

Science Lesson – What is a seed?

Grade: 2		Subject: Science	
Materials: Different types of seeds, The Watermelon Book, student chart, Seed labeling worksheet (both in separate file)		Technology Needed: Elmo camera for teacher use	
Instructional Strategies: X Direct instruction X Peer teaching/collaboration/ X Guided practice cooperative learning <input type="checkbox"/> Socratic Seminar x Visuals/Graphic organizers X Learning Centers <input type="checkbox"/> PBL <input type="checkbox"/> Lecture <input type="checkbox"/> Discussion/Debate <input type="checkbox"/> Technology integration <input type="checkbox"/> Modeling <input type="checkbox"/> Other (list)		Guided Practices and Concrete Application: X Large group activity X Hands-on X Independent activity <input type="checkbox"/> Technology integration <input type="checkbox"/> Pairing/collaboration <input type="checkbox"/> Imitation/Repeat/Mimic <input type="checkbox"/> Simulations/Scenarios <input type="checkbox"/> Other (list) Explain:	
Standard(s) There is no specific standard for this lesson. This is a scaffolding lesson to reach: 2.-LS2-1: Plan and conduct an investigation to determine is plants need sunlight and water to grow. 2-LS2-2: Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.		Differentiation Below Proficiency: The lesson will be teacher lead to begin with. I will make sure that the students have ample amount of time to write and fill in what needs to be done. When it comes to the investigation of the lesson, they will be working in groups and using peer support if needed. Above Proficiency: Ask students to think about how the seed might grow. What will the plant look like? Approaching/Emerging Proficiency: Ask students to follow along with the charts given to them. Have them talk with a friend about what they are learning when finished. Modalities/Learning Preferences: Lesson will include hands-on activity, movement, visual and audio. Adjust as needed.	
Objective(s) At the end of this lesson, students will be able to describe, label, and recognize important characteristics of a seed though handling real seeds and labeling and coloring a diagram. Bloom’s Taxonomy Cognitive Level: comprehension, knowledge			
Classroom Management- (grouping(s), movement/transitions, etc.) The lesson will begin as a whole class lesson with students using clipboards at the carpet. Once we begin investigating seeds, they will get into their pod groups and move around the room.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) While at the carpet, students ae expected to follow the carpet expectations. While transitioning between groups, the students are expected to keep voices at an appropriate level and be focusing on the task at hand (investigation).	
Minutes	Procedures		
20	Set-up/Prep: Run off copies of the “Observing Seeds” and “What is a seed” paper for students to follow along and fill out. Set out stations in classroom with little bags of seeds. The night before the lesson, get some lima beans and soak them in water. Bring these with for the lesson.		
3	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) Bring students to carpet and let them know that we are going to be looking at seeds today, but before we do that we are going to move around a little bit. Have them crouch down and walk them though what is it like to grow as a plant. At the end of the movement they should be standing tall with their arms stretched up. “You’re going to be scientists today!”		
10-15	Explain: (concepts, procedures, vocabulary, etc.) Read through the “What is a seed?” page of the book. While reading, have students fill out the “A peek inside a seed” the seed page. They will label and color this page. Label along with them so they have some guidance. As you are reading about the seed, stop and ask the students questions along the way about what they are learning. Every time a vocabulary word is touched on, place it in the chart for the students to see. Have the student compare their seeds for 30 seconds. Have them discuss one more time what each part of the seed is and the information they learned on it. Bring them back and move on to the next step of the lesson: The Observing Seeds chart. Students can color the picture during their IE time of free time (or during the actual lesson if there is time).		

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30	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <p>The students will be working on the Observing seeds chart in their table pods. As they observe what the seeds are, they are drawing a picture of it, describing what it feels like, what it looks like and any other observation. I will have a 5-minute timer set for each section so the students know how long they need to work on each section. If the observing is going well, that time could decrease.</p> <p>Once timer goes off, have students move to the next observation spot. They need to transition smoothly and quietly, getting to work right away.</p> <p>Do this until each pod has been to each station. When we are done, come back to the carpet for discussion and wrap.</p> <p>***make sure to tell them expectations of a scientist and observer.</p>		
5	<p>Review (wrap up and transition to next activity):</p> <p>Bring students back to the carpet and discuss what they observed in the seed when they were actually touching them and describing them. Let them know that next week I want to come in and plant some seeds with them! Transition into next activity.</p>		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Formative Assessment: (linked to objectives)</p> <p>Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.</p> <p>Students can turn in their papers so teacher can check for understanding (did the label correctly, what were observations like, etc).</p> <p>Consideration for Back-up Plan:</p> <p>Have students answer a few questions as they leave at the end of the day as a verbal exit ticket. Check them off on a roster if they answered appropriately or are lacking.</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Summative Assessment (linked back to objectives)</p> <p>End of lesson:</p> <p>This lesson is part of a bigger unit, at the end of the unit is a selection of assessments. The teacher could also choose to administer a test.</p> <p>If applicable- overall unit, chapter, concept, etc.:</p> </td> </tr> </table>		<p>Formative Assessment: (linked to objectives)</p> <p>Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.</p> <p>Students can turn in their papers so teacher can check for understanding (did the label correctly, what were observations like, etc).</p> <p>Consideration for Back-up Plan:</p> <p>Have students answer a few questions as they leave at the end of the day as a verbal exit ticket. Check them off on a roster if they answered appropriately or are lacking.</p>	<p>Summative Assessment (linked back to objectives)</p> <p>End of lesson:</p> <p>This lesson is part of a bigger unit, at the end of the unit is a selection of assessments. The teacher could also choose to administer a test.</p> <p>If applicable- overall unit, chapter, concept, etc.:</p>
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<p>Reflection (What went well? What did the students learn? How do you know? What changes would you make?):</p> <p>I taught this lesson at the end of the week and after words I was comparing it to all the other lessons I have ever taught, and I think it might be the best lesson I have taught between both blocks of practicum. As I was talking with my teacher afterwards, she mentioned that it it was the best lesson I have taught all week and that she would teach it the exact same way I taught it. Walking away from this lesson I felt accomplish in that the students learned and they had fun while they were learning.</p> <p>At the beginning of the lesson I read a story called "The Watermelon Seed". Before I began the story, one students blurted that he had already read that book. Instead of cutting him off right away, I simply said "Then it will be a review for you!" As I was reading, I read with expression and the students loved it. The words on the pages are big enough that the students could see them, so they read along. I enjoyed that quite a bit because it showed me that they were paying attention to the story. At different points in the book I paused and asked questions. After the book was over I related the lesson to real life and had them talk about what seeds can do. A few of the students replied that they can be planted for food, you could use them as a decoration, or you could eat them right away. When the students mentioned that you can plant them, I told them that in the next week I wanted to come back into the classroom and plant seeds of our own. Originally, I was going to have this as part of this lesson, but after talking with Mrs. Sorum, I decided that it would be best to stick to the exploration of what seed are.</p> <p>As I was teaching students how I expected them to fill out their "Seed investigation" worksheet (which I do not have a digital copy of because Mrs. Sorum only had paper copies), I projected it on to the active board and modeled what I expected the students to do. I filled out the projection and left it as an example for the students to use as they filled out their own. I also made sure to talk about being respectful with the magnifying glasses that were used saying that I, and Mrs. Sorum, would be really sad if they were damaged or broken so they need to use them carefully. While I was teaching the lesson, I changed things as needed to better fit the class. A few students were sick, so one pod of desks was short; I had those two students join different pods so the number of students in each pod was either at three or four.</p> <p>As the students worked in groups, I went around with the lima beans and let the students feel the skin and investigate them. I then started peeling one seed for each group and had then identify the part of the seed that we went over. Each pod was excited that they got to feel the seeds and see closer inside of them. When I had done this on the Elmo camera, they all asked if they could hold the seed. I payed attention to when each pod was talking more than investigating and that is when I knew when each pod needed to move.</p> <p>Something I wish I would have changed is working with a student that has Down's syndrome. His aid is with him all the time, so she helped him out a lot, but if I were to redo this lesson, I would only have J do one investigation of seeds so the page wasn't so overwhelming to look at. I would have also made the chart bigger so it was easier for him to write in.</p> <p>This lesson did not include a formal assessment because it was an introductory lesson to the topic of plants. As the students were investigating, I walked around the classroom asking them questions on what each part of the seed was and what it was doing. When I had the lima beans that they could feel, I think the subject of seed parts really clicked more.</p> <p>** The note sheet what is a seed is located in my artifacts in the "PlantParts" file.</p> <p>**The individual page is "Peek inside a seed"</p>			

Name: _____

A peek inside a seed..

Directions: Color and label the parts of the seed.

root

leaves

seed coat

food

