



Niños y la Naturaleza: Nature in the World Language Classroom

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Introduction

“Mira a los árboles, los pájaros, las nubes, las estrellas y si tienes ojos serás capaz de ver que toda la existencia es alegría. Todo es simplemente feliz. Están felices sin ninguna razón: no van a ser primeros ministros o presidentes y no van a tener ingresos en el banco. Contempla las flores: no hay motivos. Es simplemente increíble lo alegres que son las flores.” -- Osho Look at the trees, the birds, the clouds, the stars and if you have eyes you will be able to see all of existence is joy. Everything is just happy. They are happy for no reason: they are not going to be prime ministers or presidents and they are not going to have income in the bank. Contemplate the flowers: there are no reasons. It is just unbelievable how happy flowers are.¹

In this multisensory unit designed for a World Language class, I will focus on providing opportunities for my Spanish students to connect to the natural world through place-based education. Over a span of six weeks my students will explore and observe various aspects in nature. My students will spend time in nature writing in the target language. This unit will include, but is not limited to, a nature journal written response to nature in the target language, a visual depiction labeled in the target language of an observation in nature, and an oral presentation of a selected journal entry. My plan is for the unit to culminate with each student selecting an entry from the entirety of their natural journal entries to present as their final entry, their summative assessment. Students will share the end product, their updated and enhanced journal entry, with classmates digitally using a learning management system like Schoology. They will also have the opportunity to present their final product to the larger school community during one of our weekly middle school meetings. This unit addresses the World-Readiness Standards for Language Learning of Interpersonal Communication and Global and School Communities.

Background

I currently teach at The John Dickinson School in Wilmington, Delaware in the International Baccalaureate Middle Years Programme (MYP), which has been in existence for eight years. The middle school is located within the high school building in a wing of its own and was created as an extension to the International Baccalaureate Diploma Programme for grades 11 and 12. The Diploma Programme was initiated at Dickinson five years prior to the inception of the Middle Years Programme. MYP was implemented to encourage more students to participate in the Diploma Programme. In its first year, MYP included grades six, seven, and eight; it has recently expanded to include grades nine and ten. A continuous sixth through twelfth grade International Baccalaureate Programme will be established at Dickinson in the near future. Our MYP is made up of just over 300 students.

Students must apply to participate in MYP. To be eligible, students must be motivated to learn. I am currently the only Spanish teacher in MYP teaching Spanish 1A (Grade 6), Spanish 1B (Grade 7), and Spanish 2 (Grade 8), meeting with my classes for ninety minutes every other day.

Inquiry is one of the ten attributes included in the IB Learner Profile. To be considered inquirers, “We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently, and with others. We learn with enthusiasm and sustain our love of learning throughout life.”² In order to be successful inquirers, my students need opportunities to immerse themselves in meaningful experiences. As learners, we rarely experience with a single sense. Our senses work together to give us a total picture of our experiences. My plan is to use multisensory and place-based learning, incorporating nature journaling, to foster my students’ understanding of their interconnectedness with nature while developing their Spanish language skills and vocabulary.

Unit overview

It is my goal to design a unit in which students will use the target language, Spanish, to express in writing their observations of nature. Students will investigate the great outdoors, placing themselves in nature, observing their surroundings, and recording their observations in a nature journal. They will explore various aspects of nature each week focusing on a different element: week one the focus will be line; week two, color; week three, shape; week four, form and texture; week 5, sound; and week six, taste. Each week of journaling will build upon the previous week’s entries making the journaling process cumulative. This will require each student to employ the necessary vocabulary for each area of focus and incorporate that vocabulary in future journal entries. I anticipate that initially it will be less intimidating for my students to record their observations with drawings rather than writing since they are novice Spanish learners. With their sketch in hand, they can then use the vocabulary needed to capture their observation in writing.

To conclude the unit, each student will select an entry from the entirety of their natural journal entries to present as their final entry, their summative assessment. Students will share their end product, their updated and enhanced journal entry with their classmates digitally using a learning management system like Schoology. They will also have the opportunity to present their final product to the larger school community

during one of our weekly MYP meetings.

Content Objectives

My plan is to use authentic Spanish language texts in this unit in order to present students with opportunities to immerse themselves in the Spanish language using authentic target language nonfiction writing: news articles, web pages, social media, and books, accompanied by culture rich realia such as infographics, charts, graphs, and maps. It is my intention to incorporate authentic texts and realia into this unit so that students can have exposure to the Spanish language through the materials from the everyday life of native speakers. Authentic text exposes students to culture because it is written for native speakers, by native speakers and has clear context. Some authentic texts and realia have built in supports for language learners like pictures, graphs, and maps. Both can offer language in small chunks making it more manageable for students. The language included in such realia as infographics, charts, and maps is highly contextualized making it easy for students to acquire new vocabulary quickly. "Language expresses cultural reality."³

Incorporating authentic text and realia, which are objects and activities used in the classroom to relate what is being taught to the real life of the people being studied,⁴ not only enriches students' vocabulary in the target language but it increases their understanding of the target language culture(s). Realia involves the senses in the learning process, by fostering creativity and stimulating the mind. Through realia students are exposed to real discourses, which in turn engages and motivates them in the process of language learning and ensures they learn to use the target language in various contexts. Authentic materials keep students informed about what is happening in the world while increasing their global awareness. Bringing realia and authentic text into the World Language classroom creates opportunities for students to be active learners and teachers to be facilitators, allowing lessons to be more interactive and students more independent. Students feel more comfortable with authentic materials and realia, which increases student motivation. Increased motivation leads to increased language use which leads to improved proficiency.⁵

I plan to pepper my activities throughout this unit with authentic texts and realia including target language television shows, documentaries, and videos about nature, using these to help teach my students the needed vocabulary for particular focuses in journaling. First hand photographs and videos of nature taken on my travels to other countries like Costa Rica, Ecuador and the Galapagos Islands, and Puerto Rico will be included providing my students the opportunity to observe some aspects of nature in target language speaking countries that they might not otherwise have the chance to observe. Infographics in the target language are a great tool for teaching the focus language vocabulary within this unit: line, color, shape, form and texture, sound, and taste.

Student Background Knowledge

During the year of Spanish prior to this unit, students completed a nine-week unit of study on Ecuador and the Galapagos Islands while reading the TPRS (Teaching Proficiency through Reading and Storytelling) novel *El Capibara Con Botas* in which they learn in detail about the biodiversity of this country, native flora and fauna, the life cycle of the Amazon Rainforest and specifically its effect on the global water cycle, native predators and prey. My students were exposed to all of these aspects of nature through literature in the target language, documentaries in both English and the target language, infographics and maps written in Spanish.

Many of these students then took advantage of the opportunity to travel to Ecuador and the Galapagos Islands with me to experience first-hand what they had read and studied about this biodiverse country.

My students will approach this unit having the following target language vocabulary already in their Spanish toolkits from their previous year of Spanish; days of the week, months of the year, numbers from zero to one hundred, seasons, and the weather. All of this vocabulary is necessary for them when recording observations in their nature journals. Each entry will begin with the day, date, time, season, and weather at the time of their observations.

Place-Based Education

Definition

I believe it helpful to understand the concept of Place-based education and its benefits to the learner. According to the Center for Transformative Learning at the University of Nebraska-Lincoln, “Place-based learning is an educational approach that focuses on developing student’s sense of place and learning through exploring their environment.”⁶ The Center for Place-based Education at Antioch University further explains this educational approach as emphasizing hands on, real world experiences, academic experiences that encourage students to develop stronger ties with their community, foster their appreciation for the natural world around them, and heightens their commitment to serving as active, contributing citizens.⁷ Place-based education presents “learning as intimately tied to environmental stewardship and community development.”⁸

Place in place-based education is defined by its human scale: a house, school, neighborhood, community, a forest.⁹ For place-based education to be effective as a teaching and learning model especially in a world language classroom it is essential to focus on nature even if the natural environment typically goes unnoticed or is under stress, as it is for many of my students who live in urban areas. According to Gregory Smith, an innovator in the field of place-based education, the focusing on the local environment that is overlooked or under stress is part of the innovation of this learning approach.¹⁰

Guiding principles

Place-based learning is guided by six learning principles: local to global, learner-centered, inquiry based, design thinking, community as classroom, and interdisciplinary approach. Four of these principles align very closely with our MYP Learner Attributes and because they do, this will facilitate my students’ understanding.

The first place-based learning principle is local to global context in which local learning serves as a model of global understanding, connections and challenges. This aligns with the MYP Learner Attribute of knowledgeable, “We develop and use conceptual understanding, exploring knowledge across a range of disciplines. We engage with issues and ideas that have local and global significance.”¹¹ Incorporating the place-based principle of local to global context in my unit will afford me the opportunity to work with my students encouraging them to explore relevant and significant concepts along with coaching them to remember what they learn in order to draw upon that knowledge and apply it in new situations.

Another guiding principle of place-based learning is a learner-centered approach. Including this principle in my unit allows for personally relevant learning for my students and enables student voice and responsibility. In order to employ this principle, I will focus on the MYP Learner Attribute of risk-taker in which “We approach uncertainty with forethought and determination; we work independently and cooperatively to explore new

ideas and innovative strategies. We are resourceful and resilient in the face of challenges and change.”¹² It is important for my students to hear, see and experience the significance of risk-taking in the world language classroom on a daily basis. In order for this to occur, it is necessary for me as the teacher to build a culture of risk-taking in my classroom. There are several strategies that I will implement in order to create and sustain this culture and I will discuss these in detail in the Teaching Strategies section of this unit.

Inquiry-based is the third guiding principle of place-based learning. In this principle, learning takes place through observation, posing pertinent questions, making predictions, and collecting and recording data in order to understand the economic, ecological, and socio-political world.¹³ For the purposes of this unit, I will be focusing on my students’ understanding of the ecological world. Inquirers is the MYP learner attribute that aligns most closely with this guiding principle of place-based learning. “We nurture our curiosity, developing skills for inquiry and research. We know how to learn independently and with others. We learn with enthusiasm and sustain our love of learning throughout life.”¹⁴ International Baccalaureate research has shown that students who employ the skills of an inquirer more often think critically, creatively, and reflectively. These students use prior knowledge to build upon when approaching new information. They research, gather new information and analyze their findings in order to create new understanding. Inquiring students realize that there may be more than one answer to any given question or problem. They are able to refine their findings and begin the inquiry process again.¹⁵ This guiding principle of place-based learning will be the guiding force behind this entire unit as my aim is to develop a curiosity about the natural world within my Spanish students.

An additional guiding principle of place-based learning is an interdisciplinary approach. Here the traditional subject area content and skills are taught using an integrated, interdisciplinary, and sometimes project-based approach in which all learners are held accountable and challenged.¹⁶ This guiding principle clearly aligns with the International Baccalaureate interdisciplinary approach to learning. In the MYP, “interdisciplinary learning supports students to understand bodies of knowledge from two or more disciplines or subject groups, in order to integrate them and create new understanding.”¹⁷ As a teacher of middle school students, I understand the value in organizing student learning at this level into disciplinary departments in order to meet the needs of increasing specialization. However, our constantly changing world demands education that inspires students to integrate disciplines in innovative and imaginative ways. As knowledge and information grow, it will be imperative for our students to successfully integrate the perspectives of various disciplines in order to understand complex ideas and issues.

Community as Classroom is the guiding principle of place-based learning in which communities serve as learning ecosystems. Experts, both locally and regionally, experiences and places are all a part of the expanded meaning of classroom.¹⁸ This guiding principle encourages expanding the view of the classroom to include various venues for learning such as bringing content and guest speakers from the community into the classroom, taking students on learning adventures outside of the classroom into the community, and doing an activity outside that could have been done inside the classroom. Venues such as these develop robust connections between our students and their community. I am creating real world learning experiences by using the community as a classroom. My students’ appreciation for the natural world will be heightened as I break down the barriers between the classroom and the community. Their interest in engaging in improving both community life and environmental quality will increase. It is my hope that by emphasizing hands-on learning grounded in community the academic achievement of my students will increase and they will develop a stronger commitment to community, which in turn will encourage the development of active, contributing citizens.

The final guiding principle of place-based learning is design thinking. While I will not include the sixth guiding principle in the design of my unit, I will provide a brief explanation of it. Design thinking provides students with a systematic approach to make meaningful impact within their communities through the curriculum.¹⁹ Design Thinking gives students an intentional platform to connect their curriculum to opportunities and challenges in the real world. It is human-centered coming from the empathy and understanding of others' needs. It is collaborative benefitting greatly from the view and opinions from multiple perspectives. Design thinking is optimistic, believing that no matter what, we can create change and working to create that change can be an enjoyable process no matter what constraints present themselves. Finally, it is experimental as it gives the students permission to fail and to learn from their mistakes by coming up with new ideas, receiving feedback on those ideas, and then iterate. In other words, design thinking is about believing in the possibility of change and that students have the power to make that change happen.²⁰

Nature Connectedness

Nature connectedness is a person's subjective sense of their relationship with the natural world. It is considered to be an aspect of one's personality going beyond the individual just having contact with nature. It includes individual differences in what one feels, thinks and experiences in their sense of connection with the natural environment. The term was developed due to individuals commonly reporting that they feel emotionally close to, and an integral part of, nature.²¹

There are numerous benefits to connecting with nature. Happiness has proven to be the strongest psychological benefit in relation to connecting with nature. One psychological study found that "the relationship appears to be positive and significant. In general, individuals who are more connected to nature tend to be happier."²² Research has proven that exposure to the natural environment can alleviate mental fatigue, improve attention and increase vitality. Overall, evidence suggests that contact with nature has important health effects, especially for people living in urban settings. A 2018 study by Twohig-Bennet and Jones found a correlation between exposure to "greenspace" and physical health benefits such as lower blood pressure, lower incidents of diabetes and stroke, and better overall health,²³ In a 2020 study, Martin, White, Hunt, Richardson, Paul, and Burt discovered that being in nature at least once a week was associated with improved general health regardless of the subjects' socioeconomic status.²⁴ By exposing my students to nature on a regular basis I hope to foster a positive sense of nature connectedness in their lives.

Who doesn't love being outdoors and enjoying some fresh air? The beauty of nature fascinates us and brings us together no matter our cultural background or language. As previous mentioned, being surrounded by nature has the power to relax us and reduce stress, and it increases pleasant feelings. It has great benefits for everyone's well-being and health. Being outside and talking about nature in Spanish is a wonderful way to develop and improve comprehension of the language, conversational skills and fluency. In addition, one can revel in their connectedness with nature enjoying the weather, plants, animals, sceneries, and landscapes while practicing the language.

For most of my students, in nature is where they play games and discover living things and unique places. Because nature is a part of their everyday life, they need to be able to express their connectedness to nature proficiently in the target language. In order to accomplish this, my students will need the vocabulary, communications skills, and fluency in the target language. What better way to develop what is needed to express themselves than by immersing them in nature, the very topic they are exploring.

Nature Journaling

Definition

Simply put nature journaling is “the practice of writing or drawing in response to nature.”²⁵ John Muir Laws in his book written with Emily Lygren, *How to Teach Nature Journaling: Curiosity, Wonder, Attention*, defines nature journaling as “collecting and organizing your observations, questions, connections, and explanations on the pages of a notebook using words pictures, and numbers.”²⁶ He further goes on to explain nature journaling as using words, drawings, and numbers to collect and record your observations, queries, explanations and connections on the pages in a notebook.

Health Benefits

As a participant in the seminar led by Dr. Jill Campbell, entitled “Writing about Nature,” I learned about the many health benefits derived from journaling about nature. The articles that we read and the discussions that we had surrounding this topic spurred me on to do some research of my own. In my research, I happened upon an informative Brain Science podcast by Dr. Ginger Campbell in which she discusses research on the aging brain and the benefits to keeping a nature journal. Allow me to share with you here some of what Dr. Ginger Campbell discussed.

Natural journaling is like exercise for the brain. It is a wonderful way to keep your brain in shape, strengthening already existing neuron connections and creating new ones. The more you practice nature journaling, the more neurons build up to support it. By consistently practicing nature journaling, you can literally rewire your brain.

Much as you tend to a garden by providing fertilizer and water, nature journaling waters your brain and your brain needs oxygen. There is evidence in research that shows walking is a wonderful way to exercise your heart. Incorporating walking into your nature journaling practice fertilizes your heart and waters your brain.

The skills used and developed in natural journaling, observing drawing, writing, and learning about the natural world around us are not only useful but also help to maintain cognitive function in adults and develop cognitive skills in our students.²⁷

Academic Benefits

The importance of educating our students in the great outdoors is frequently over looked due to an emphasis on standardized test outcomes, a focus on classroom learning, and most recently, the long period of remote learning experienced by our students due to COVID-19. There are numerous benefits to incorporating nature and nature journaling into our students’ learning environments. Here are a few academic benefits that I found in my research.

Being outdoors is good for the brain. In addition to the health benefits of nature journaling that I previously mentioned, I encountered the results of a study conducted by The University of Illinois’ Landscape and Human Health Laboratory that discovered that access to nature decreases the symptoms of ADHD in children. It also has been found to reduce stress and improve sleep.²⁸

When children learn in nature, academic performance increases. The results of a study conducted in California by the American Institute of Research indicated that children whose curriculum included outdoor learning,

including but not limited to nature journaling, demonstrated an increase in standardized test scores. They developed an enhanced attitude toward school. Their in-school behavior improved. Student attendance was greater. There was an over-all increase in student achievement.²⁹ In this same study, a section of the students involved were second language learners, specifically English Language Learners (referred to as EL students in the results). According to the results, these students experienced significantly larger gains than their non-EL counterparts in cooperation, leadership, relationship with peers, and motivation to learn. It is my hope to experience similar results with my Spanish students, also second language learners, as we venture into the world of nature journaling in the target language.³⁰

Journaling about nature outdoors develops observational skills. Nature journaling encourages slowing down. It offers the students permission to stop and take everything in and notice all of the details. Journaling helps students to see in a new and different way. Once the students begin to really observe they begin to discover the captivating details of nature. Kelly Johnson in her blog titled, *Sparking Wonder and Connection Through Nature Journaling* calls the fascinating details of nature “nature’s whispers.”³¹

Multisensory Approach to Learning

Definition

The Multisensory Approach to Learning is a method of instruction that can be defined as engaging two or more of the senses, sight, sound, touch, taste, and smell to strengthen memory and recall. This method employs the learners’ full range of cognitive abilities.³²

Benefits to Using the Multisensory Approach

Our students’ brains are creating neurological synapses all of the time as their brains develop. It is easier for them to make connections and recall information the more synapses they have. If connections are not made, they are lost, possibly for life. Engaging the senses helps students create connections and grasp information by activating the areas of the brain tied to memory.³³ Offering multiple entry points to learning acknowledges where children are coming from and helps to get them where they want to be. In this sense, multisensory learning is about connections.

An added benefit of multisensory learning is that it is highly engaging. Multisensory experiences are very active and can involve reading, making, talking, singing, dancing, and moving.³⁴ The most engaged students are always utilizing their senses. When given the opportunity, students will demonstrate their understanding using their dominant senses.

Multisensory learning can be viewed as an act of service. Students are working together, taking on different roles in the learning process such as student, collaborator, or teacher. In each of these roles different senses are engaged. In the role of student, one can both see and listen. In the role of collaborator, one can both speak and create. In the role of teacher, one can lead the student toward understanding using the way that best reaches them. Therefore, multisensory learning is by nature a social process in which students are continually serving each other in small but significant ways.³⁵

Teaching Strategies

Vocabulary

In nature journaling the students will be exposed to a large amount of new vocabulary. In order to prepare them, before delving into each week of journaling I will use a Knowledge Rating Scale to conduct a knowledge rating of the significant vocabulary for the week. I will use a rating scale that is Spanish to English since the students will be journaling in Spanish. Students will be given a list of words related to the nature focus of the week such as line, color, shape, form or texture, taste, and sound. They will be asked to rate how well they know each one. Rating scales help students activate prior knowledge and make them aware of the new vocabulary, exposing them to it before engaging it in context. Having students identify the vocabulary terms with which they are unfamiliar helps the teacher to be able to better prepare them to engage with the information needed for journaling. The students will be better prepared to focus and write about and/or sketch what they are observing in nature. In using formative assessments like rating scales, the teacher is better able to assess the students' prior knowledge. The Knowledge Rating Scale is a graphic organizer that contains each new vocabulary term in Spanish for that week's journaling focus. The rating categories included are "Have No Clue," "Have Seen It or Heard It," "I Think It Means," "Know It Well," and "Definition."

Before beginning the act of journaling each week, the needed vocabulary will be pre-taught. This will be done to help the students express what they are observing and ensure that they understand the discussions that we are having as a class about what they have observed, especially when unfamiliar and new vocabulary is being used. For the actual vocabulary instruction, the students will use a different graphic organizer to write the term in Spanish, the definition/meaning in English, and a sentence in Spanish using the term or draw an example. The vocabulary chart will be revisited throughout the unit as students refine their understanding of the vocabulary.³⁶

Modeling

The teaching strategy of modeling demonstrates to the students what is expected of them. Through explicit teacher modeling, the teacher provides students with a clear example of a skill or strategy. The teacher provides a framework to guide students by describing the skill or strategy, clearly describing features of the strategy or steps in performing the skill, chunking the skill into learnable parts, modeling using a variety of techniques, engaging students in learning through expressing enthusiasm, keeping a steady pace, asking good questions, and checking for student understanding. The teacher makes sure to clearly describe the concept, and then models the desired outcome by using visual, auditory, tactile, and/or kinesthetic instructional techniques while thinking aloud. The teacher can provide examples and non-examples (work that does not meet expectations) to show students the expectations and stop frequently to get student input or ask questions. This technique of modeling provides high levels of student-teacher interaction.³⁷ With teacher modeling, the students have a better understanding of the thought processes required for completing a task.

Realia

Realia is a term for concrete objects, real things, that are used in teaching to build vocabulary and background knowledge. It provides experiences on which to build along with providing opportunities for students to engage all of their senses in learning. Realia allows the student to feel, hear, see, smell, and even taste the object that is being investigated. If the actual object is unavailable then a replica of that object can be used

such as a model, illustration, or photograph. The further away from the actual object the replica, greater is the risk of some loss of sensory information that would be helpful in comprehension.³⁸

Nature Journaling

Natural journaling is an interdisciplinary approach that engages learners of any age in intently observing the wonders of nature. As previously discussed, this practice develops observations skills, supports visual literacy and critical thinking skills, nurtures a connection to the outdoors, and encourages creative expression.

When journaling about nature, the journaler includes numbers, pictures and words to record observations, information, and ideas on paper. Journal entries can focus on documenting any aspect of nature from a tree outside the window to flowers in a garden, from birds in the back yard to a squirrel on the playground, from houseplant to an apple in a fruit bowl. As we learned in seminar, entries may include questions about concepts or ideas and personal reflection.

Intentionality is key to nature journaling, including numbers, writing and drawing in journal entries. Significant patterns may be revealed when using numbers in entries which may lead to an entirely new set of observations. Writing helps in organizing thoughts as they are written on the page. Drawing leads to purposeful observation and improved memory. Recording all of this information on a journal page creates a rich, and engaging learning experience.

Classroom Activities

Activity 1: Introduction

The first activity is designed as a hook to get the students to engage with the themes that will be covered throughout the unit. As described in the Student Background Knowledge section of this unit, my students are coming to this unit having completed nine-week unit of study on Ecuador and the Galapagos Islands in which they learn in detail about the biodiversity of this country, native flora and fauna, the life cycle of the Amazon Rainforest specifically its effect on the global water cycle, native predators and prey. Many of these students then took advantage of the opportunity to travel to Ecuador and the Galapagos Islands with me to experience first-hand what they had read and studied about this biodiverse country. This activity consists of three parts: Access Prior Knowledge, Review of Nature in previously read literature and travel experiences, and the Introduction to Nature Journaling.

Access Prior Knowledge - Nature in Spanish Literature

To assess what the students already know I will present the students with questions in the target language like “What do you remember about Ecuador and the Galapagos Islands?” “How does the water cycle affect plant and animal life in the Amazon Rain Forest?” “Why are the Galapagos Islands considered to be special?” Students will record their responses on paper. I anticipate that some students will mention capybaras, monkeys and iguanas, pumas and jaguars, the water cycle and, the novel *El Capibara con Botas*. Some students will express the water cycle in terms of the puma and the jaguar wanting to disrupt it in order to prevent the capybaras in the story of Carlos the Capybara from escaping. A few students who traveled to the Galapagos Islands will share that these are very biodiverse.

Students then share their responses with a shoulder partner. Then I will direct a whole class discussion related to the questions. I suggest conducting a class poll related to the questions having the students create a bar graph or pie chart of the results. This will give students visual data indicating the similar opinions and experiences of classmates.

Review of Nature

The next part of this lesson will extend and refine student understanding of observation of nature through the use of videos and photographs. These types of media work well in my curriculum as a large percentage of my students acquire information visually, from charts, illustrations, photographs and videos. Before delving into nature journaling, I suggest using photographs or a video to review aspects of nature included in previous units of instruction to provide the students some context. Having traveled to Ecuador and Galapagos Islands this summer with students, I recorded a few videos and took many photographs of the flora and fauna of this very biodiverse country which I will share with my students. Using visuals, such as videos and pictures, is especially helpful for students with special needs as they help these students to acquire background knowledge and put the elements of the lesson into context. After watching the videos, or as students look at photographs, I will ask my students to complete these sentences in the target language, "I notice . . ." "I wonder . . ." "It reminds me of . . ." These sentence starters will prepare the students for nature journaling activities. Students will record their responses using a Google Form.

Students then share their responses with a shoulder partner. Then I will direct a whole class discussion related to the questions. Using the answers recorded on the Google Form, I can share the class results in the form of a graph or chart. I will be interesting to note similar and differing observations.

Introduction to Nature Journaling

Once students have observed aspects of nature from prior lessons, the goal is for them to apply that skill of observation to nature journaling. However, I anticipate that my students will inquire as to why they are nature journaling in Spanish class. They will likely state, "Nature is a subject in Science class." For the purposes of the explanation of why nature journaling in a world language class, our discussion will be conducted in English.

I will pose to my students the question that I anticipated they would ask me, "Why in the world are we nature journaling in Spanish class?" I will provide each student with three Post-It Notes on which they will record their own speculations on this question. Once they have recorded their responses, they will post them on the white board at the front of the classroom. I will ask for volunteers to share their responses with the class. Some students will say, "To learn nature vocabulary in Spanish," others may say "To practice writing about nature in Spanish," and there will be students who say, "I have no idea." As a class, we will then read the written student responses to the posed question. Once we have shared student responses, I will sort out those similar/close to the five reasons for nature journaling included in *How to Teach Nature Journaling* by John Muir Laws and Emilie Lygren and keep them posted on the board

In order to prepare my students to journal about nature in the target language, I want them to know and to understand why we are taking on this endeavor. In the *How to Teach Nature Journaling: Curiosity, Wonder, Attention* Laws and Lygren, discuss seven reasons to journal about nature. For the purposes of this unit, I have selected five of the reasons: to observe and learn; to build transferable thinking skills; to connect with nature; to practice mindfulness, and to build community. Students will be provided with a note sheet, in English, to record the benefits of nature journaling along with a brief explanation of each one as I introduce and discuss

them. For example, when discussing how nature journaling helps us to observe and learn I will explain to my students how writing down their observations aids them in formulating and verbally illustrating their ideas. The act of writing strengthens their memories.³⁹

Activity 2: Nature Journaling

This second activity is the heart of the curriculum unit in which students will actively engage in the nature journaling process. This activity consists of two parts: Setting Expectations and Journaling in Nature.

Setting Expectations and Routines

When taking students outdoors to observe and journal about nature it is important to provide structure and clearly communicate the expectations otherwise, they may become confused, discouraged, or overwhelmed. Without any direction, it can be tough to choose what to focus on in nature as it offers so many possibilities for observation. Students need structure to guide their attention and focus and scaffolds to aid in their decision-making process of what information to include in their journals.

As we venture out into the natural world it is important for me to communicate to my students that the rules of our indoor classroom apply to our outdoor learning space and that I clearly state any additional expectations that apply to our outdoor learning situation. Establishing boundaries and expectations for my students will provide them with a feeling of safety and sense of direction. It also allows me as the teacher to manage other aspects of our outdoor learning space more easily.

In order to set expectations and develop a routine from the start with my students, I will implement the activity *I Notice, I Wonder, It Reminds Me Of* recommended in *How to Teach Nature Journaling*. This activity will provide my students with a framework for observing nature and gathering information that they can include in their journaling. It will supply my students with the tools they need for exploring nature throughout the entirety of this unit and it is simple.⁴⁰

Incorporating routines fosters student engagement and focus during the nature journaling process, establishes expectations, and provides a sense of safety. One such routine I will establish with my students is outdoor classroom jobs which will help me manage the outdoor learning space while actively engaging my students. For those extra energetic students, these added responsibilities help them to focus their energy positively and engage more fully in the group experience. I will assign the roles of Journal Handler (this student is in charge of distributing and collecting the nature journals), Hydrator (responsible for making sure everyone drinks water), Time Keeper (this person keeps track of when the class begins and ends journaling), and Photographer (digitally records our experience with a photo). I will begin the unit assigning these four to individual students and I will rotate them weekly. I envision that more jobs will be added to this list as needed throughout the unit.

To provide structure to the journaling process, I believe it is important to establish beginning and ending practices. These set the tone for journal writing and signal a clear start and end. Once we are in our outdoor learning space, to settle into our journaling process I will have students take three deep breaths in through their noses and out through their mouths. This is a signal for my students that it is time to settle in and begin the journaling process. As time expires, we will gather together and take a few moments, no more than ten, for student to share with the group something from their journaling experience. This provides closure to the activity. I anticipate as we progress through the unit that our opening and closing routines may evolve and we will adapt and change accordingly.

Journaling in Nature

Students will explore various aspects of nature with each week of this unit focusing on a different element: week one the focus will be line (*linea*); week two, color (*color*); week three, shape (*forma*); week four, form and texture (*forma y textura*); week five, sound (*sonido*); and week six, taste (*gusto*). Each week of journaling will build upon the previous week's entries making the journaling process cumulative. This will require each student to employ the necessary vocabulary for each area of focus and incorporate that vocabulary in future journal entries. To provide consistency throughout the unit, as a class we will follow the same format for each weekly area of focus: introduction to the vocabulary needed for journaling that week, explanation of the weekly journaling activities, and post journaling discussion. In *How to Teach Nature Journaling*, John Muir Laws lays out nicely and in detail how to lead journaling activities. I will employ some of his strategies in this section of the unit.

Vocabulary - Access Prior Knowledge

To get the lesson started I will provide each student with a knowledge rating scale chart, prior to any instruction of the terms. The chart will have a list of twenty or so vocabulary words in the target language related to the topic of focus. My students will rate themselves on their level of familiarity with each term by placing a check in a column under one of the following headings: "Have No Clue," "Have Seen or Heard," and "I Know It Well." I will instruct the students to provide the English meaning of the word in another column labeled "Definition" if they know a word on the list enough to provide their own definition. If a student has seen or heard a vocabulary term from the list, I will direct them to write an educated guess as to the meaning of the word in the column labeled "I Think It Means." It is important to encourage them to be honest, as their responses will determine how much time will be devoted to the instruction of each vocabulary term.

Vocabulary - Direct Instruction

After the students reflect on their knowledge of the target language vocabulary, I will use a vocabulary chart made up of two columns, one with the vocabulary terms and the other with their English meanings, to clearly teach the vocabulary. Using this chart makes certain that all students have the needed vocabulary to participate in class discussions and activities. Students use the definitions to complete a graphic organizer based on the vocabulary terms in the target language by writing a definition or meaning of the word in English, writing a sentence in the target language using the term in context, and sketching the vocabulary word. Initially I will instruct the students to complete each section of the graphic organizer for every term with the end goal in mind of each student determining which option -- definition, sentence, or sketch -- is the most effective tool for him/her to learn and remember the vocabulary.

In order to provide consistency throughout unit, I will use the same procedures for accessing prior knowledge and direct instruction of vocabulary each week with the exception of the completion of a graphic organizer for vocabulary definitions. In order to differentiate instruction, instead of using the graphic organizer I will have students create digital flashcards using the website Quizlet or a similar site. On sites such as Quizlet students can create their personalized study stack of vocabulary terms allowing the students to be active participants in the learning process. Digital media works well in my curriculum because of it has multisensory appeal and will engage my visual, auditory, and kinesthetic learners.

Explanation of Weekly Journaling

Before each journaling activity it is helpful to review the expectations and instructions with students as it

provides them with the clarity needed to successfully complete the activity. In addition, I will explain to my students the purpose of our activity for the day. I might say, "Today as we journal, we will work on developing our observation skills. Our focus will be noticing lines in nature." Identifying a skill will allow my students to see this activity as an opportunity for growth not only in observation but also in the use of the target language as they will be recording their observations using the target language vocabulary related to the focus or theme of the week, in this instance lines.

Previously, I discussed the importance of establishing routine when journaling in nature. Another excellent routine to incorporate into the journaling process is the recording of metadata. According to John Muir Laws, "Metadata is the data behind the data of every journal entry."⁴¹ I will require my students to record in the upper right-hand corner of each journal entry page the date (*fecha*), time (*hora*), location (*locación*), weather (*tiempo*). I will encourage my students to be creative in their recording of metadata using illustrations and/or embellishments, or they may enter their metadata using a simple bulleted list. However, my students choose to enter their metadata, the entry of this data provides important context to their journal entry and it marks the passage of time. Metadata will help my students to focus on the bigger picture as it relates to each journal entry.⁴²

When beginning the actual journaling on paper, I anticipate that some students will have troubling beginning, not knowing where to start or what to do as this is all new to them. To guide my students, I will employ the teaching strategy of modeling by doing a quick demonstration of the journaling activity using a portable whiteboard. In my demonstration I will include sketches and vocabulary in the target language to label each sketch. This will provide a visual for my students of how they can lay out their journal entry for the activity and it clearly illustrates my expectations allaying any fear or anxiety my students might have regarding the activity.

Because my students are novice language learners, they will very likely find it difficult to record detailed descriptions of their observations in the target language. I predict most will find it easier to sketch, paint, or draw what they are observing and I will encourage them to do so. Once they have completed the visual reproduction of their observation, I will instruct them to use the target language vocabulary that was introduced for the week to label their drawings. By using the target language to label their drawing my students will be clarifying their visual representations by identifying and describing important features. Including labels helps build and reinforce target language vocabulary because my students see which elements of their work they have the vocabulary for and which they do not. I will direct my students to use lines and arrows when labeling their drawings.

Another technique that can facilitate recording observations in the target language is writing using bulleted lists. A typical novice language learner easily provides information in list form. A bulleted list will provide sufficient structure for my students to share their observations on paper. Once they have one item down another one will likely be not too far behind. John Muir Laws suggests that students use an open circle for each bullet point rather than a closed one, then they can come back later and fill in the circles next to the most compelling ideas.⁴³

Many novice language learners communicate using phrases and sentence fragments. Recording observations and/or describing observational illustration using phrase/sentence fragments in the target language allows my students to communicate an idea or information like a brief observation about the subject of a journal entry. They can also use these to ask a quick question. Writing in phrases or sentences fragments provides my students the opportunity to get their thoughts down on paper in the target language as they come. It allows

them to quickly capture observations and ideas. Students can go back and combine phrases and fragments about one subject in their entry.

When journaling, I will encourage my students to use specific and precise language when possible (for example, *azul claro*, light blue, instead of *azul*, blue). This is when the weekly vocabulary graphic organizer or flashcards can be utilized. I will provide them with sentence starters in the target language to aid in the writing process. For example, *Tal vez . . .* (Perhaps . . .), *¿Es posible que . . .?* (Is it possible that . . .?), and *Parece que . . .* (It seems that . . .) are sentence starters that my students can employ when recording a journal entry. Since they are all familiar with the numbers zero through one hundred in the target language, I will urge them to integrate numbers with words and pictures into their entries. Of course, I will remind my students they can always utilize *Me Doy Cuenta De* (I Notice), *Me Pregunto* (I Wonder), *Me Recuerda A* (It Reminds Me Of) which was previously introduced as a framework for observing and gathering information when journaling.

Post Journaling Discussion

Class discussion post journaling is not just an afterthought but an integral part of the learning process. I plan to spend about 15 minutes in conversation with my students after their journaling is completed. I will begin this activity having students engage in a shoulder partner discussion about each question before initiating a whole class conversation. Pair sharing allows every student to process their thoughts and speak their answers. This in turn increases the likelihood that more students will engage in the whole group discussion. From our shoulder partner discussion, we will transition into a whole class conversation, affording my students the opportunity to listen to each other's thoughts, ideas, and observations and build upon them. This will also provide me with an idea of what my students understand and in what areas they may need further support.⁴⁴

To begin the post journaling discussion, John Muir Laws suggests starting the conversation with general questions guiding students to reflect on the process of journaling and to collect their thoughts about observations made. Laws states, "We begin our discussion with these questions to support students' growth with journaling and to reinforce the observations students made while journaling"⁴⁵ Included in *How to Teach Nature Journaling* are recommended discussion questions which I will be using in the target language during the post journaling discussions with my students. Also included in the book are "big idea" questions referring to cause and effect, patterns, scale, proportion, and quantity, structure and function, and stability and change. These questions, according to Laws, boost student to the next level of learning using their observations to move towards a larger understanding of abstract concepts⁴⁶. I will be incorporating some of these questions as well into our discussions.

Activity 3: Reflection and Assessment

To conclude the unit, each student will select an entry from their nature journal as the culminating entry of the unit. This will require each student to complete a reflection on their journal entries each week which will aid them in the selection and completion of their concluding entry. I will provide students with a set of reflection questions in the target language along with helpful target language vocabulary and phrases, and the rubric that will be used to assess their work. Students will share their final journal entry with their classmates digitally using a learning management system like Schoology.

Reflection

At the end of each week, my students will reflect look back at their weekly journal entries reflecting upon what

they learned about the topic (i.e. line, color, shape, texture, etc.) and what helped them to learn. Then using their journal entries, they will answer reflection questions in the target language. I will provide the reflection questions and students will record their answers on the next blank page in their journals.

Preguntas para la Reflexión (Questions for Reflection)

1. *¿Cuáles son las cosas más interesantes que observé durante la semana?*(What are the most interesting things I observed during the week?)
2. *¿Cuál es la imagen más excepcional de mi diario?* (What is the most exceptional image in my journal?)
3. *¿Por qué esta imagen es única?* (Why is this image unique?)
4. *¿Qué aprendí sobre _____ (la línea, el color, etc.) de las entradas de esta semana?* (What did I learn about _____ (insert weekly topic) from this week's entries?)
5. *¿Cuáles son algunos ejemplos de los de mi diario?* (What are some examples of those from my diary?)
6. *La próxima semana trabajaré para mejorar _____. Yo lo haré por _____. (Next week I will work to improve _____. I will do this by _____.)*
7. *¿Cuál de mis observaciones me gustaría compartir con la clase? ¿Por qué?* (Which of my observations would I like to share with the class? Why?)

Once the written reflections are completed, in order to provide consistency throughout the unit I will have my students employ the shoulder partner method of sharing their reflections. We will then transition to whole group discussion allowing my students their personal reflections with the class and build upon them using the constructive feedback they receive from their classmates. My students will in turn use their weekly reflections as a tool to select journal entries to submit to be formatively and summatively assessed.

Assessment

During this unit my students will be assessed on their cumulative progress in nature journaling at least three times, including but not limited to two formative assessments and one summative assessment. The Council of Chief State School Officers defines a formative assessment as “a planned, ongoing process used by all students and teachers during learning and teaching to elicit and use evidence of student learning to improve student understanding of intended disciplinary learning outcomes and support students to become self-directed learners.”⁴⁷ A summative assessment according to The Glossary of Education Reform is “used to evaluate student learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period, and therefore they are evaluative rather than diagnostic.”⁴⁸ For both types of assessments I will be using the evaluation rubric created by John Muir Laws. It can be found in the appendix of *How to Teach Nature Journaling*.

Formative Assessment

Formative assessment is a process rather than an end goal. This assessment takes place when students and teachers receive evidence of student cognition and use it to further student learning and therefore formative assessments have motivational as well as cognitive benefits. In this way, this kind of assessment improves student achievement of the expected educational outcome. By incorporating formative assessments into the journaling process, my students will be able to answer the following questions: What am I trying to learn? What progress have I made toward my learning goal? What are the next steps that will take me closer to my learning goal? They will be able to do this by creating and assessing evidence of their own learning. Using this

process, my students will know what they need to do next allowing them to feel competent and more in control of their learning.⁴⁹

To begin the formative assessment process, I will provide my students at the beginning of each week of journaling with the evaluation rubric from the Spanish publication *How to Teach Nature Journaling: Curiosity, Wonder, Attention (Diario Ilustrado De La Naturaleza: Guía De Observación y Dibujo)*. I will take the liberty to adjust the rubric each week changing, deleting, or adding criteria based on the journaling focus of the week. Students will have the evaluation rubric before journaling so that they know what is expected of them. As they journal, students can refer to the rubric as checklist to ensure they have included are the required elements in their entries. At the end of each week, students will select one journal entry from that week to formatively assess. I anticipate that most will select the entry that they noted in their journal reflection that they would like to share with others. Students will use their selected entry and information from their weekly reflection to complete the evaluation rubric. I will provide written constructive feedback to my students. Since my school district requires teachers to record a minimum of seven formative assessment grades per marking period I will include at least two of these assessments.

Summative Assessment

A summative assessment is higher-stakes than a formative assessment and because of this it is critical to ensure that it aligns with the aims and expected outcomes of learning⁵⁰. To accomplish this, I will employ the same evaluation rubric used when formatively assessing my students. I have chosen this rubric because it lays out for my students what an ideal assignment should look like and it summarizes what is expected of them. It offers them with a path that guides them towards completion. Using the same evaluation rubric will provides familiarity for me students. It is an assessment tool with which they have already been working which will reduce any assessment anxiety.

As a culminating activity, my students will have the opportunity to select an entry from the entirety of their natural journal entries to present as their final entry, their summative assessment. In order to provide consistency and familiarity, I will employ the procedures from this summative assessment as with the previous formative assessments. Students will use their selected entry, journal reflections, and their formative assessments to complete an initial summative assessment of the selected journal entry. Once the initial assessment is complete, each student will have the opportunity to conference with me about that assessment and discuss steps moving forward in completing the final assessment.

After conferencing, students will work on enhancing their selected entry using all of the assessment tools available to them. Some students may expand on their written observations in the target language by using the details they originally recorded in list form or in phrases and sentence fragments to create descriptive sentences. Other students may include additional details either in writing or illustration about the journal entry topic. Yet others, may add physical nature such as a leaf, a bird feather, or a blade of grass. I anticipate this assessment process to take place over two to three ninety-minute class periods depending upon class size. When each student is satisfied with their entry, they will perform their final assessment using the evaluation rubric and I will use the same assessment tool when evaluating their completed product. Students will share their end product, their updated and enhanced journal entry with their classmates digitally using a learning management system like Schoology. They will also have the opportunity to present their final product to the larger school community during one of our weekly MYP meetings. My hope is that because the students will be sharing their journal entry with an audience, they will put forth the effort to be understood employing their observation skills and effectively communication their observations using the journaling techniques and skills

they have learned.

Appendix on Implementing District Standards

This unit is based on one IB MYP Objective, two Delaware World-Readiness Standards for Learning Languages and two Common Core State Standards. I will focus on IB Language Acquisition Objective Criterion D: Communicating in Written Form which expects the student to organize and express thoughts, feelings, ideas, opinions, and information in writing, write for specific purposes, and develop accuracy when writing in the target language. The Delaware World-Readiness Standards for Learning Languages are Standard 1.3 Presentational Communication: Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers or viewers; and Standard 2.1 Relating Cultural Practices to Perspectives: Learners use the language to investigate, explain, and reflect on the relationship between the practices and perspectives of the culture studied. I will focus on the Common Core Standards CCSSELA - Literacy w.5.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences; and CCSSES - LE 5.2c Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment.

Teacher Resources

Alvarado, Elisabeth. 2021. "Spanish Nature Words and Books for Earth Day." *Spanish Mama*. March 31. <https://spanishmama.com/spanish-nature-words-and-books/>.

This website offers a number of resources in the target language about nature.

Burton, Bethan. 2021. "Nature Journal Prompts." *Journaling with Nature*. Journaling with Nature. February 8. <https://www.journalingwithnature.com/blog/nature-journal-prompts>.

When you are at a loss for a journaling prompt article is a great resource with a plethora of detailed nature journaling prompts in the English language.

Ela, Annie. 2020. "Make a Nature Journal (with Things You Already Have at Home!) / CREA UN Diario de La Naturaleza (¡usando Cosas Que Ya Tienes En Casa!)." *Urban Ecology Center*. Urban Ecology Center. April 23. <https://urbanecologycenter.org/item/1318-make-a-nature-journal-with-things-you-already-have-at-home-crea-un-diario-de-la-naturaleza-usando-cosas-que-ya-tienes-en-casa.html>.

This bilingual website provides directions on how to make a natural journal from materials you already have from around the house.

Godoy, Sofía. 2021. "The Ultimate Guide to All Colors in Spanish." *Homeschool Spanish Academy*. HSA. September 20. <https://www.spanish.academy/blog/a-vibrant-guide-to-colors-in-spanish-with-phrases-and-practice/>.

This blog discusses the colors in Spanish using the Spanish color wheel chart. The author also breaks down the colors into categories according to their warmth. She identifies the primary and secondary colors as well as the colors of the rainbow. This blog is a great resource when discussing colors in nature.

Laws, John Muir, and Emilie Lygren. 2021. *Diario Ilustrado de La Naturaleza: Guía de Observación y Dibujo*. Madrid, Spain: Ediciones Anaya Multimedia.

This book offers detailed step by step instructions in the target language of how to teach nature journaling. It also includes nature journal activities with in depth directions to set up any teacher of Spanish to successfully journal in nature with their students. There are many great resources included in the Appendix, such as an evaluation rubric.

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This is a wonderful resource for those inclement weather days when nature journaling in outdoors is not accessible.

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