

TTCD Lesson Plan (9): Seed Sorting Game

Unit: Hydroponics	Grade(s): 2-8	Class Size: 1-30	Lesson Duration: 30 minutes	Location: Classroom
Topic(s):	Plant life cycle, seeds			
Student Prerequisites:	Students understand that a seed is the unit of reproduction for a plant, and that there are many different types of seeds on earth.			
Essential Questions:	Why do seeds from different plants look different? How might a seed's shape help the plant reproduce?			
Student Objectives:	Students will observe the differences in seeds from different plants.			
Standards:	Supports NGS Standards: ○ 2-LS4-1: Make observations of plants and animals to compare the diversity of life in different habitats. Alaska Writing Standards Grade 1: 4. Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly			
Local Context:	Make connections to seeds found in the local ecosystem, either by collecting seeds outside with students or showing some examples of native plant seeds.			
Vocabulary:	Seed, sort, descriptive			
Dena'ina language words:				
Materials:	● Seed sorting boxes, 1 strip per student (see page 3) ● Plastic baggies or small cups for each seed set ● A variety of dry seeds, such as calendula, broccoli, squash, and corn ● A variety of native plant seeds for comparison			
Instructor Prep:	● Identify 15 different seeds. Fill cups or baggies with identical sets of 15 seeds, one set per student. ● Print out seed sorting boxes and cut out one strip for each student.			
Introduction:	1. Discuss what a descriptive word is and come up with some as a group. You might practice with pictures of several seeds, or give each student one seed, and go around the room sharing one word each about their seed. 2. Optional practice game: Have everyone stand up and make a circle. Hand out the same seed to each student. Go around the circle as many times as you can with each person sharing <i>one</i> descriptive word about the seed, without repeating words that have already been said. Anyone who can't think of a word is out, and must take a seat. Last one standing wins!			

	3. Optional Warm-Up: Have each student or pair of students sort their seeds from smallest to largest in the boxes on their slip of paper. This helps them understand the term “sorting,” and become familiar with using their paper boxes. There is no right or wrong answer!
Activity:	1. Divide the class into pairs and seat each pair back to back, each with an identical set of 15 seeds and their paper boxes in front of them. 2. One student will be the “describer” and the other will try to find the right seeds based on their partner’s description, and place them in the same order on the ground or desk as their partner has done. 3. The amount of time this activity takes for each pair will vary. Have each “describer” partner check the other’s work, and then switch roles. Some students might be able to play several times and others will take the whole time for one game.
Wrap Up:	Return to the board from the beginning of class, and ask again: Why do you think some seeds look so different from other seeds?
Lesson Adaptations:	• Give each group a few native plant seeds to observe. ○ Can anyone identify what plant they come from? ○ How are these seeds similar or different from the other ones we have observed today? ○ What part of the plant do they come from?
Extensions:	• Start a classroom seed collection: Take a walk outside the school to collect seeds from nature. Encourage students to bring in seeds from home and to save seeds from foods they eat. Use the seed collection for quick lessons, such as categorizing seeds based on methods of travel (sticking, drifting, animal digestion, popping or springing) • Taking care of your baby seed: Give each student a plastic bag with a bean seed and moist paper towel inside. Explain that they will be caring for this seed as it germinates over the next few days by opening the bag to air it out once a day. They should check to make sure the paper towel stays moist. Students can draw or record how their seed changes in their journal. Allow students to choose where to keep their seed, whether they take it home or leave it in a special place in the classroom. Once they think their seed is ready to plant, they can choose any special place they want to plant it.
Reflections:	How did it go? What did students understand most/least? What could change about instruction or lesson plan?
Resources Used	AIMS Education Foundation “Primarily Plants” Curriculum

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