**Planning the inquiry**

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| **1. What is our purpose?**  **To inquire into the following:**  **Transdisciplinary theme:** Sharing the Planet  **Central idea:** Humans and Their Choices Have an Impact on the Planet  **Over Arching Concept**: Sustainability  **Provocation**: Groups of students copy the teacher’s example but there are excess or not enough supplies (Cupcake example.) The kids need to share, or go to other groups to get what they need. Build a flower, frog, robot, etc. Example can be made using shapes to incorporate math (NO TALKING)  **Summative Assessment Task(s):**  Create a diorama of plant or animal environment.  PE/O'Brien- Students will be using different physical activities to demonstrate an understanding of how to share infinite and finite resources. Activities will be based upon grade level (examples of infinite resources- kindness towards others, teamwork, etc. Examples of finite resources- there are only a certain number of jump ropes that must be shared or as a human you can only use as much energy as your body can expend).  Spanish/Garcia Ss will make a craft activity about the planet and the environment vocabulary in Spanish.  **Learner Profile (2)**: well-balanced, caring, principled, open-minded, risk taker, knowledgeable, communicator, reflective, thinker, inquirer | **Class/grade**: Kindergarten  **School**: Copeland  **Teacher(s):** Bussey, Ellison, Heise, Spikes, O’Brien, Garcia  **Date**: April 19th to May 25th  **Proposed duration**: 5 Weeks (Buffer April 12-16)  **2. What do we want to learn?**  What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?  **Related Concepts**: Environment, Organization  **What lines of inquiry will define the scope of the inquiry into the central idea?**  An inquiry into preserving our world  An inquiry into the importance of taking care of our environment  An inquiry into our actions  **What teacher questions/provocations will drive these inquiries?**  **(Guided Questions)**  How are we responsible for taking care of our planet earth? (responsibility)  What is the function of plants/animals in our environment? (function)  What causes changes in the environment? (causation)  PE/Obrien Lay out 5 jump ropes and tell everyone that they each need to grab a jump rope. Use this to start a conversation about sharing when there are a set number of items.  Spanish/Garcia - Watch a video about the Earth and ask: What is the Earth sick? What can we help it to feel better?  **Approaches to Learning (3)**: Communication, Research, Self-Management, Social, Thinking |
| **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?  KWL Chart  Graphic Organizers  Class participation  Journal work  Pre/Post Test  GKIDS  Graphing Predictions for Sink and Float  Project  Post Assessment  PE/Obrien - After the initial provocation, I will determine how much prior knowledge students have regarding infinite and finite resources. We will spend time exploring concrete examples of finite resources such as footballs, hula hoops, etc. For 3rd-5th grade we will progress past concrete examples and explore more abstract finite resources such as energy and money. 3rd-5th will also explore infinite resources that involve cooperation with others.  Spanish/Garcia - Thinking routine about the video.  **What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?**  Student participation  Journal Work  Post Test  Potential Field Trips/Activities  \*Grow plants for Mother’s Day  \*Chicken Little Play  \*Farm Visit  \*Strawberry Farm Visit  \*Visit the Zoo  \*Animal Visit\*\*\*\*\*  Spanish/Garcia - Say orally some vocabulary about the Earth video in Spanish. | **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?  **Tuning In:**   * Provocation: Have cupcakes no icing, have various supplies. Students must make thier cupcake look just like the teacher but will have a surplus/not enough of supplies students must decide on what to do to solve problem (students must borrow from another group.) NO TALKING Or do a similar activity with shapes or etc. to make a robot, to match math standards. * Plant a seed or small plant (prep for Mother’s Day gift)   **Finding Out/Sorting Out:**   * Put a few plants around the room (closet, window, etc. to show/discuss how needs are or not met.) * Watch “Animals for Kids to Learn” to introduce different animals (YouTube) * Put various objects in a tub of water, predicting which items will sink and which will float. * Create plants and animals with 3D shapes to show identification.   **Going Further:**   * Take bags outside and clean up the playground and discuss why the playground looks the way it does and how to fix it. * Create a plan for recycling at home or school * Explore the world outside discuss what can be found (plants, dirt, animals etc.) Compare different types of plants and animals.   **Drawing Conclusions/Reflecting and Acting:**   * Review recycling discuss improvements for our world * How would the world be without particular plants or animals.   Spanish/Garcia - Ss will draw a save environment and name in Spanish their main elements.  What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?   |  | | --- | | Thinking Skills: Comprehension, Application, Evaluation  Social Skills: Respecting Others, Fine Motor Skills  Communications Skills: Listening, Speaking, Reading, Writing  Research Skills: Formulating Questions, Observing  Learner Profile: Inquirer, Communicator, Reflective, Open-Minded  Spanish/Garcia Caring, reflective, and good communicators. | |
| **5. What resources need to be gathered?**  What people, places, audio-visual materials, related literature, music, art, computer software, etc., will be available?  Brain Pop, Brain Pop Jr.,  **Books**:  MyOn  Plants  Secret Lives of Plants  Do Plants Have Heads  Experiments with Plants  Curious George: Plants a Seed  Weirdest Animals  Who Grows up on a farm  Insects  Shapes are Everywhere  **Videos**:  Animals for Kids to Learn  Learn Sea Animals (Underwater Peek A Boo)  What is a Plant? All About Plants for Kids  How Does a Seed Become a Plant?  Sink or Float?  Sink or Float with Blippi  Learn 2D and 3D shapes and race Monster Trucks  Spanish/Garcia - Video, songs, flashcards, matching games, paper, and markers.  **How will the classroom environment, local environment, and/or the community be to used to facilitate the inquiry?**  Possible recycle project  Spanish/Garcia - Display Ss work in the hall. | |

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| **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.  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.  What was the evidence that connections were made between the central idea and the transdisciplinary theme?   * Ellison- I believe we achieved our purpose because students were able to give concrete examples of ways that we take care of the Earth, articulate parts of a plant, and describe different life cycels. * Bussey- Connections were made with the central Idea and the Theme. The students were able to understand that their actions affect the planet; the 3 R’s, keeping the environment clean etc.. * They looked for the recycle symbol on objects and they enjoyed talking about ways to keep our earth clean. They also like drawing or putting the life cycles in order. | **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.   * Ellison- We included elements of the PYP by having students ask questions about what they wanted to learn about the planet, plants, and different life cycles. A transdisciplinary skill that was demonstrated was formulating questions. Students began to learn about how to be caring towards the earth, and knowledgeable about life cycles in this process. * Bussey- Students were able to be reflective and think of better ways to take care of the environment to ensure that humans plants and animals stay healthy. Students also communicated their ideas about the life cycles and understanding that plants and animals have life cycles. * We talked about other animals that could have life cycles and recalled the life cycles we learned. They wanted to keep the classroom clean more and the outside. |
| **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.  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.   * Ellison- Student-initiated inquiries that arose from learning came from the plants that we grew, students wanted to know how the process happened and if it was magic 😊 * Students were so fascinated with growing the plants . They wanted to know if they could take their plants home and plant them and possibly grow corn and radish. Also, students wanted to start picking up trash in their immediate surroundings to keep their environment clean. * They asked if seeds from fruits could grow and I told them sure try it and see when they are home. They were excited to watch their plants grow. | **9. Teacher notes**   * This unit was fun for the students, I hope next year we can extend the project portion of this unit and have the children do a project where they clean up the school/playground. The plants that students were able to grow were so much fun, it was great to see them engage in genuine inquiry about the life cycle of a plant. * **Bussey- Next year I would love to possibly plant a garden here at school so that the students can see the fruits of their labor; they can eat the vegetables and possibly make a profit by selling the produce** * **I would love for us to plant a fruit tree for the school and watch it grow until the end of the school. It was fun and interesting and they understood everything that we went over.** |

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**Unit 6 Standards:**

**Reading**:

**KRF1-4**:

**KL5b**: Demonstrate understanding frequently occurring verbs and adjectives by relating to their opposites.

**KL5a**: Sort common objects into categories.

**KL6:**

**Math**:

**G1**: Describe objects in the environment, using names of shapes (square, circle, triangle, rectangle, hexagon, cubes, cones, cylinders, spheres); and describe the related positions of these objects using terms such as above, below, beside, in front of behind, next to.

**G2**: Identify and describe shapes (square, circle, triangle, rectangle, hexagon, cubes, cones, cylinders, spheres); regardless of orientation or overall size

**G3:** Identify 2D and 3D shapes

**G4:** Analyze and compare 2D and 3D shapes

**G5:** Build model shapes 2D and 3D shapes

**G6:** Compose simple shapes to form larger shapes

**Science/Social Studies:**

**SKL2**. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.

a. Construct an argument supported by evidence for how animals can be grouped according to their features.

b. Construct an argument supported by evidence for how plants can be grouped according to their features.

c. Ask questions and make observations to identify the similarities and differences of offspring to their parents and to other members of the same species.

**SKE2**. Obtain, evaluate, and communicate information to describe the physical attributes of earth materials (soil, rocks, water, and air).

a. Ask questions to identify and describe earth materials—soil, rocks, water, and air.

b. Construct an argument supported by evidence for how rocks can be grouped by physical attributes (size, weight, texture, color).

c. Use tools to observe and record physical attributes of soil such as texture and color

**SKP1.** Obtain, evaluate, and communicate information to describe objects in terms of the materials they are made of and their physical attributes.

a. Ask questions to compare and sort objects made of different materials. (Common materials include clay, cloth, plastic, wood, paper, and metal.)

b. Use senses and science tools to classify common objects, such as buttons or swatches of cloth, according to their physical attributes (color, size, shape, weight, and texture).

c. Plan and carry out an investigation to predict and observe whether objects, based on their physical attributes, will sink or float.

SSKH1 Identify the national holidays and describe the people and/or events celebrated.

c. Independence Day

f. Memorial Day