

Lesson Components	Description
<p>Virginia Standard of Learning (write out relevant parts of the standard)</p>	<p>1.4 The student will investigate and understand that plants have life needs and functional parts and can be classified into certain characteristics. Key components include: a) needs (food, air, water, light, and a place to grow).</p>
<p>Rationale for Instruction (State rationale given to students for why this instruction may benefit them – write in student language)</p>	<p>Topic: Plant needs Rationale: It is important for us, as living things, to help other living things. In order to help plants, we must know what they need in order to survive or live well in their environment. We will investigate what a plant needs to grow so that you can learn how to take care of plants on your own. You will also seem some similarities between what a plant needs and what a person needs. Concept Definition (e.g., if you are teaching a lesson on adjectives, what are the critical attributes of adjectives): soil, water, air, and sunlight</p>
<p>Daily Objectives</p> <ol style="list-style-type: none"> 1. Include a condition (e.g., when provided with 5 math problems), an observable behavior, and a criterion for success (e.g., students will solve at least 4 problems correctly). 2. When appropriate, you may also include behavioral objectives. E.g., during the lesson, students will raise their hands and be acknowledged prior to speaking) 3. Objectives should be directly linked to evaluation procedures 	<p>When discussing plant needs, students will be able to correctly generate 2 out of 3 necessities (soil, water, or sunlight) with or without help from their “Recipe for a Plant” booklet.</p> <p>When planting the seeds, the students will be expected to remain on task with appropriate behaviors for using materials for three minutes at a time without specific prompting. However, general reminders will be used by the teacher (i.e. Be sure you clean up your soil from the table after you have planted your seed) to ensure correct behavior.</p>
<p>Evaluation/Monitoring (Description of how you will evaluate student achievement of lesson objectives; attach any quizzes, questions used for assessment, or worksheets; “Observation” – needs to include a checklist of specific behaviors observed)</p>	<p>The true evaluation of this lesson will not be until the seeds have been given time to grow and the students have been able to observe how the various conditions affect plant growth. If their initial prediction is incorrect, this is not a problem. However, if after a week or two the students do not understand that the plant needs water, sunlight, and soil to grow, a follow-up activity should be planned to revisit this concept.</p> <p>During the activity, observation will be the main component in evaluation. The teacher should be looking for the following characteristics in the students: -engagement in the activity as seen in eye contact and attention to the speaker</p>

	<p>-following of directions, particularly in how they should plant their seed according to their assigned condition</p> <p>-proper behavior when using the materials (soil, water, and seeds) as discussed prior to the activity</p> <p>-completion of this lesson for the day by writing their name on the Prediction Page</p> <p>To evaluate the lesson further, the teacher could individually ask students about their prediction. They should elicit more conversation by asking WHY the student thinks a specific condition will result in the most growth of the seed. As stated above, however, the completion of the lesson and concept attainment will not be able to be evaluated until the students have been given time to change their prediction based on observations.</p>
<p>Procedures (Description of steps you will follow during instruction, always beginning with an introduction and ending with some type of evaluation. This section should be very detailed – the person reading your procedures should be able to visualize what will be going on in the classroom and anticipate potential student responses, given your prompts.)</p>	<ol style="list-style-type: none">1. Begin by reminding students of the “Recipe for a Plant” booklet previously used during Writing time. Begin with a discussion of what a plant needs in order to grow. Ask the students, “What are some things a plant needs to grow? If you would like, you can use your ‘Recipe for a Plant’ booklet we made earlier.” Encourage all students to generate answers, but remind students to raise hands if they would like to answer. As the students answer the question, list the items on a large piece of paper.2. After generating the necessities of water, soil, and sunlight, introduce the activity by saying, “We are going to do a little experiment of our own using lima bean seeds to see if these things are really what we need to make a plant grow. Each table is going to have a different condition, meaning each table will have one of the needs taken out of its plant. For example, _____ table will plant the seed in soil and water it everyday, but it will be kept in the closet where it will receive no sunlight. Each table will have a different condition so that one will have no sunlight, one will have no dirt, one will have no water, and one will receive all of the necessities. After we have all planted our seeds and have discussed our prediction with our table (if time permits), we will meet on the carpet to write our predictions on the “Prediction Page.” Since you are making a prediction, it is alright if you do not know yet what seed will grow the most. That is why we are doing the experiment: to learn the needs of a plant.” After the students understand the different conditions, the teacher will dismiss the students to their desks in an orderly manner and remind students of the rules of using seeds and soil.3. Students will then be given the necessary materials for planting their seeds. They will be given approximately five to eight minutes to do so. The students will be encouraged to

	<p>use their 'Recipe for a Plant' booklet in order to see the procedure for planting a seed. While they are planting their seed, the teacher will walk around the classroom, helping those who need it. In addition, she will be scanning the room for any possible problems.</p> <ol style="list-style-type: none">The students will be reminded that once they have planted their seed and cleaned up their area, they may go to the carpet and discuss their predictions quietly with a partner. When all students have joined the group, the teacher will ask "Who thinks the plant without sun will grow the most?" and have students raise their hands to indicate their response. She will then write their names under the appropriate column. She will do this for each condition, making sure each student has responded once and only once.Once all students have responded, the teacher will conclude by saying, "Let's look at the Prediction Page. [Refer to and talk about what condition has the most names under it]. Everyday we will check on our plants to see which seed is growing the most. Some of our predictions may not be correct and that is ok. Doing experiments is fun because you get to investigate and figure out the answer by doing and observing."
<p>Materials/Equipment/Preparation (Listing of resources that will be used during the lesson – books, articles, newspapers, maps, handouts, etc. Attach copies of any worksheets.)</p>	<p>Large chart paper (x2: step one answers and Predictions Page) Marker Previously completed 'Recipe for a Plant' booklet (optional) Soil Lima bean seeds Plastic cups Water Predictions Page</p>

Evaluation of Differentiation

List and describe instructional modifications or adaptations made for student differences

(lesson pacing, selected content or materials, grouping, alternative modes for participation or evaluation, model of instruction, strategy instruction, etc.)

For example, students may be grouped homogenously in order to provide targeted instruction, or students may be grouped heterogeneously for cooperative learning. An alternative text or reading material may be provided for students need remediation or enrichment. Finally, the tasks required of a student may be different depending on student capability.

Gifted students will be encouraged to share their previously knowledge of plant life through other anecdotes elicited by the teacher, such as, "Has anyone ever grown a seed or plant in their home or yard?" In addition, gifted students could be given the option of writing about their predictions for their plants in their journals or on a separated piece of paper. If they would not like to use writing, they could also draw their predictions.

During the large group activity for introduction, students that have difficulty staying on task and listening may need to be positioned near the teacher in order to help them pay closer attention. They should be encouraged to be engaged by frequent eye contact and possibly asking questions, even if the student's hand is not raised.

Students with specific needs may need additional assistance, especially in planting their seed. An individual checklist will be given to students that have difficulty staying on task or following multiple step procedures. An aide or teacher should stay near students that have particular difficulty with this.