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| <p><b>1. What is our purpose?</b><br/> <b>1a) To inquire into the following:</b></p> <ul style="list-style-type: none"> <li>● <b>transdisciplinary theme</b><br/>                 Sharing the Planet<br/>                 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</li> <li>● <b>central idea</b><br/>                 Living things adapt to meet needs based on available resources within different environments.</li> </ul>   | <p>Class/grade: 1                      Age group: 6-7<br/>                 School: Willard                      School code:7202</p> <p>Title: Sharing the Planet</p> <p>Teacher(s): Elaine Kaiteris, Melanie Deng, Jenny Marquez, Dianne Cahir, Inga Grabis, Daniel Spencer</p> <p>Date: 4/6/15-5/15/15</p> <p>Proposed duration: number of hours: 90                      over number of weeks:6</p>  |
| <p><b>1b) Summative assessment task(s):</b><br/>                 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><b>Summative</b><br/>                 Students will do a project/presentation of their choice demonstrating their understanding of the central idea including how living things adapt to meet their needs in the environment. From the different projects/presentations students should be able to identify the main characteristics of most habitats including climate, plants, animals, and their interrelationships.</p> <p><b>Self Reflection:</b> Students will complete a self-reflection based on a selected piece of work. Personal/reflective inventory based on an overall understanding of the central idea. Through the study of this unit teacher will expect students to:</p> <ul style="list-style-type: none"> <li>● Understand the relationship between the animals and their environment,</li> <li>● Explain how the animals adapt to meet their needs</li> <li>● Demonstrate concern and care for the preservation of the environment</li> <li>● Understand that resources are limited within different environments and learn to conserve and protect them.</li> <li>● From studying the unit students will demonstrate their ability to take personal action by doing things such as:                         <ul style="list-style-type: none"> <li>● Turning off the lights to conserve energy</li> <li>● Cleaning up their local environment</li> <li>● Recycling</li> <li>● Planting classroom gardens and learning about the different factors that could affect the habitat like it effects the kid's plant.</li> <li>● Taking care of their school environment by picking up trash, watering the plants</li> <li>● Reusing items to make art (litter bugs)</li> <li>● Using maps to identify where certain habitats exist</li> <li>● Water conservation</li> </ul> </li> </ul> | <p><b>2. What do we want to learn?</b><br/>                 What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?</p> <p>Key Concepts: Change, Causation, Reflection<br/>                 Related Concepts: Interdependence, Adaptation, Conservation, Environment</p> <p>What lines of inquiry will define the scope of the inquiry into the central idea?</p> <ul style="list-style-type: none"> <li>● Characteristics and needs of living things within environments and habitats</li> <li>● Relationships among living things and ecosystems</li> <li>● Humans' impact on the environment</li> </ul> <p>What teacher questions/provocations will drive these inquiries?</p> <ol style="list-style-type: none"> <li>1. How do living things meet their needs within their environment?</li> <li>2. What are similarities and differences among living things?</li> <li>3. What relationships exist among living animals and plants and their habitat, as well as each other?</li> <li>4. What are the differences that exist between various habitats?</li> <li>5. How do changes in the environment affect animals and habitats?</li> <li>6. In what ways do humans affect various habitats?</li> </ol> <p>Provocations</p> <ul style="list-style-type: none"> <li>● OTQ using pictures related to the unit</li> <li>● Clip from disney movie - which habitat connected to Fact from fiction pair share</li> </ul> |

### 3. How might we know what we have learned?

*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 research activities, thinking maps, the teacher will assess students ability to sort and classify animals by habitats and characteristics.

Through research activities, and field trips teachers will assess students' ability to list the characteristics of various habitats and identify what makes each animal suited for its habitat. The teacher will assess students' ability to identify how the living thing's basic needs are met by its habitat.

Through imaginary animal/habitat creation project, teacher will assess student's ability to be creative in their animal design and to address the animal's needs through its habitat.

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

Use a circle map to check to see if they know what a habitat is, and to list which ones they know

"Where do Does the Animal Live?"- Animal placement activities to see if they can place animals into the appropriate habitats

Use pictures to see if students can name the animals

Tree maps to identify animals, its characteristics, its plants

Flow maps for food chain

Double Bubble Map to identify the similarities and differences of e.g. mammal, reptile, etc

### 4. How best might we learn?

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. Teacher will facilitate a discussion to activate prior knowledge and create a thinking map to represent previously acquired knowledge regarding habitats.
2. Teacher will provide a variety of resources to facilitate inquiry into different animals, plant groups and their habitats.
3. Teacher and the students will take a field trip to the Sea Lab and El Dorado Nature Center.
4. Teacher and the students will conduct an investigation into animal and plant needs and characteristics by creating experiments to test whether plants need light, soil, water, etc. (SEED kit)
5. Teacher and students will discuss the basic needs of all living things (food, water, and shelter/protection). The teacher will expose students to habitats through various means and will discuss with students how that habitat meets the needs of various animals and plants. Students also explore and research food chains.
6. Teacher/students will identify the interrelationships between animals and their habitat and the living and nonliving things within them.
7. Students will sort/classify animal pictures by different groups including: domesticated vs. wild; fantasy vs. real; herbivores, omnivores, vs. carnivores; mammals, reptiles, insects, birds, amphibians; and different animal habitats.
8. Students will research information and create a collage of a specific habitat and its inhabitants.
9. Students will create an imaginary animal and imaginary habitat for a specific habitat. The students will identify the needs and characteristics of their animal.
10. Students will learn the importance of water conservation and waste recycling and will teach other students to follow proper protocol on campus.

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

Research: collecting, recording, organizing and presenting data as students research and build habitats.

Thinking: Acquisition of knowledge, comprehension, application analysis, and synthesis as students determine why animals' needs are met in different habitats.

Communication: Listening, speaking, reading, writing and presenting as students acquire habitat knowledge and present projects.

Attitudes and Profiles: Inquirers, Curiosity, Creativity, Respect, Communicators, Empathy as students research, deliver projects and learn to care about animals and their habitats.

e learner profile?

### 5. What resources need to be gathered?

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

Discoverychannel.com videos (Planet Earth, Imax), L Zoo, Animal books, School/Local Library, Internet Atlanta Zoo Website, Animal Magazines (i.e. Ranger Rick, My Backyard, TIME for Kids), new science curriculum (Harcourt), SEED kits, KIND News (animal newspaper), El Dorado Nature Center fieldtrip-habitat backpack, Jr BrainPop rainforest video, flashcards from Lakeshore (classifying animals), Oceans (Movie by Disney), Earth (Movie by Disney), Medrona Marsh in Torrance, Montebello Barnyard Zoo, Brain Pop, Jr., National Geographic for Kids, History Channel, Blue Planet, Bill Nye "The Science Guy", Encyclopedia Britanica, You Tube for Education,

Books: Man Gave Names to All the Animals by Bob Dylan

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

Classroom will be conducive for cooperative group project, and auditorium will be used for guest speakers and final presentations, community volunteers with different careers may visit classrooms, and walking field trips will be used to solidify the information acquired in class.

### 6. To what extent did we achieve our purpose?

Assess the outcome of the inquiry by providing evidence of students' understanding of the central idea. The reflections of all teachers involved in the planning and teaching of the inquiry should be included.

Students demonstrated understanding of the central idea by researching how living things adapt using the available resources within their habitat.

Students were able to identify characteristics of animals and plants in their habitats projects.

Students also learned about animal adaptation to its surroundings and its placement in the food chain.

Students learned how to categorize animals into their various groups.(ie: reptiles, mammals, carnivores, omnivores, herbivores, predator, prey etc.)

Students labeled different key components of their habitat to identify the resources within a habitat.

#### How you could improve on the assessment task(s) so that you would have a more accurate picture of each student's understanding of the central idea.

We will make the assessment more open to student choice where they design their own project. It should include visuals, oral, and written content related to central idea. We will create an outline and a way to monitor progress of each student so that all students complete the assessment.

#### What was the evidence that connections were made between the central idea and the transdisciplinary theme?

Students were able to make connections between the central idea and the transdisciplinary theme. They were able to understand that living things are part of communities within particular habitats and They saw that they must adapt to meet needs based on available resources within different environments.

understand that communities and of the relationships within and between them

Students inquired how the rights and responsibilities of themselves and other living things connect to the struggle to share the available and finite resources within a habitat and the communities that are related to that habitat. Students made connections between the destruction of the habitats and how it affects our lives such as water and air pollution and man's responsibilities toward habitats.

- Students participated in classroom discussions sharing their knowledge of the unit.
- Students demonstrated communication and higher thinking skills through various assignments such as recycling, picking up trash, and conserving water.
- Students demonstrated higher thinking skills through explaining and predicting changes that would occur if a habitat was changed. For example, polar region ice cap is melting away and impacting the polar animals.

### 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

#### **central idea**

Living things adapt to meet needs based on available resources within different environments.

### 7. To what extent did we include the elements of the PYP?

What were the learning experiences that enabled students to:

- develop an understanding of the concepts identified in "What do we want to learn?"
- demonstrate the learning and application of particular transdisciplinary skills?
- develop particular attributes of the learner profile and/or attitudes?

In each case, explain your selection.

Connection: Students made connections between animals and their habitats. Students categorized animals by placing them in their correct habitats. Students created murals in which animals and plants were added to the correct habitat.

Form: Through research using various forms of media, students grasped the makeup of various habitats.

Causation: Students identified the cause and effect of the plants' and animals' needs. Through discussion of hypothetical circumstances and the effect it would have on the habitat and its inhabitants. Students also identified the cause and effect of changes in their classroom environment.

Inquiry: Students investigated a specific habitat and had to create a visual presentation. Students investigate possible adaptations for functioning with the limitations of certain limbs.

Transdisciplinary Skills :

Research: While researching habitats, students collected, recorded, organized and presented data. Students researched different habitats and learned about their climate, plants, animals and their location.

Thinking: Acquisition of knowledge, comprehension, application analysis, and synthesis as students determine why animals' needs are met in different habitats.

Communication: Listening, speaking, reading, writing and presenting as students acquire habitat knowledge and present projects.

Attitudes and Profiles:

Inquirers: Students inquired on different habitats and their characteristics. They were interested on what makes habitats work and where they are located.

Curiosity: Students, through the use of inquiry, learned where and how species lived.

Creativity: Students created a visual representation with recycled materials depicting a habitat, including plants and animals.

Respect: Students learned how to respect habitats through reduce, reuse, recycle.

Communicators: Students communicated the importance of preserving habitats.

Empathy: Students developed action plans that show empathy for the earth.

## Reflecting on the inquiry

### 8. What student-initiated inquiries arose from the learning?

Record a range of student-initiated inquiries and student questions and highlight any that were incorporated into the teaching and learning.

1. *What can we do to help our environment?*
2. *What is a mammal? Reptile? Amphibian?*
3. *Why do animals live in different places?*
4. *Do animals and people share the same habitat?*
5. *How is an animal that lives in the ocean a mammal?*
6. *Can the same animal live in multiple habitats?*
7. *What does it mean when an animal is extinct?*
8. *What is a food chain?*

*(2) Students researched the different characteristics of each type of species that helped them understand how they use their environment to survive. They researched and understood why mammals change their fur color in different seasons.*

*(1) Students created a list of actions to help different habitats. Some students went home and took actions with their family. One student shared with the class that balloons end in the ocean. Some students picked trash in school and around their community.*

*(4) Students learned that the rainforest is shared by both animals and indigenous tribes. Students saw a video that showed how people live and use the rainforest resources to survive.*

*(8) Students read a book about habitats which took them through the food chain in Savanna habitat. Students became curious and read other books on other habitats to find out the food chain. Students learned about the relationship between predator/prey. Students learned the difference between an herbivore, carnivore, and omnivore and how it relates to the shape of their teeth.*

*(6) Students researched the differences between habitats and how one animal can adapt its diet, physical characteristics or behaviors to survive in different habitats. Students also simulated in the classroom how a habitat changes and what happens to the animals in the habitat when they don't have adequate time to adapt.*

*At this point teachers should go back to box 2 "What do we want to learn?" and highlight the teacher questions/provocations that were most effective in driving the inquiries.*

#### *What student-initiated actions arose from the learning?*

*Record student-initiated actions taken by individuals or groups showing their ability to reflect, to choose and to act.*

- *Students went home and asked their families how they can contribute to minimizing the effects of littering, pollution, etc. has on the Earth.*
- *Students decided to save resources by using both sides of paper. Students began to use paper wisely.*
- *Students made conservation posters to save habitats and posted them around school.*
- *Students recycled paper and plastic and picked up trash and coordinated the school wide recycle program by taking all the bins to the curb for pick up.*

### 9. Teacher notes

Learning Language/ Learning about language emphasis

Researched different habitats

Read different habitat books

Presented different habitat projects

Researched and wrote about how animals adapt to their specific habitat

Learning Math/ learning about math emphasis

Students created math word problems on particular habitats

Students made connections to seasons and time zones

Students made triple digit equations related to a specific habitat

Science

Through habitat research students discovered all plants and animals have needs and how they are met through their environment.

Students discovered that climate has an effect on what plants and animals can survive within different habitats.

Through plant experiments students discovered variables that can affect plant life.

Social Studies

Students discovered where habitats are located on a map.

Students learned how to use cardinal directions.

Arts

Students used many types of media to depict habitats.

Students enjoyed songs that related to habitats.

Students created original haiku poems about various habitats

PSPE (Personal, social and physical education)

Students acted out different animals.

ICT (Information, communication technology)

Students created a food chain in Kidspiration

Students illustrated a habitat in Paint and wrote about it.

Students watched different videos about habitats in BrainPop.

World Language

Students learned different habitat names in Spanish.

They also wrote sentences about a specific habitat.

Students learned about geographical features

#### **Suggestions:**

Teachers will look into going to local habitat, Eaton Canyon

Teachers will also get information on Medrona Marsh in Torrance

Next year, have parents and students collaborate in creating a habitat in the classroom

- *Parents, staff and students come for Beautification Day to help clean the school and gardening.*
- *Some students cleaned up trails while hiking.*
- *Students selected an animal to research and gathered information on that animal's habitat and its physical and behavioral characteristics and how they fit into the food chain.*