|  |  |
| --- | --- |
| Title/Focus | A Plant’s Needs |
| Overview | Students plan and conduct an investigation on a plant’s needs for survival. A See-Think-Wonder is used to encourage student thinking and questioning. One question is used for the investigation. Students utilize a science notebook to record observations and data. The books: Seeds and One Bean are used as read- alouds to help students confirm their findings. |
| Standards | **Science: LS2-1:** Plan and conduct an investigation to determine if plants need sunlight and water to grow.  **ELA.2.W.C11.2:** recall Information from experiences or gather information from provided sources to answer a question. **ELA.2.SL.C14.3:** produce complete sentences when appropriate to task and situations in order to provide requested details or clarification. **W.2.8:** Recall information from experiences or gather information from provided sources to answer a question |
| Materials/Advance Preparation Needed | **Materials/Advance Preparation:**   * 2 pots (same size) with soil in them * 2 of the same kind of plant (you can buy them at a local nursery or use plants from an existing garden, you can even use strawberry plants if you have them available) * Have a live and a dead plant to use for the See Think Wonder\* or pictures of a live and dead plant. * Make sure to have the books: Seeds by Colin Walker and One Bean by Anne Rockwell to read after the investigation is over so that students can confirm their conclusions.   Rockwell, Anne. *One Bean*. 1999. New York, New York: Walker and Company. Print.  Walker, Colin. *Seeds.* Wright Group/McGraw-Hill, 1996. Reprint. |
| Procedures/Steps (Emphasis on students making inquiry, e.g., posing questions/ problems and working towards answers and solutions) | **Introduction:**  Show students a live and dead plant (or a picture of a live and dead plant). Do a See Think Wonder. This is the first See Think Wonder of the school year, make sure to explain how to do a see think wonder and go over the expectations of students and the teacher, i.e., students talking one at a time, students listening when another person is speaking, etc. If students do not come up with this wonder, then the teacher will, “I wonder why one plant is dead and the other one is not?” Or something very similar to this question.  **Lesson:**  1. Take one wonder about one plant living and one plant dying and explain to students they are going to plan an investigation to see if they can find out why a plant would die or a plant would live. The teacher will help students decide to see if water and sunlight are a necessity for a plant to live. This is what the students will be investigating.  2. Students will record the wondering in their science notebooks. Discuss in small groups how they would plan an investigation to determine if sunlight and water is a necessity for plants to grow. Have a class discussion about their ideas and write up a plan as a class. Students will write the plan in their science notebook. 3. Plant the plants in the pots and put them where they go according to the plan. 4. Students will observe and record their observations with pictures and words for 2-4 weeks.  **Extension** If available students can use Soil Temperature Thermometer and Soil Moisture Meter to measure the temperature and moisture of the soil of each plant. This data can be recorded as part of their observation. You may want to encourage them to make a table to record these numbers. |
| Assessment (What will be the evidence of student learning?) | **Closure/Assessment**: After 2-4 weeks, students will answer their questions based on their plan and observations. We will discuss their answers as a class. Then we will read Seeds and One Bean as a class. As we read Seeds, we will discuss why a plant needs sunlight and water to grow. After reading, students will be able to confirm if the answers to their questions were correct or not. |



