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| **Grade 1** | **Lesson:** **Exploring Pumpkins – 2****Sprouting a Seed** | Reference to English Interconnections LessonExploring Pumpkins pg. 90 |
| **Science Standard(s): Standard IV, Objective 2** |
| **Content Objective(s):** | **Language Objective(s):** |
| Students will identify the parts of the seed with the class.*I can identify the parts of the seed with the class.* | Students will use the word “change” when describing the changes of their seed.I can use the word “change” when describing my seed. |
| **Essential Questions:**How do living things meet their needs in my neighborhood? | **Required Academic Vocabulary for Word Wall:****Listen:** seed, root, food for plant, seed coat**Speak:** change**Read:** **Write:** **Sentence Frames:** |
| **Materials:*** Pumpkin
* Pumpkin seeds
* Zipper bags
* Paper towels
* Document cam
 | **Additional Lesson Vocabulary:**Watch,  |
| **Lesson:**  | **Instructional Time: 25 minutes** |
| **Opening:** **(5 minutes)*** Soak some pumpkin seeds overnight in very damp paper towels.

**T: “Last time we talked about the life cycle of a pumpkin.”*** Show the students the pumpkin sort cards from last time.

**T: “Let’s review the different stages in the life cycle.”****T: “First is the seed. Everyone make the shape of a seed.”**S: *will make the shape of a seed with their fingers.***T: “What is this?”**S: *will say, “the seed.”***T: “Yes, this is a seed. After the seed comes the seedling. And the seedling becomes a plant.”****T: “Show me with your hands are pumpkin plants big or small?”**S: *will show big with their hands to represent the pumpkin plants.***T: “First we have a seed, then seedling, then the plant. After that our plant begins to flower. Everyone say flower with me.”**S: *will say, “flower” with the teacher.***T: “Now we only have two left. Both are pumpkins. Which comes first the green** (point at something green) **pumpkin or the orange** (point at something orange) **pumpkin?”**S: *will point at something green.***T: “Yes, the green pumpkin came first and then the orange pumpkin!”****T: “Repeat with me one more time the life cycle of a pumpkin, seed, seedling, plant, flower, green pumpkin and orange pumpkin.’**S: *will repeat the life cycle of a pumpkin with the teacher.***T: “Today we are going to learn about the parts of a pumpkin seed** (point at the picture of the seed)**. And then we are going to do an experiment with pumpkin seeds.”*** **Introduction to New Material (Direct Instruction): (6 minutes)**
* Use document cam to show the seed.

**T: “ Look at this pumpkin seed. Last night I soaked it to make it soft.”****T: “I am going to split it in half to let you see the parts of a seed.”*** Split the seed in half.

**T: “The inside of the seed is called the plant embryo. It has 4 parts.”*** Look at an image of a plant embryo to be able to identify the different parts (you can find one on the internet).

**T: “The first part is the seed. Turn to your neighbor and say seed.”**S: *will turn to their neighbor and say, “seed.”***T: “This is the seed. 2nd is the root. Everyone say it together. ROOT! We have a seed and a root. Say them both with me, seed, root.”*** As the students say seed and root with the teacher, the teacher needs to hold up one finger for seed and then 2 fingers for root. Continue this with 3 fingers for food for plant and 4 fingers for seed coat.

**T: “Next we have food for plant. Yes, this big part of the seed is the food needed for the plant. Tell your neighbor what this is.”**S: *will turn to their neighbor and say, “food for plant.”***T: “We have the seed, the root, food for plant and the last part the seed is the seed coat. Say them all with me again. Seed, root, food for plant and seed coat. Turn to your neighbor and say it one more time.”**S: *will turn to their neighbor and say, “seed, root, food for plant and seed coat.”***T: “Awesome! Now, I want you to draw the inside of the seed. Each of you will be given a Inside a seed paper. When I call on you, collect you paper and start drawing. You will have 4 minutes”*** Teacher will call on the students, pass out papers and help the students get started.

S: *will collect their papers and draw the inside of a seed.***T: “You have 1 minute left.”****T: “10.9.8.7.6.5.4.3.2.1. Time is up.”****T: “Before I collect your drawings, I need you to label your drawing as a seed.”*** Direct the students on how to write seed.

**Independent Practice: (5 minutes)****T: “Awesome! Now, I want you to draw the inside of the seed. Each of you will be given a Inside a seed paper. When I call on you, collect you paper and start drawing. You will have 4 minutes”*** Teacher will call on the students, pass out papers and help the students get started.

S: *will collect their papers and draw the inside of a seed.***T: “You have 1 minute left.”****T: “10.9.8.7.6.5.4.3.2.1. Time is up.”****T: “Before I collect your drawings, I need you to label your drawing as a seed.”*** Direct the students on how to write seed.

**Introduction to New Material (4 minutes)*** Make sure paper towels are already wet and folded and ready to be put into the ziplock bags.

**T: “Now that we know the life cycle of a pumpkin and the parts of a seed, we get to see seeds grow and change!”** **T: “I have a plastic baggy, a paper towel and a seed for each of you. I will first pass out the bags.”****T: “Now I will pass out the paper towels. The paper towels are wet, so make sure you put them right into the bags, like this. If I see any of you playing with them, I will have to take them away.”*** Teacher will pass out paper towels.

**T: “Lastly I will pass out the seeds. When I give you a seed I need you to place the seed into the fold of the paper towel.”*** Teacher will pass out the seeds.

**T: “Well done! Now we need to put our bags away** (on the counter, in a cubby …) **until tomorrow. We will observe the changes of the seed all week!”**S: *will put their bags where they belong.***Closing: (3 minutes)****T: “Good job today! Let’s review one more time very quickly. What are the stages of the life cycle of a pumpkin?”**S: *will say, “seed, seedling, plant, flower, green pumpkin and orange pumpkin.”** Help students as needed.

**T: “What are the parts of a seed?”**S: *will respond, “seed, root, food for plant and seed coat.”***T: “Well done! Tomorrow we will look at our seeds and draw their changes, so don’t forget about them.*** Each day for a week have the students observe and draw the changes of their seeds. (You can make it their self-start for that week)
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| **Assessment:** |
| **Drawings of the seed** |
| **Extra Ideas:** |
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