Lesson Plan Template

Grade: 7	Subject: Life Science
Materials: 5 different seed species, paper, pennies, large fan	**Technology Needed:**

Instructional Strategies:	Guided Practices and Concrete Application:
☑ Direct instruction ☐ Peer teaching/collaboration/ cooperative learning ☐ Guided practice ☐ Socratic Seminar ☐ Visuals/Graphic organizers ☑ Learning Centers ☐ PBL ☐ Lecture ☐ Discussion/Debate ☐ Technology integration ☐ Modeling ☐ Other (list)	☐ Large group activity ☐ Hands-on ☑ Independent activity ☐ Technology integration ☑ Pairing/collaboration ☐ Imitation/Repeat/Mimic ☐ Simulations/Scenarios ☐ Other (list) Explain:

Standard(s) MS-LS1-4: Use evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction.	Differentiation Below Proficiency: At the different stations, students will be able to talk to each other about seed type and dispersal method. I will also be available to address concerns and ask probing questions.

Objective(s) Students can recognize different plant reproduction/ seed dispersal strategies in plants and explain how they relate to adaptation to the environment.
 Students can construct a seed dispersal model that reflects adaptation to environmental factors.
 	
 Bloom's Taxonomy Cognitive Level: Comprehension, application
	Above Proficiency: Students that are above proficiency will be able to move at their own pace through the stations. If they finish before their classmates, they will begin on the "penny tree" portion on the lab and/ or help their peers.
	
	     Approaching/Emerging Proficiency: Assistance from the teacher and peers will be available if needed but not automatically given. These students will be given probing questions as needed.
	
	     Modalities/Learning Preferences: Visual, verbal

Classroom Management- (grouping(s), movement/transitions, etc.) Student will begin seated for an introduction to seed dispersal methods. Afterwards they will go to 5 different stations to examine a seed specimen and complete the handout. After they will collaborate with a partner to complete the penny tree dispersion part of the lab.	**Behavior Expectations-** (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) Students are expected to complete the first part of the lab independently or collaboration if they choose. In the second part of the lab, they will be expected to collaborate with a partner to construct the wind seed dispersal model.

Minutes	Procedures
15	**Set-up/Prep:** 5 Stations with an acorn, apple, dandelion, burs, and coconut will be set up. Handouts for the stations will be printed and available for students.
3	**Engage:** (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) Opening questions regarding previous lessons on plant adaptations and reproduction.
10	**Explain:** (concepts, procedures, vocabulary, etc.) The students will have a short presentation on structure and function in plant seeds and common methods for seed dispersal. The dispersal methods will include wind, water, consumption, burying, and clinging.
25	**Explore:** (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) Students will get a handout and go to each of 5 stations containing either an acorn, apple, dandelion, coconut, or burs. Students will write down the things they notice and predict the way that those seeds are dispersed based on the methods discussed in the presentation. After the stations and questions on the handout are completed, students will collaborate with a partner to use a single sheet of paper to design a seed covering that used wind for dispersion for a "penny tree" (Pennies will be used as the seed). After they design a seed covering, the "seed" will be placed in front of a large fan to see how far it is carried by the "wind".
10	**Review** (wrap up and transition to next activity): After groups have had a chance to try their penny seed design, we will discuss as a class which seed coverings were the most effective and the relationship between structure and function.

Formative Assessment: (linked to objectives) Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc. I will be able to check in on students and assess understanding as the students move between the stations. Turn and talks will also be used during the class discussions so I listen in and see how students are processing the information.

Consideration for Back-up Plan:

Summative Assessment (linked back to objectives)
End of lesson:
Students will turn in the competed handout and test their penny seed models.
If applicable- overall unit, chapter, concept, etc.:

Reflection (What went well? What did the students learn? How do you know? What changes would you make?) This lesson was going to be taught to a 7th grade life science as part of a plant unit but was changed due to a sudden switch to distance learning for the students. A strong aspect of this lesson is that it covers the concepts of seed dispersal in different ways through the presentation, stations, activity, and discussion at the end. This is so that students have multiple exposure to the concepts and can better understand how structure and function are related with living organisms.