



<p>1. What is our purpose? done*</p> <p>1a) To inquire into the following:</p> <ul style="list-style-type: none"> ● transdisciplinary theme <p>Sharing the Planet: An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and of the relationships within and between them; access to equal opportunities; peace and conflict resolution</p> <ul style="list-style-type: none"> ● central idea <p>Plants and animals are connected within ecosystems in order to support sustainability.</p>	<p>Class/grade: 2nd Grade Age group: 7 – 8 yrs</p> <p>School: Willard School code: 7202</p> <p>Title Sharing the Planet (Ecosystems/ Biodiversity)</p> <p>Teacher(s): Grabis, Teran, Jaramillo, Torres, Yee, Tam, Hughes</p> <p>Date: 4/16/18-5/31/18</p> <p>Proposed duration: 90 hours over 6 weeks</p>
<p>1b) Summative assessment task(s):</p> <p>What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?</p> <p>Students will demonstrate their understanding of the central idea through a project/presentation of their choice and sharing their understanding of how plants and animals are connected within ecosystems in order to support sustainability. (ie: food chain, what the animals get from a habitat like rain, etc)</p> <p>Teacher will assess student's ability to explain/ portray: the characteristics of an ecosystem, its biodiversity, how plants and animals meet their needs within the system, and how plants and animals are connected.</p> <p>Based on the different projects/presentations students will be able to determine whether different animals (including never before seen animals) can survive within the different ecosystems and be able to explain their reasoning.</p> <p>By the completion of this unit the teacher will expect the students to take actions such as:</p> <ul style="list-style-type: none"> ● Make others aware of concerns and issues related to different ecosystems. ● Demonstrate care for the environment by: "going green", throwing trash where it belongs, composting, informing their family of the chemicals and detergents in the house that might eventually affect water sources, and by writing letters to various organizations that are large polluters or that have taken large areas of environmental space and converted them into industrial or business districts; use of reusable materials, such as water bottles and containers. ● Support the preservation ecosystem financially (ie adopt a section rainforest) 	<p>2. What do we want to learn?*done</p> <p>What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?</p> <p>Key Concepts: Responsibility Connection Causation</p> <p>Related concepts: Interactions, Ecosystems, Energy,</p> <p>What lines of inquiry will define the scope of the inquiry into the central idea?</p> <ul style="list-style-type: none"> ● Diversity of life within different habitats ● How plants and animals meet their needs within habitats (water, nutrients, sunlight) ● Connections between plants and animals <p>What teacher questions/provocations will drive these inquiries?</p> <ol style="list-style-type: none"> 1) What types of animals and plants exist within each habitat? 2) How is the diversity different or the same between various habitats? 3) How do living things meet their needs within their habitats? 4) How are plants and animals connected within their ecosystem? 5) How do environmental changes and the actions of humans affect ecosystems? <p>Provocations:</p> <p>Read <u>The Lorax</u> book and ask, "Are we facing a similar situation in our world today?" Show a food chain picture with crossed out animals. Discuss the affect that it will have on the food chain.</p> <p>OTQ with pictures related to endangerment</p> <p>Pictures of animals and habitats for small discussion- rotate the habitats but maybe keep the same animal</p>

3. How might we know what we have learned? *done

This column should be used in conjunction with “How best might we learn?”

What are the possible ways of assessing students’ prior knowledge and skills? What evidence will we look for?

- Through graphic organizers, thinking maps, and class discussions, teacher will assess students’ knowledge of ecosystems.
- Through classroom discussion and activities, teacher will assess students’ knowledge and responsibility of human and environmental factors affecting ecosystems.
- Through ecosystem classroom discussions, teacher will assess students’ ability to investigate causes and/or factors that might affect ecosystems positively and negatively.
- Through observation of class drawings, thinking maps and science journals, teacher will assess students’ ability to label/identify differences and similarities between the ecosystems.
- Through science journals, class observations, thinking maps, and activities, teachers will assess student understanding of how plants and animals meet their needs and how animals and plants are connected.
- Using a KWL, students will record their knowledge of ecosystems and the effects that human impact may have.

4. How best might we learn? *done

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

1. OTQ pictures with various ecosystems and its living things
2. Teacher/students will explore different ecosystems, its biodiversity, basic needs, food chain, connections between living things by reading books, watching videos, field trips, guest speakers, and internet resources.
3. Compare and contrast different ecosystems.
4. Teacher/students will learn about how living things are interdependent. Ex: Food chain, survival.
5. Using a world map, students will locate ecosystems and draw conclusions about environmental factors/patterns that affect regions of the world.
6. Investigate man’s impact on living species and the environment and discuss/debate/role play what is our responsibility toward the environment.

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

Thinking Skills: evaluation, analysis, acquisition of knowledge through research and discussion of living things and its ecosystems. Inferring and drawing conclusions.

Research Skills: Observation, collection, and interpreting data through research and inquiry experiments. Students work on paraphrasing information (not plagiarizing).

Communications Skills: Listen, write, discuss, and present (orally and written) findings of reports and experiments. Listen to others and discuss information while working cooperatively.

Social Skills: Group Decision Making, Adopting a Variety of group rules

Attitudes & Profile: appreciation, curiosity, caring, reflective as students show concern for plant and animal life and its sustainability.

5. What resources need to be gathered? *done

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Videos of animal programs (i.e. Animal Planet Youtube);

Field trips to California Science Center (permanent exhibits for different habitats)*, Natural History Museum*, Eaton Canyon

Reading Material: Ebooks* (i.e. Vet/Zookeeper); Periodicals (i.e. Ranger Rick); The Lorax by Dr. Seuss, Harcourt School Publishers: California Science textbook

Websites: Britanica, see drive doc with the list (2nd grade shared folder)

Food chain/Ecosystem-; websites such as: Kidspiration, Brainpop Jr., videos & brain games for science-neok-12.com, Youtube: CrashCourseKids

PUSD Seed Kit- Butterflies and Moths (contact Karen Jain about live specimens)

Miscellaneous: gardening

*possibility for next year: Who would win? Use it maybe as the intro activity.

How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

We will use community resources, such as the school garden.

Classrooms will have plant and animals for observation and investigation. Arlene Fernandez taught Green Initiative through the Department of Water and Power.