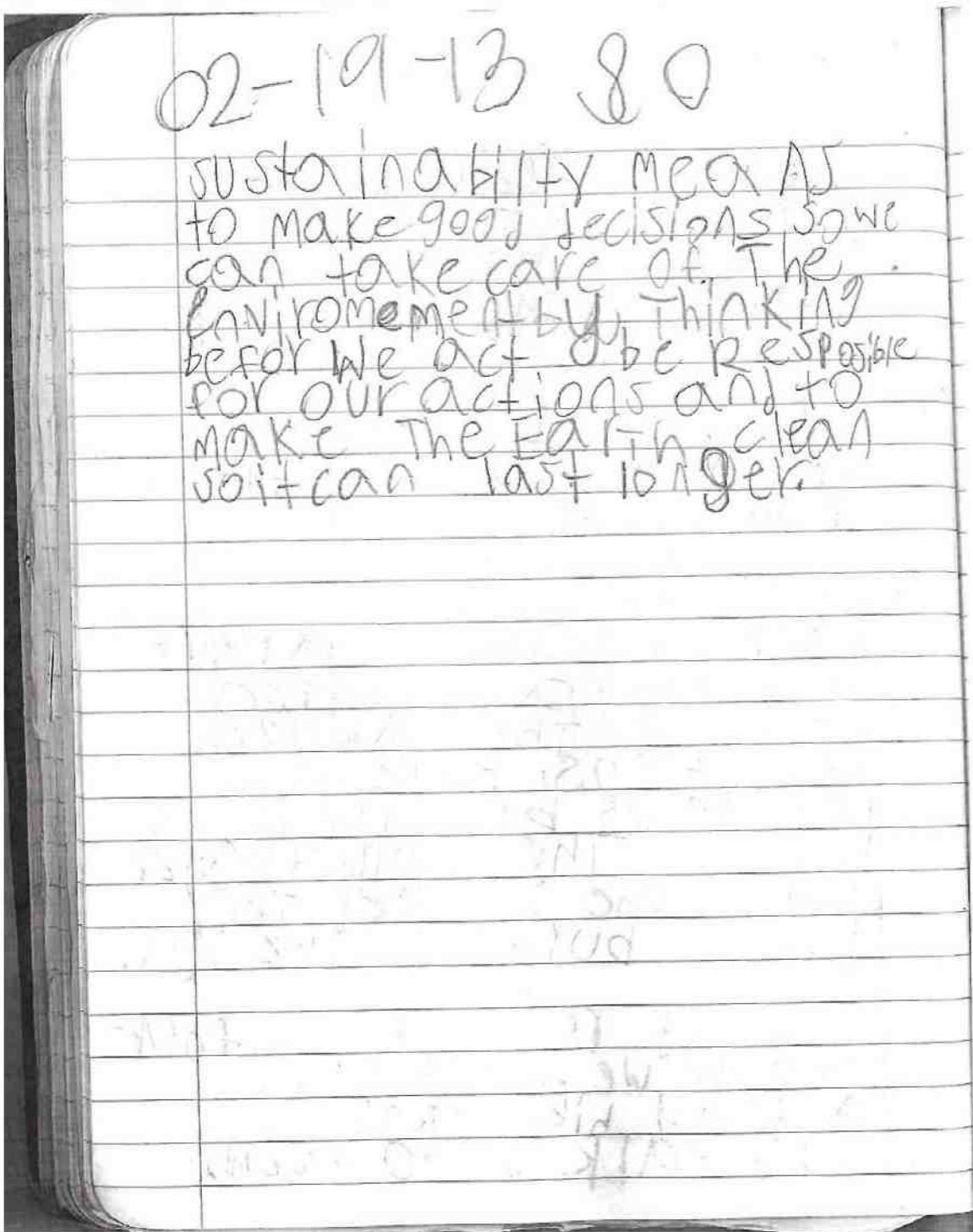
| | |
|--|---|
| Here is one fact I learned. | Here is one thing I did that I enjoyed. |
| chmush trated shells | Picking fruit. |
| A question I asked was... | This is the answer to my question. |
| What kind of tree is aibid | Sickamore tree |
| Here is one thing I wish we got to do more. | Here is a drawing of something I really enjoyed or learned about. |
| I wish I picked more grape fruit it was fun going up there |  river |

47

Ramirez mountain

was a great experience because we learned about nature and chumash, we picked grapefruit. It tasted sour because it was ripe, something else is I liked playing at lunch. We touched dead animal skins. Over all I had a great time and I could go again.

Three Essential Questions



82

Humans can have both a good and bad impact on their local community. For example, the amount of people can either increase or reduce the land, air, and water quality.

835

To make M.A.S. more sustainable we can collect recycling items, think before we act, grow more plants, and remind others about caring and protecting the environment.

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix H: Claire

- **IEP Goals & Progress**
- **Parent Questionnaire**
- **Final Parent Survey**
- **Teacher Questionnaire**
- **Nature Journal Samples**
- **Nature Project Picture**
- **Assessment of Change Toward Environmental Issues**

IEP Goals & Progress

| IEP Goal | Baseline | Midline | Final |
|--|---|--|---|
| <u>Communication Goal:</u> In the speech room, resource room and classroom, Claire will tell and/ or write a story including a main idea, five relevant details, and a closing sentence in 4 of 5 opportunities for 5 consecutive trials given 3 verbal/ visual prompts as measured by observation record. | New Goal—Skill recently introduced. | 60% accuracy with 3/5 consistency— Making progress. We are working on identifying the main idea and details of a paragraph. | 80% accuracy with 4/5 opportunities— Attained goal. |
| <u>Communication Goal:</u> In the speech room, resource and classroom, Claire will use sentence, word context clues, and knowledge of synonyms, antonyms, root words, prefixes, etc to explain meanings of unknown words with 80% correct for 4 out of 5 trials as measured by observation record. | New Goal—Skill recently introduced. | Working on prerequisite skills. | 70% accuracy with 4/5 trials—Making great progress. |
| <u>Writing Goal:</u> Given a written assignment, Claire will create a multi-paragraph expository composition that establishes a topic, key ideas, or events in sequence, provides details and transitional expressions with link paragraphs, and offers a concluding paragraph that summarizes the key ideas with 80% correct for a trimester as measured by work samples and observation record. | 65% accuracy in a trimester—Skill recently introduced. | 70% accuracy in a trimester—Making great progress. | 85% accuracy in a trimester—Attained goal. Made excellent progress in her writing. |
| <u>Reading Goal:</u> Given a graphic organizer, Claire will identify the main idea of the text and identify statements within that text, which support the main idea with 85% correct for a trimester as measured by work samples and observation record. | 75% accuracy per week—New goal but making progress. | 80% accuracy in a trimester—Making great progress. | 85% accuracy in a trimester—Attained goal and worked very hard. |

| | | | |
|---|--|--|--|
| <p><u>Mathematics Goal:</u> Given a chart or graph, Claire will use information from a graph or equation to answer questions about a problem situation with 85% correct for a trimester as measured by work samples and observation record.</p> | <p>65% accuracy in a trimester—Skill recently introduced.</p> | <p>80% accuracy in a trimester—Making great progress.</p> | <p>90% accuracy in a trimester—Exceeded goal.</p> |
| <p><u>Social/ Emotional Goal:</u> With modeled prompts, Claire will use the agreed-upon problem solving model independently to find appropriate solutions to a problem which she is personally involved in independently each opportunity as measured by observation record.</p> | <p>New Goal—Skills recently introduced.</p> | <p>60% accuracy independently—Making progress.</p> | <p>80% accuracy—Attained Goal Megan will independently find appropriate solutions. Great job.</p> |

Parent Questionnaire

| Question | Baseline Answer | Midline Answer | Final Answer |
|--|---|---|---|
| Does your child have any allergies? | No | No | No |
| Does your child have any physical limitations? | No | No | No |
| How much time does your child watch TV per week? | 4-6 hours: changes if bad weather, illness, holiday, etc. | 4-6 hours | 4-6 hours |
| How much time does your child spend on the computer per week? | 1-3 hours: at home, this does not include school | 4-6 hours: that includes school | 4-6 hours: this includes school work |
| How much time does your child spend playing video games on an ipod/ ipad, or any other electronic device per week? | 1-3 hours: not including school | 1-3 hours: that is not including school | 1-3 hours |
| Does your child participate in any outdoor activities outside of school? | Yes: Soccer, Summer-Swimming and Tennis | Yes: Soccer and Swimming | Yes: Soccer, Swimming, biking, tennis, hiking |
| How much time does your child spend having unstructured play? | 10+ hours | 1-3 hours daily so 10+ hours weekly | 10+ hours |
| Do you do any outdoor activities as a family? How much time do you spend doing this per week? | Yes: 7-9 hours during school. 10+ hours during summer | Yes: 4-6 hours while in school, 10+ hours in summer | Yes: 4-6 hours |
| From a scale from 1 to 5, 5 being the strongest, how would you rate your child's self-esteem in general? | (3) This is very difficult one. She is very confident in sports and with family and close friends, yet she is | Around family 5 Peers 2 | 4 |

| | | | |
|---|---|---|---|
| | shy around peers, at school and in public. | | |
| What are your child's academic strength's and weaknesses? | Strengths: Math Weaknesses: Comprehension & Vocabulary | Strengths: Math Weaknesses: Language and Comprehension | Strengths: Math Weaknesses: Reading and Comprehension |
| What are the child's social strengths and weaknesses? | Strengths: athletics and her art Weaknesses: communicating | Strengths: sports and making initial friends. Weaknesses: one to one, small groups, keeping friends long term, and communicating | Strengths: Caring, giving, fun Weaknesses: Sensitive, misunderstandings, communication is difficult sometimes |
| When doing homework on a scale from 1-5, 5 being completely focused 100% of the time, what would you rate your child's on-task behavior? | 4 | 4+ | 5 |
| How does your child interact with others in a social setting? (group or alone; cooperative or get frustrated easily; leader or follower) | Claire does well in playgroups but frustration grows. Other children may have trouble communicating with Claire and she misunderstands. | Claire prefers to play alone, she is cooperative with others and she is mostly a follower, unless when she is around family. Claire has a strong personality and likes to do certain activities, transferring or trying something new can be difficult. | If kids are around, Claire will join in, but she enjoys quiet play too. Claire is pretty easy going. She is a leader with younger children, but will follow around peers. |
| Does your child primarily play with children their same age or different age? | Mostly Younger Children | Younger Children | Younger Children |

| | | | |
|--|-----|---|---|
| Since the beginning of the Nature Trips, have you seen any differences in focus, self-esteem, enthusiasm for nature, or attitude toward school? | N/A | She has always loved nature. Attitude towards school has not changed. | This year has been better. She has always loved nature. She has enjoyed the nature trips and the resource projects. Claire still has a hard time outside the classroom, but has taken on a leadership role with the other resource kids (she is the oldest though). |
|--|-----|---|---|

Final Parent Survey

| Questions | Answers |
|---|---|
| How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/behavior, and (3) academics? | Being a 5 th grader and the oldest is a huge factor, but she has become more self-confident with the kids in resource and with some of her peers in class. Claire has always been a good student and hard working. Coming to school has been less difficult. |
| Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain. | Claire has always enjoyed nature. As a family, we do many things for the environment. She has gotten some new ideas and we are trying to implement them at home. |
| Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain. | Again we are an environmentally aware family, but she has learned some new ways to help more. |
| In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not. | Claire wants an electric car when she learns to drive. She wants to grow more fruit, vegetables, and herbs at home, which we are working on. She already gives her clothes and toys (unwanted or used) to cousins and charity. We live as green as possible at this time. |
| Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year? And additions/ subtractions? | I think the program is wonderful. I would like to see the whole school take on this program, perhaps spreading out the field trips to 2-3 each grade each year. Everyone would benefit from the program. My only concern was how much regular class Claire missed and class books she did not read. Missing class and instructions for an assignment was stressful for her. Anything missed in class, should be made up in resource. |

Teacher Questionnaire

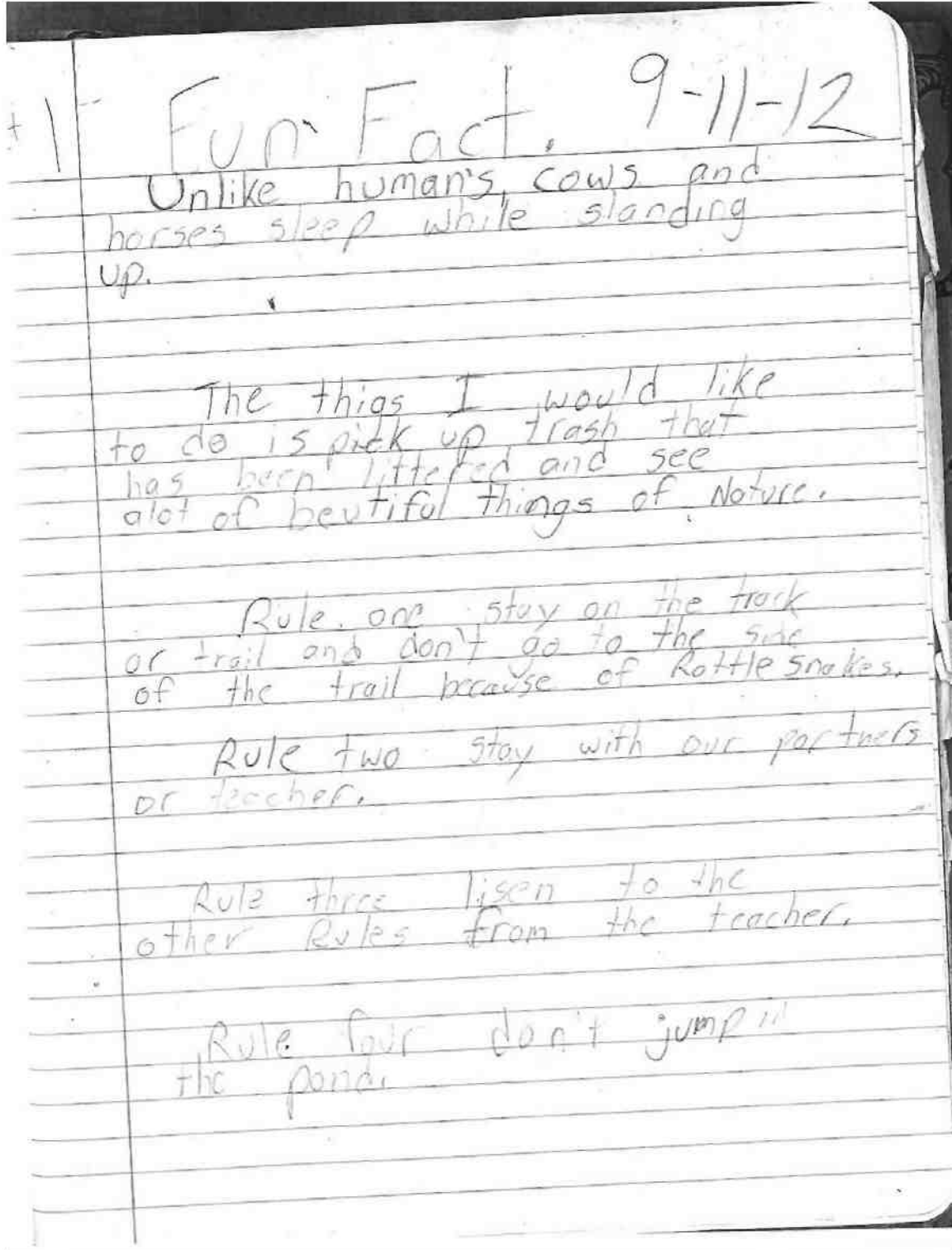
| Question | Baseline Answer | Midline Answer | Final Answer |
|--|---|--|---|
| What are the student's current grades? | Reading: Writing: Mathematics: A Science: A Social Studies: A | Reading: Writing: Mathematics: A- Science: A Social Studies: A- | Reading: Writing: Mathematics: B Science: A+ Social Studies: A |
| What strategies are being used to help this resource student succeed in the general education classroom? | <ul style="list-style-type: none"> • Graphic organizers • Small Group • Individual instruction • Schedule | <ul style="list-style-type: none"> • Schedules • Individual attention and instruction | <ul style="list-style-type: none"> • Study guides • Graphic organizers • Small group |
| From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem? | 4 | Between 2-3 | Between a 3-4: Getting better for sure |
| What are the student's academic strengths and weaknesses? | Strengths: Great effort, Math Weaknesses: Comprehension | Strengths: Math Weaknesses: Language Arts | Strengths: Math and Science Weaknesses: Reading |
| What are the student's social strengths and weaknesses? | Strengths: Communicates well with adults Weaknesses: Communication and interaction with peers | Strengths: Adult interactions Weaknesses: Peer interactions | Strengths: Kind and respectful Weaknesses: Playground cooperation |
| Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate. | No: Claire is very well behaved and respectful | No | No |
| From a scale from 1-5, 5 being completely on task | 4 | 4 | 5 |

| | | | |
|---|---|---|--|
| 100% of the time, what would you rate the student's on-task behavior? | | | |
| From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments? | 4 | 4 | 5 |
| How does the student interact with others in an academic setting? | She works better alone, she is primarily a follower and is cooperative. | She works better alone, she is a follower and can get frustrated easily with others. | She works better alone, she is a follower and is cooperative. |
| How does the student interact with others in a social setting? | She plays alone and is easily frustrated by others. | She plays alone and is frustrated easily with others. | She plays alone or dodge ball. At times her feelings can get hurt easily on the playground, but she has shown great improvements in this area. |
| Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature? | N/A | She seems very passionate about nature and recycling. She also seems calmed and less anxious about field trips. | Yes! Claire has grown so much. She is more independent and confident. She also has shown great interest in the nature trip content and often connects what she has learned on the trips to our classroom curriculum. |

Nature Journal Samples

Table of Contents

| <u>Table of Contents</u> | |
|---------------------------------|---------|
| Description | Pages |
| Mates / conejo creek north park | 1 - 8 |
| Moorpark Zoo | 9 |
| Mates Gardening | 10 - 12 |
| Tree People | 13 - 26 |
| Anacapa Island | 27 - 36 |
| Wild wood | 37 - 41 |
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| Sustainability / Paper making | 48 |
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| Sustainable Agriculture | 75 - 79 |
| Limoncira | 80 - 86 |
| | |
| | |
| | |
| | |
| | |

Conejo Creek North Park

#2
What is sustainability?

To Last.

How do humans have an impact on their local community?

How they feel by littering.
It's bad for the earth and it is bad.

x

113

What can we do to make MATES
more sustainable and have a
lower impact ~~on negative~~ impact on
the local community?

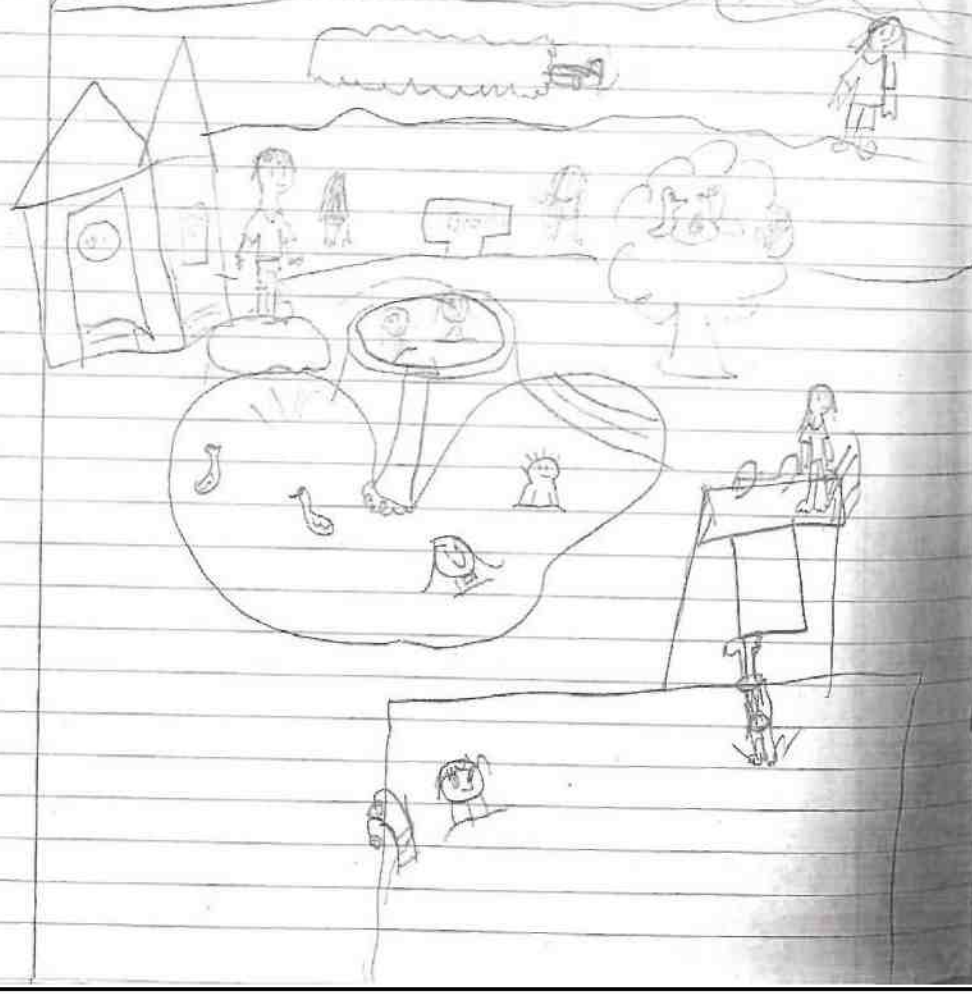
Recycle and pick up
trash and don't waste electricity
and water.

At Mates I heard
birds, Hawks, squirrels climbing
the branches and heard
the trees blow, planes, cars,
screaming and Mrs. Aragon talking
and Dragon Nys.

4

I smelled grass and dirt,

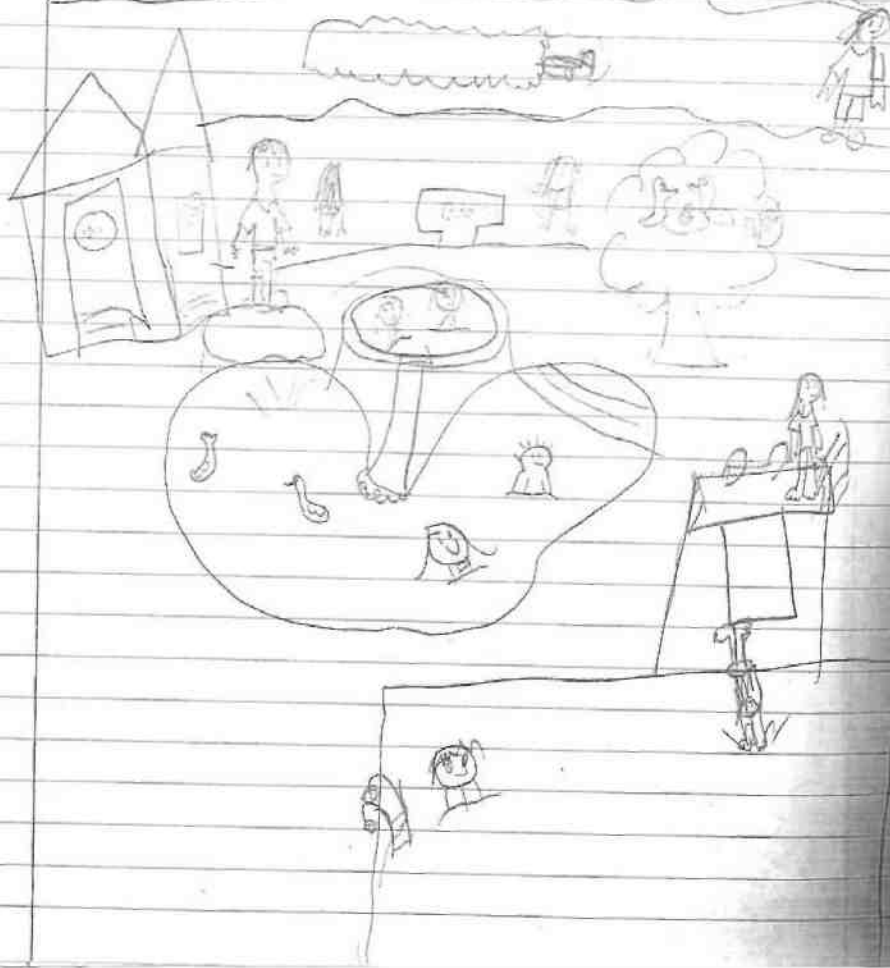
I felt sun on my head
I felt breeze, wind, tickle, my clothes
shoes, and my hair.



4

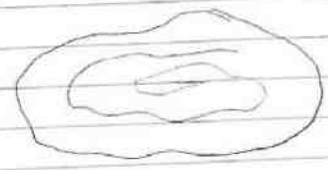
3. I smelled, grass and dirt,

I felt sun, the heat
I feel bugs, wind, itch, my clothes
shoes, and my hair.



5

Mud ↓



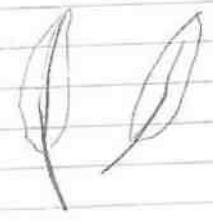
Glass ↓



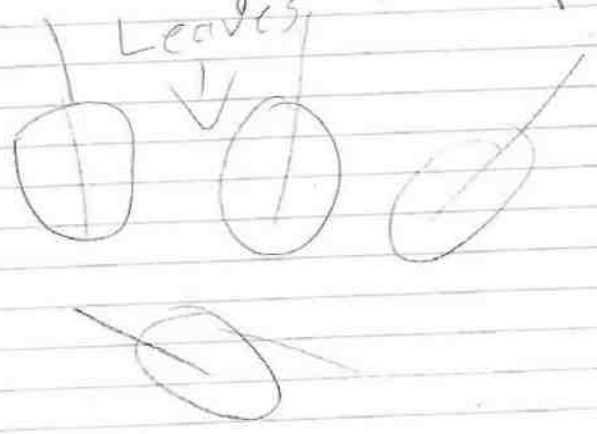
Twigs ↓



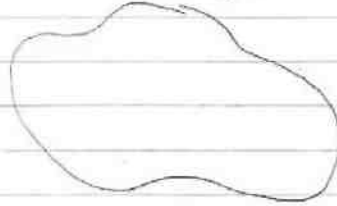
Feathers



Leaves ↓

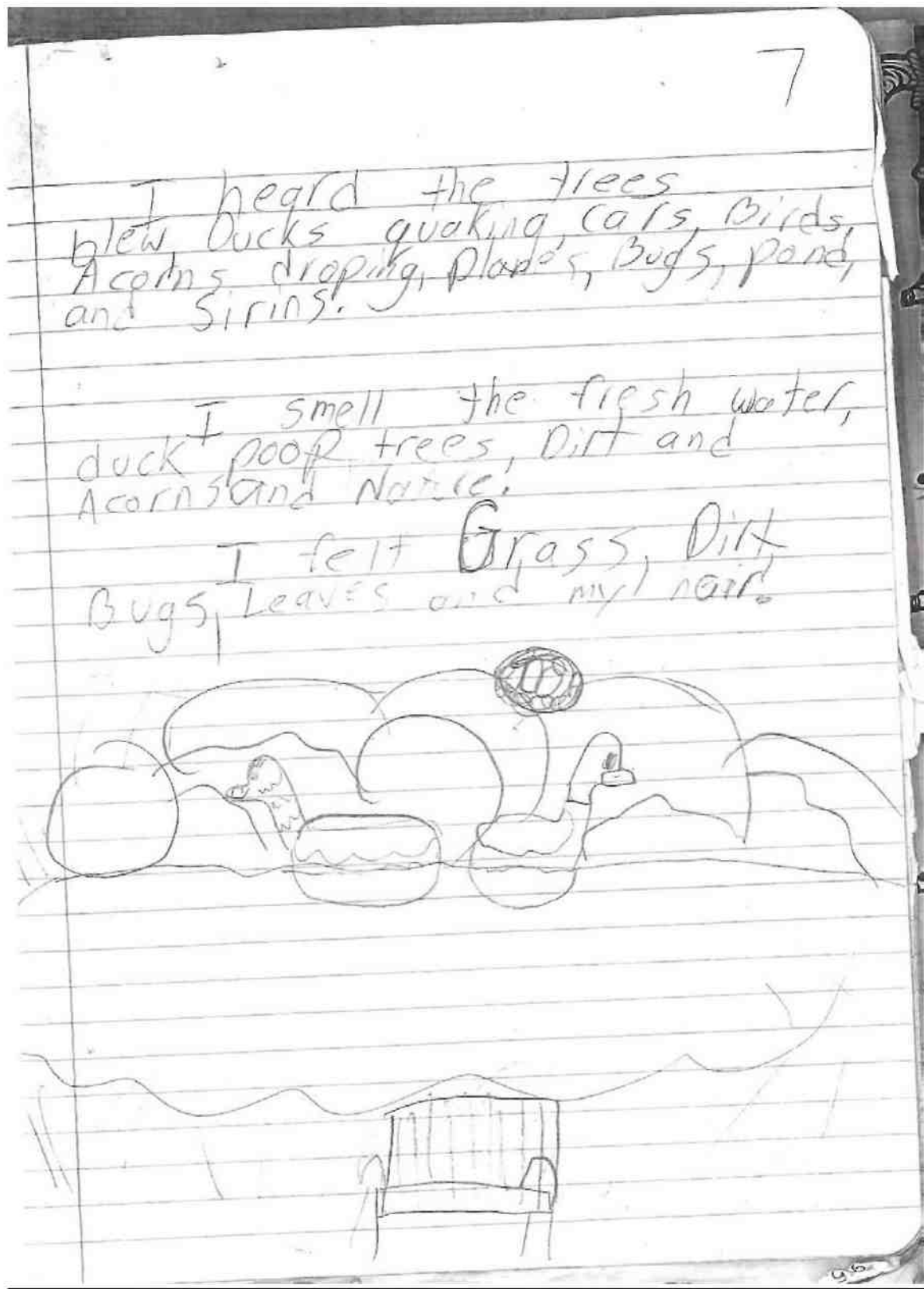


6
Smooth
Stone



The favorite

thing I found was
the thing that is beautiful
It was a flower because
it is beautiful a Nature's
Beautiful thing.



9/12/12 Nature Journal Reflection 9

Yesterday, I went to the
field at the Conejo North creek
park. One thing I learned was that
it is not good for the Earth to
pick up litter that is on the
floor. One thing I wish we could have
done more with, fishing in the park
and go to the river and get well
and also do more of our cave gear
hunt. I hope to go back to
to the park.

TreePeople

43


Nature Journal Set-up.

Today's Date: October 23, 2012

Nature Trip's Dates: October 30, 2012

Where are you going: I am going to tree people.

Weather:



Prediction: At Tree people I think I am going to do a lot of picking up trash. I think I will see plants, birds, and a lot of trees.

* At tree people, I think I am going to pick up trash and recycle.

* At tree people, I think I am going to see a lot of trees, animals, and streams.

Seed stations.

14

What do you know about seeds?

They plant plants
it makes roots
out of the ground

Draw a picture of what you did.



What do you want to know about seeds?
Seeds are types of seeds that grow food plants and trees, and I want to know how they grow roots.

What did you learn about seeds?

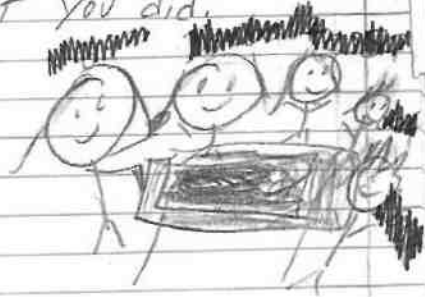
The root comes out the seed then comes out.

Soil station

15

What do you know about soil.
Soil helps plants grow and live.

Draw picture of what you did.



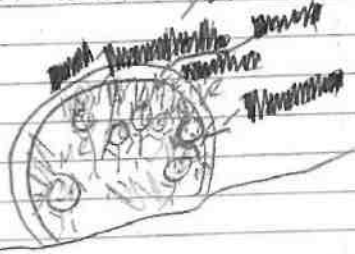
What do you want to know about soil?
Why do they help plants grow.

What did you learn about soil.
Soil = food helps plants grow

Water Station 17

What do you know about water?
 Water flows on earth,
 Animals, plants, and people drink it. Fish swim in water to survive, fish can't live out the water because fish can't breath.

Draw a picture of what you did.



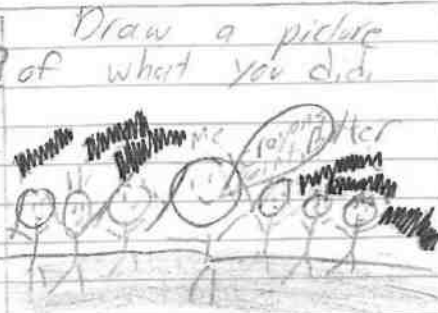
What do you want to know about water?
 Why does water dry out in a stream and how does the water come back.

What did you learn about water?
 The Heat of the sun dries it, called evaporation then it comes back. We want water to come back.

Resource station.

18

What do you know about recycling?
 Recycle in is to pick up paper, plastic, glass and Metal, as you can reuse it.



What do you want to know about recycling?
 What kinds of things are made with recycled items.

What did you learn about recycling, Trees, and plants.

- ① Reduce, Those
 - ② Reuse, things mean
 - ③ Recycle, you can
- Reuse instead of throwing it away.

19

Three leaves let it be.

Reduce CO₂

Water

Types of plants

- ① Bolivian rainbow cante.
- ② 400 Italian pine trees.
- ③ California sagebrush
- ④ Humming bird sage
- ⑤ Giant coreopsis
- ⑥ Coastal sagebrush
- ⑦ sage plants
- ⑧ Red bud
- ⑨ Fruit trees
- ⑩ orange trees } continue

types of plants 20

⑪ Avocado tree

⑫ Avocado

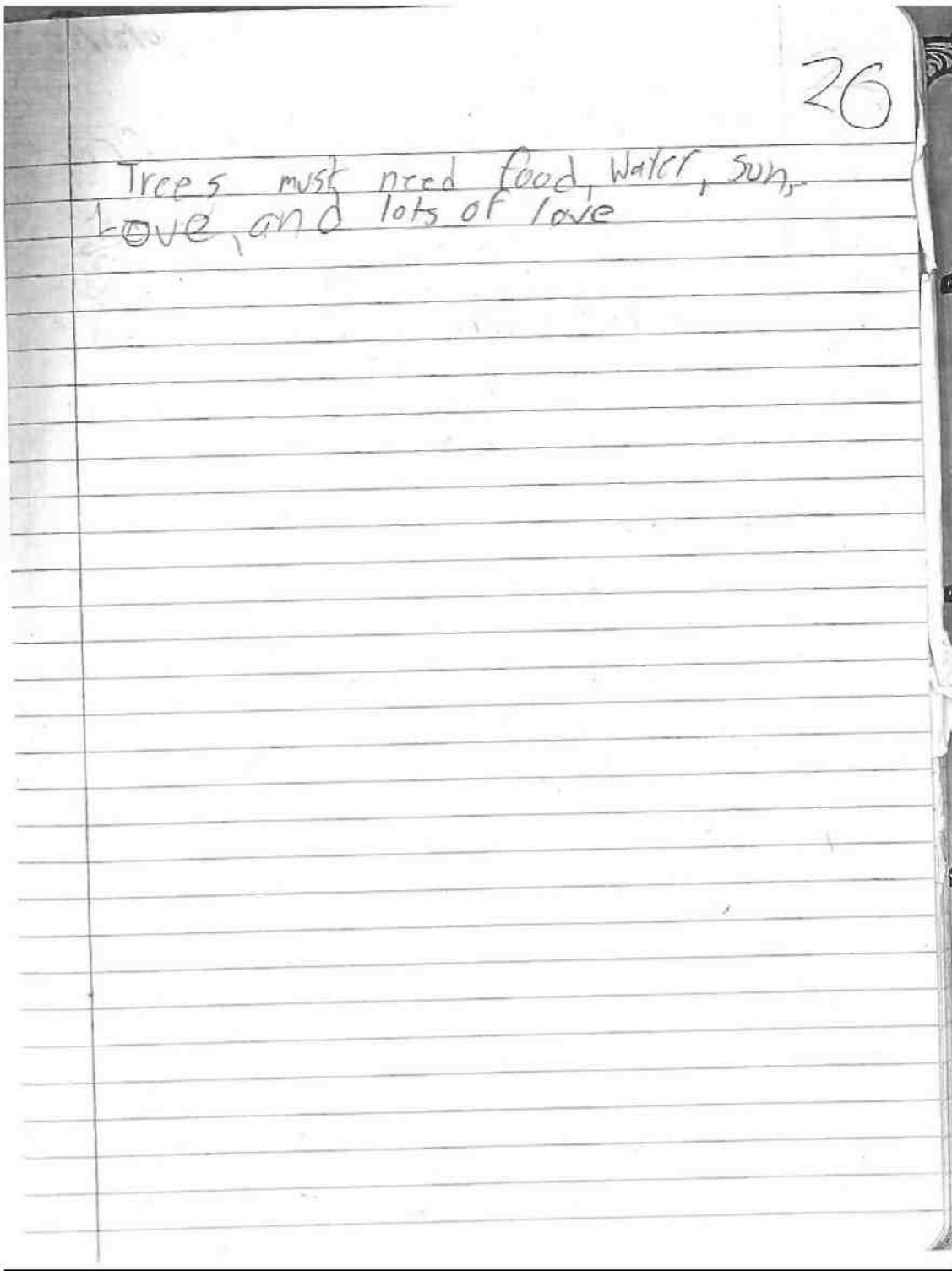
⑬ Grape fruit

⑭ Humming bird

⑮ Lemon

⑯ Banana trees

1. 2. 3.



26
Trees must need food, water, sun,
love, and lots of love

10/31/12

21

Nature Journal Confirmations

No my prediction was not correct, but we learned about water, plants, and soil. First soil helps plants grow and we feed it water to grow. Then when people breathe in oxygen then when people breathe out its called Carbon dioxide.

Reflection

* Yesterday, I went to Tree People. I enjoyed the water station because I liked the tunnels and we got wet. the sewer and goes out to the ocean.

* I learned about where water goes & we learned how soil helps plants grow.

* I would rate the trip 5 because I love the stations and the view of the valley I loved this trip.

22

First I liked to go to see the view of the valley. Second I liked to go to the water station and get wet, that was my favorite thing during the field trip. Then I liked the seed station and see all of the pretty plants. Next I liked when we planted a Chinese pine tree at soil station. Finally I liked when Elliot did a science show.

Nature Project Picture



Assessment of Change Toward Environmental Issues

| | Level 1 | Level 2 | Level 3 | Level 4 |
|---|---|---|---|---|
| Demonstrates a change in attitude toward an environmental issue by actions taken | Rarely demonstrates changes from previous attitude through behavior or opinion | Sometimes demonstrates changes from previous attitude through behavior or opinion | Almost always demonstrates a change in attitude through behavior or opinion | Consistently demonstrates new attitude through behavior or opinion |
| Articulates a change in attitude. | Rarely acknowledges a change in attitude | Sometimes acknowledges a change in attitude | Almost always acknowledges a change in attitude | Consistently voices the changed attitude |
| Identifies new information which has influenced a change in attitude | Can cite new facts which would change the original beliefs or attitude | Can cite several facts which would change the original belief or attitude | Can compare some new and old facts which cause a change in attitude | Evaluates new and old facts which cause a change in attitude |
| Integrates new attitude into overall lifestyle. | Hold new attitudes separate from existing behavior. Does not extend action beyond site of the example | Sometimes demonstrates the new attitude in other situations | Demonstrates the new attitude in almost all situations | Consistently demonstrates the new attitude in all situations |
| Extends attitude in dealing with others. | Seldom discusses the new attitude with others. Does not offer opinions | Sometimes discusses the new attitude or offers options | Usually shows willingness to defend or share new attitude with others | Attempts to influence others by demonstrating the new attitude |

Appendix I: Nature Trip Lesson Plan Samples

- **All Nature Trips Lesson Plan Format**
- **Conejo Creek North Park**
- **Moorpark Zoo**
- **TreePeople**
- **Anacapa Island**
- **Wildwood Park**
- **Ramirez Mountain Outreach Program**
- **William O. Douglas Outdoor School**
- **Limoneira**
- **Arroyo Verde Park**

All Nature Trips Lesson Plan Format

Nature Journal Set-Up

This is the basic Nature Journal Set-Up for all students and every trip. Additional focus points or charts are outlined below in their specific Nature Trip Lesson Plan sections.

Students were asked to write in their Nature Journal and address the following questions prior to the Nature Trip:

- Today's Date:
- Nature Trip's Date:
- Where are you going?
- Weather: Cut and Paste today's weather in your book and write what kind of clothes you will need to wear today.
- Prediction: What do you think you will do at (Nature Trip Site)? What do you think you will see?
 - At (Nature Trip Site), I think I am going to....
 - At (Nature Trip Site), I think I am going to see...

Create a table:

| | |
|--|--------------------------------------|
| What animals, trees, or plants did you see today? | What sounds caught your ear? |
| Draw a plant you learned about. Label it. | What smells caught your nose? |

Nature Journal Confirmations

Students were asked to reflect on their Nature Trip experience. They addressed the following questions:

- Before you went on the Nature Trip you predicted what you were going to do and see. Were you right or were you surprised by what you did and saw?
 - Yes, my predictions were correct. On the nature trip we did... and saw...
 - No, my predictions were not correct. I was surprised and did... and saw...
- What parts of the trip did you enjoy?
 - Yesterday, I went to (Nature Trip Site). I enjoyed...
- What did you learn?
 - I learned ...
- If you could rate the trip from 5 being the best nature trip ever to 0 being the worst trip, what would you rate the trip and why?
 - I would rate the trip (5 4 3 2 1 0) because...

Conejo Creek North Park

1. On the initial Nature Trip students established basic rules to follow during the trips. Students generated the rules in a group and then shared with the whole group. We discussed the most important ones to them.
2. Safety tips were reviewed.
3. The three essential questions were introduced. Students came up individually with an answer first, then we discussed whole group. We agreed on a definition/ answer for each question.
4. Equipment to bring and to leave home during the trips.

Moorpark Zoo

1. **Focus Questions** were given out randomly to each student. A focus question is a question the student will specifically focus on during the nature trip to further his/her learning. For the Moorpark Zoo, the Focus Questions were as follows:
 - a. Would you like to live in a zoo and be the zookeeper? Why or why not?
 - b. How do humans have an impact on the zoo animals? Is it positive or negative?
 - c. What was your favorite animal that you saw? Why?
 - d. What is an unanswered question you might have? Explain.
 - e. Would you like to work at the zoo? What kind of job would you want?
 - f. Did you discover anything new about your experience at the zoo? Explain.
 - g. What is the importance of going to the zoo? What did Mrs. Aragon want you to learn?
 - h. What did you learn about animals after you watched the show?

TreePeople

**Students visited five different stations (Seed, Soil, Air, Water, and Resource).
For this nature trip they had to create five different charts. Each chart was
essentially the same:**

| | |
|--|--|
| What do you know about (<i>seeds, soil, air, water, resource</i>)? | Draw a picture of what you did at the station. |
| What do you want to know about (<i>seeds, soil, air, water, resource</i>)? | What did you learn about (<i>seeds, soil, air, water, resource</i>)? |

During TreePeople, students also recorded types of plants they learned about.

Anacapa Island

Glued in information:

- Map of Anacapa Island
- Parts of a Whale
- Dolphin vs. Porpoise
- Sea Lions vs. Seals
- Water Shed Diagram

Charts they filled out prior, during, and after the trip:

| | |
|---|--|
| These are some facts I know about Anacapa Island. | This is one thing I want to know about Anacapa Island. |
| This is one thing I learned about Anacapa Island. | This is what Anacapa Island looks like. |

| | |
|---|--|
| This is what I know about ice plants. | This is one thing I want to know about ice plants. |
| This is one thing I learned about ice plants. | This is what an ice plant looks like. |

Students were asked to record what they saw and were given a list of animals and plants they might see.

What did I See?

Cetaceans

- Whale
- Dolphin
- Porpoise
- Pinnipeds
- Sea Lions
- Seals

Endemic Animals

- Xantus's Murrelet

- Ashy Storm Petrel
- Brown Pelican

Other Animals

- Seagulls
- Lizards
- _____

Plants

- Ice-plants
- _____

Wildwood Park

An additional chart:

| | |
|--|--|
| <p>Draw a picture of something you saw.</p> | <p>What is one thing you learned about Wildwood's history?</p> |
| <p>1 Kilometer = 0.6 miles 1 Meter = 1.0936 yards Meters to Yards = multiply by 1.0936 Meters to Miles = multiply by .0006214 Kilometers to Meters = multiply by 1000 Kilometers to Miles = multiply by 0.6</p> | <p>How far did we hike?</p> <hr/> <p><u>Convert into:</u> Meters: Yards: Kilometers: Miles:</p> |

Ramirez Mountain Outreach Program**An additional chart:**

| | |
|---|---|
| Here is one fact I learned. | Here is one thing I did that I enjoyed. |
| A question I asked was... | This is the answer to my question. |
| Here is one thing I wish we got to do more. | Here is a drawing of something I really enjoyed or learned about. |

Other activities that were added after the trip:

- Match the footprints with the correct animal print.
- Matching game: Items used by Native Southern Californians 200 years ago with their present day counterparts.
- Glued information in about the Chumash Indians

William O. Douglas Outdoor School**Glued in information prior to the trip:**

- Safety Tips
- Natural Resources
- Cultural Resources
- Chaparral Wildlife Guide
- Wildlife in the LA Mountains
- Wildflowers
- Nature Checklist

Focus Questions were given randomly to each student:

- How did we impact William O. Douglas? Was it positive or negative? Explain.
- What things would you have to know to be a guide? Would you ever want to be one?
- Name 3 animals you saw. Are they unique to the area? Why or why not? Tell me where you saw the animals.
- Name and draw 2 native plants you saw. Ask the guide a question about them. Record your answer.
- What is sustainable about William O. Douglas?
- How could you help others to make responsible choices about what they do at William O. Douglas?

- What do you think it is like to be a guide and talk to kids about William O. Douglas?
- Who is William O. Douglas?

Limoneira

Glued documents prior to the trip:

- Our Daily Bread
- Show-Me Sustainable Agriculture

After Limoneira Speaker, students created a word bank of words they learned and heard.

- Word Bank
- Write down 3 things I learned from the presentation.
- Write down 2 questions I have after listening to the presentation.
- Write down 1 thing I think I am going to do at Limoneira.

Journal Set-Up:

- Write the steps on how a lemon travels to your plate
- Tools that are used to harvest a lemon
- Basic Facts you learned

Arroyo Verde

Created the table of contents for their Nature Journal. Students studied the information in it to be prepared for the information scavenger hunt.

Appendix J: Culminating Nature Fair Project and Speech

- **Information Template**
- **Speech Template**

Information Template

Nature Fair Project

Objective: To demonstrate your knowledge and experience of one of the Nature Trips.

Due Date: Tuesday, April 23, 2013

My project will be on: _____

Due Dates:

January 22: Project introduced & directions given

February 1: Outline of project due

February 19: Rough draft of all questions items

March 8: All sections typed; begin speech

March 19: Assemble 3-folded board; continue to practice speech

April 12: Visual element; practice speech

April 23: All parts due & brought to school/ practice presentation in class

Materials:

- 3 fold board
- Visual/ physical item
- Pictures

You MUST include the following information in your project:

- 1) Where did you go?
- 2) A map of the place
- 3) When did you go?
- 4) What did you do?
- 5) What did you learn? Was there a favorite part of the trip that you enjoyed the most?
- 6) Define sustainability in your own words.
- 7) How does the nature trip relate to sustainability?
- 8) How do humans have an impact on their local community in relation to your nature trip?
- 9) Pictures with captions
- 10) Interesting Facts
- 11) A visual or physical object that relates to the trip or about what you learned about.
- 12) Conclusions about the nature trips in general. What have you learned about your environment and why it is important that you care about it?

Speech Template**Speech Outline**

Your speech should be 3-5 minutes long. You need to tell people about your board.

You may choose to memorize it or use 3x5 flash cards.

Questions to guide your speech:

1. Where did you go?
2. What did you do?
3. What did you learn?
4. Can you name 2-4 Fun Facts about the place you went?
5. How can people help sustain the environment in relation to your project topic?
6. Tell about your physical object.
7. Anything else that you want to tell people about.

Appendix K: California's Common Core Content Standards

- **Second Grade**
- **Third Grade**
- **Fourth Grade**
- **Fifth Grade**

Second Grade

| California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects: <u>Second Grade</u> | | | | | | | | | |
|---|----------------------------------|--|--|---|---------|-------------------------------------|---------|---------------------------------|------|
| | Reading Standards for Literature | Reading Standards for Informational Text | Reading Standards: Foundational Skills | Writing Standards | | Speaking & Listening | | Language Standards | |
| Key Ideas and Details | 1, 2, 3 | 1, 2 | | Text Types and Purposes | 1, 2, 3 | Comprehension and Collaboration | 1, 2, 3 | Conventions of Standard English | 1, 2 |
| Craft and Structure | 4, 5, 6 | □ | | Production and Distribution of Writing | 4, 5, 6 | | | Knowledge of Language | 3 |
| Integration of Knowledge and Ideas | 7 | 7 | | Research to Build and Present Knowledge | 7, 8 | Presentation of Knowledge and Ideas | 4, 6 | Vocabulary Acquisition and Use | 5, 6 |
| Range of Reading and Level of Text Complexity | | | | Range of Writing | 10 | | | | |

Third Grade

| California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects: <u>Third Grade</u> | | | | | | | | | |
|---|----------------------------------|--|--|---|---------|-------------------------------------|---------|---------------------------------|------|
| | Reading Standards for Literature | Reading Standards for Informational Text | Reading Standards: Foundational Skills | Writing Standards | | Speaking & Listening | | Language Standards | |
| Key Ideas and Details | 1, 2, 3 | 1, 2 | | Text Types and Purposes | 1, 2, 3 | Comprehension and Collaboration | 1, 2, 3 | Conventions of Standard English | 1, 2 |
| Craft and Structure | 4, 6 | 6 | | Production and Distribution of Writing | 4, 5, 6 | | | Knowledge of Language | 3 |
| Integration of Knowledge and Ideas | | 7 | | Research to Build and Present Knowledge | 7, 8 | Presentation of Knowledge and Ideas | 4, 6 | Vocabulary Acquisition and Use | 5, 6 |
| Range of Reading and Level of Text Complexity | | | | Range of Writing | | | | | |

Fourth Grade

| California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects: <u>Fourth Grade</u> | | | | | | | | | |
|--|----------------------------------|--|--|---|---------|-------------------------------------|---------|---------------------------------|------|
| | Reading Standards for Literature | Reading Standards for Informational Text | Reading Standards: Foundational Skills | Writing Standards | | Speaking & Listening | | Language Standards | |
| Key Ideas and Details | 1, 2, 3 | 1, 2 | | Text Types and Purposes | 1, 2, 3 | Comprehension and Collaboration | 1, 2, 3 | Conventions of Standard English | 1, 2 |
| Craft and Structure | 4 | | | Production and Distribution of Writing | 4, 5, 6 | | | Knowledge of Language | 3 |
| Integration of Knowledge and Ideas | | 7 | | Research to Build and Present Knowledge | 7, 8 | Presentation of Knowledge and Ideas | 4 | Vocabulary Acquisition and Use | 5, 6 |
| Range of Reading and Level of Text Complexity | | | | Range of Writing | | | | | |

Fifth Grade

| California's Common Core Content Standards for English Language Arts & Literacy in History/ Social Studies, Science and Technical Subjects: <u>Fifth Grade</u> | | | | | | | | | |
|---|----------------------------------|--|--|---|---------|-------------------------------------|---------|---------------------------------|------|
| | Reading Standards for Literature | Reading Standards for Informational Text | Reading Standards: Foundational Skills | Writing Standards | | Speaking & Listening | | Language Standards | |
| Key Ideas and Details | 1, 2, 3 | 1, 2 | | Text Types and Purposes | 1, 2, 3 | Comprehension and Collaboration | 1, 2, 3 | Conventions of Standard English | 1, 2 |
| Craft and Structure | 4, 6 | | | Production and Distribution of Writing | 4, 5, 6 | | | Knowledge of Language | 3 |
| Integration of Knowledge and Ideas | | 7 | | Research to Build and Present Knowledge | 7, 8 | Presentation of Knowledge and Ideas | 4 | Vocabulary Acquisition and Use | 5, 6 |
| Range of Reading and Level of Text Complexity | | | | Range of Writing | | | | | |

Appendix L: Parent Packet

- **Parent Informed Consent Form for Minors**
- **Video and Photo Release Form**
- **Parent Questionnaire**
- **Final Parent Survey**

Parent Consent



Parental Informed Consent Form for Minors

I, Mrs. Amanda Aragon, a Masters in Special Education Student at California State University Channel Islands want to learn about how outdoor activities help students with learning disabilities improve their self-esteem, attitude/ behavior, and academics.

As a parent of a child who qualifies for resource services, I am interested in inviting you to participate in this study. This study has two components a parental component that focuses on collecting your perceptions about your child's self-esteem through a Parent Questionnaire and a student component, which is based on your child's participation in the Outdoor Education Program. Student participation includes off campus trips to a natural environment such as Anacapa Island, Wildwood Park, and the Moorpark Zoo. Some trips will be within walking distance of the school, while others chaperones will be needed to drive. Students will explore and observe their surroundings while making notes in their nature journal. There will be approximately 15 nature trips throughout the school year and each will last 4-5 hours. Additionally, I will be working with your child's general education teacher to track classroom changes in behavior and academics. Lastly, with your permission, I will obtain both this year and last year's academic and behavior information about your child from his/ her student records, current teacher and their Individual Education Plan (IEP).

Any vital information that results from this study will be shared with your child's teacher and you (at parent teacher conferences, IEP meetings, written format, or at the end of the study. All information and data collected for this study will be stored for 5 years and will only be accessible by me. Data collected electronically will be stored in a password-protected file. Hardcopy data will be kept in a locked file cabinet at my home.

Risks and Benefits: There are minimal risks to this study. Students will be prepped prior to the trip on any specific safety procedures or precautions, notes will be sent home to notify you as the parent any risks for each specific trip, chaperones will all be fingerprinted and on-file with MATES Charter, and students will always be supervised. No identifying information such as the name of your child or family will be used if I publish the results from this study. If you do decide to participate in this study, you and your child could help build a new curriculum and resource program for MATES Charter.

If you consent to the study, I will mail home a Parent Questionnaire for you. . The Parent Questionnaire should take no longer than 5 minutes to complete. Please return it to Mrs. Aragon's box by **DATE**.

You and your child's participation in this study are completely voluntary. Refusal to participate will involve no penalty or loss of benefits to which your child is otherwise entitled and you may discontinue your participation and your child's participation at any time. Your decision about participation in this study will not have any influence on your future relations with your child's school or teachers or with CSU Channel Islands.

If you have any questions about this study please call Amanda Aragon at PHONE or email me at [EMAIL](#). Questions or problems about your rights in this research study can be directed to the CSU Channel Islands Institutional Review Board at irb@csuci.edu or you may call 805-437-8495.

PLEASE KEEP THIS COPY FOR YOUR RECORDS.

**Please sign below and return this form to your child's resource teacher.
Thank you.**

I AM MAKING A DECISION WHETHER OR NOT TO PARTICIPATE WITH MY CHILD IN THIS STUDY. MY SIGNATURE INDICATES THAT I HAVE DECIDED TO PARTICIPATE HAVING READ THE INFORMATION PROVIDED ABOVE.

- Yes, I AGREE to participate in this study and give permission for my child to participate.
- No, I do NOT AGREE to participate in this study nor do not give permission for my child to participate.

Parent or Guardian Signature

Date

Print Your Child's Full Name

Your Child's Birth Date: ____/____/____

Signature of Researcher

Date

Video and Photo Release**Video and Photo Release Form**

Research Project Title: Nature and Outdoor Education

Principle Investigator's Name: Amanda Aragon

As part of this project, we will be taking videotape recordings and photographs. Please initial in the spaces below what uses of this media you consent to, and sign at the end of the release form. Video and photos will only be used in the ways you consent to. Your name will not be identified in these photos.

1. _____ Video/ Photographs can be reviewed by the research team.
 2. _____ Video/ Photographs can be used for project illustration.
 3. _____ Video/ Photographs can be used for promotional materials, such as brochures or fliers.
 4. _____ Video/ Photographs can be used for classroom presentations and in a formal presentation to CSUCI.
 5. _____ Video/ Photographs can be used for academic conference presentations.
 6. _____ Video/ Photographs can be used for fundraising presentations/proposals.
 7. _____ Video/ Photographs can be posted to a website.
- Yes, my child can be BOTH photographed and videotaped as a part of this study.
 No, I do not wish for my child to be photographed as a part of this study.
 No, I do not wish for my child to be videotaped as a part of this study.

Study Participant's Name

Parent Signature

Date

Parent Questionnaire



Research Project Title: Nature and Outdoor Education

1. **Principle Investigator's Name:** Amanda Aragon

Child's Name: _____

Date: _____

Please fill out the following questionnaire about your child and return it to Mrs. Aragon's box by **DATE**.

Thank you for your assistance,
Mrs Aragon

1. Does your child have any allergies?

a. _____

2. Does your child have any physical limitations?

a. _____

3. How much time does your child watch TV per week?

a. 1-3 hours 4-6 hours 7-9 hours 10+

4. How much time does your child spend on the computer per week?

a. 1-3 hours 4-6 hours 7-9 hours 10+

5. How much time does your child spend playing video games, on an ipod/ ipad, or any other electronic device per week?

- a. 1-3 hours 4-6 hours 7-9 hours 10+

6. Does your child participate in any outdoor activities outside of school? If so, please explain.

- a. Yes No

b. _____

7. How much time does your child spend having *unstructured play*?

(Unstructured play is that set of activities that children create on their own without adult guidance.)

- a. 1-3 hours 4-6 hours 7-9 hours 10+

8. Do you do any outdoor activities as a family? (i.e. hiking, going to the beach, playing in the park, etc.) How much time do you spend doing this per week?

- a. Yes No

- b. 1-3 hours 4-6 hours 7-9 hours 10+

9. From a scale from 1-5, 5 being the strongest, how would you rate the child's self-esteem in general?

- a. 1 2 3 4 5

10. What are the child's academic strengths and weaknesses?

- a. **Strengths:**

- b. **Weaknesses:**

11. What are the child's social strengths and weaknesses?

a. **Strengths:**

b. **Weaknesses:**

12. When doing homework, from a scale from 1-5, 5 being completely focused

100% of the time, what would you rate your child's on-task behavior?

a. 1 2 3 4 5

13. How does your child interact with others in a social setting?

a. **Do they prefer to play with a group or alone?**

b. **Are they cooperative or do they get frustrated easily with others?**

c. **Are they primarily the leader or the follower?**

d. _____

14. Does your child primarily play with children their same age or different age?

a. Younger Children Same Age Older Children

15. Since the beginning of the Nature Trips, have you seen any differences in

focus, self-esteem, enthusiasm for nature, or attitude toward school? Please

Explain.

a. _____

Final Parent Survey

Evaluation of the Program

Please fill out the Final Parent Survey to help evaluate the program.

Thank you!

1. How did Environment-Based-Education and the natural outdoors helped improve your child's (1) self-esteem, (2) attitude/ behavior, and (3) academics?
2. Outside of school, have you noticed if your child has had an increased awareness of nature? Please explain.
3. Have you noticed an increased awareness of your child's knowledge of sustainability? Please explain.
4. In regards to how humans impact their local community, has your child and/ or your family made any changes due to new knowledge that has been gained during the Nature Trips? Please elaborate why or why not.
5. Final thoughts about the Nature Trips and/ or Environment-Based-Education program and if offered, would you want your child to participate in it next year?

Appendix M: Teacher Packet

- **Teacher Consent Form**
- **Teacher Questionnaire**

Teacher Consent Form

Teacher Consent Form

I, Mrs Amanda Aragon, a Masters in Special Education Student at California State University Channel Islands want to learn about how outdoor activities help students with learning disabilities improve their self-esteem, attitude/ behavior, and academics. Students will be taken off campus to a natural environment to explore and observe their surroundings.

In order for me to gather the data I am seeking, I am asking for your voluntary participation in this study. Parental permission to access student record data, specifically student grades and class performance information, was obtained for all students participating in the study. Your voluntary participation in this study includes completion of a 5 minute Teacher Questionnaire and a monthly verbal update on academic and behavior status of student participating in this study.

All information and data collected for this study will be stored for 5 years and will only be accessible by me. Data collected electronically will be stored in a password-protected file. Hardcopy data will be kept in a locked file cabinet at my home.

No identifying information about you or the name of your student will be used if I publish the results from this study.

Risks and Benefits: The short time commitment can be somewhat of an inconvenience, but present no risk to the participant. The benefits of your participation will help develop a stronger curriculum and resource program at MATES Charter.

If you consent to the study, I will be leaving the Teacher Questionnaire in your box for you to fill out. Please return it to Mrs Aragon's box by, **DATE**. Your participation in this study is completely voluntary and you may decide not to participate in this study at any time.

Your participation in this study is completely voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue your participation at any time. Your decision about participation in this study will not have any influence on your future relations with MATES Charter or with CSU Channel Islands.

If you have any questions about this study please call Amanda Aragon at PHONE or email me at [EMAIL](#). Questions or problems about your rights in this research study can be directed to the CSU Channel Islands Institutional Review Board at irb@csuci.edu or you may call 805-437-8495.

PLEASE KEEP THIS COPY FOR YOUR RECORDS.

**Please sign below and return this form to your child's resource teacher.
Thank you.**

I AM MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN THIS STUDY.
MY SIGNATURE INDICATES THAT I HAVE DECIDED TO PARTICIPATE HAVING
READ THE INFORMATION PROVIDED ABOVE.

- Yes, I will participate in this study.
- No, I do not want to participate in this study.

Teacher Signature

Date

Student Name

Signature of Researcher

Date

Teacher Questionnaire



2.

3. **Research Project Title:** Nature and Outdoor Education

4. **Principle Investigator's Name:** Amanda Aragon

Resource Student: _____

Grade: _____

Teacher: _____

Date: _____

Please fill out the following questionnaire about your resource student and return it to Mrs Aragon's box by **DATE**.

Thank you for your assistance,

Mrs Aragon

1. What are the student's current grades?

a. **Reading:** _____

b. **Writing:** _____

c. **Mathematics:** _____

d. **Science:** _____

e. **Social Studies:** _____

2. What strategies are being used to help this resource student succeed in the general education classroom?

a. _____

3. From a scale from 1-5, 5 being the strongest, how would you rate the student's self-esteem?

a. 1 2 3 4 5

4. What are the student's academic strengths and weaknesses?

a. **Strengths:**

b. **Weaknesses:**

5. What are the student's social strengths and weaknesses?

a. **Strengths:**

b. **Weaknesses:**

6. Does your student have behavior issues? (i.e. getting in trouble, not following directions, not following the rules). Elaborate.

a. Yes No

b. Please explain or give an example:

7. From a scale from 1-5, 5 being completely on task 100% of the time, what would you rate the student's on-task behavior?

a. 1 2 3 4 5

8. From a scale from 1-5, 5 being 100% focused, what would you rate the student's average focus on academic assignments?

a. 1 2 3 4 5

9. How does the student interact with others in an academic setting?

a. **Do they work better alone or with a group?**

b. **Are they usually the leader or follower?**

c. **Are they cooperative or do they get frustrated easily?**

d. _____

10. How does the student interact with others in a social setting?

a. **Do they play with a group or alone?**

b. **Are they cooperative or do they get frustrated easily with others?**

c. _____

11. Since the beginning of the Nature Trips have you noticed any differences in the student's focus, behavior, self-esteem, attitude toward school, or nature?

a. _____

Appendix N: Approvals

- **IRB Approval Letter**
- **Cooperating Institution Letter of Approval**

IRB Approval Letter



Channel Islands

CALIFORNIA STATE UNIVERSITY

Research and Sponsored Programs Office
Institutional Review Board

Date: October 15, 2012
To: Amanda Aragon, Principal Investigator
Cc: Amanda Quintero, Director for Research and Sponsored Programs
Subject: Study # G054046: Nature and Outdoor Education with a Resource Classroom

On August 6, 2012 the Institutional Review Board Chair of California State University Channel Islands (CI) reviewed your *exempt/expedited category 1* research at CSU Channel Islands. According to the policies and procedures of the Institutional Review Board (IRB) you may begin your investigation upon receipt of this notification.

Your IRB approval is granted for one year and your approval will expire on October 15, 2013. At the end of this period, the principal investigator(s) must submit a status report to the IRB via email at ib@csuci.edu stating if the study has concluded (or otherwise terminated) or whether the approval period will need to be amended for continuation of the originally approved study.

Principal investigator s) will also need to:

1. Notify the IRB within 10 days if the research was prematurely terminated;
2. Promptly report to the IRB any changes in a research activity, proposed amendments, or unexpected reactions;
3. Promptly report to the IRB any unanticipated problems involving risks to subjects or others; and,
4. Notify the IRB Chair immediately after any adverse reactions are experienced by participants of the investigational study or as reported to you by the sponsor/manufacturer/co-principal investigators.

You may not initiate changes to the approved research protocol without IRB review and approval, except where necessary to eliminate apparent immediate hazards to the human subjects. Should you have any questions please contact Amanda Quintero, Director for Research and Sponsored Programs (805) 437 3285.

Sincerely,

Nitika Pannar, Ph.D., Institutional Review Board Chair

One University Drive, Camarillo, California 93012-9599 Tel: (805) 437-8496 Fax: (805) 437-8817 www.csuci.edu

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Maritime Academy • Monterey Bay • Northridge • Pomona • Sacramento • San Bernardino • San Diego • San Francisco • San Jose • San Luis Obispo • San Marcos • Sonoma • Stanislaus

Cooperating Institution Letter of Approval

Approval Letter from Cooperating Institution

May 31, 2012

Research and Sponsored Programs Office
CSU Channel Islands
One University Drive
Camarillo, CA 93012-8599

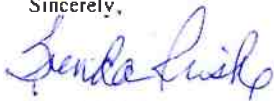
Dear Members of the Committee:

On behalf of MATES Charter, I am writing to formally indicate our awareness of the research proposed by Amanda Aragon, a student at CSU Channel Islands. We are aware that Mrs. Aragon intends to conduct his/her research by observing our resource students through her new Outdoor and Nature Curriculum.

I am responsible for employee relations and am the school Principal. I give Amanda Aragon permission to conduct her research in our school.

If you have any questions or concerns, please feel free to contact my office at (805) 495-7037 or email bpriske@matescharter.org.

Sincerely,



Brenda Priske
Principal, MATES Charter