

Lesson Plan Template

<p>Grade: 2nd Grade</p> <p>Materials: <i>Desposable cups (4 per student)</i> <i>Zinnia seeds (4 per student)</i> <i>Dirt</i> <i>Spray bottle</i> <i>Sunlight</i> <i>Cabinet or locker</i></p>	<p>Subject: Science</p> <p>Technology Needed: <i>Computer</i> <i>Internet</i> <i>PowerPoint</i></p>
<p>Instructional Strategies:</p> <ul style="list-style-type: none"> € Direct instruction € Guided practice € Socratic Seminar € Learning Centers € Lecture € Technology integration € Other (list) 	<p>Guided Practices and Concrete Application:</p> <ul style="list-style-type: none"> € Large group activity € Independent activity € Pairing/collaboration € Simulations/Scenarios € Other (list) <p>Explain:</p>
<p>Standard(s)</p> <p>LS2.A.: Interdependent Relationships in Ecosystem, plants depend on light and water to grow.</p> <p>2.HS.2: Independently use a computing device to perform a variety of tasks.</p>	<p>Differentiation</p> <p>Below Proficiency:</p> <p>A student that is performing below proficiency will be able to complete the experiment, just as the other students will. But in their journal entries, I will not require complete sentences. Rather I will be looking for the students' thought process, whether that is drawn out in pictures or in short fragments of words. I will also provide these students with different options and examples on how to record the data they are finding. The students will also be paired up with students who are working above proficiency for the group discussion and the group powerpoint they will be making at the end of the lesson. These students will be expected to still add their observation and input but they will be able to receive help from their peers.</p> <p>How would you describe what you are seeing in the plant growth? (have to the student tell you verbally and then help them form the writing sentences)</p> <p>Above Proficiency:</p> <p>The students that are working above proficiency will be challenged to come up with their own data collection and organization method on their own. They will also be challenged to write full complete sentences about their observation. These students will be added to groups with students that are working below proficiency to help them understand. These students will be able to help the other students further their learning by acting as peer teachers. These Students will help make and present a powerpoint that will include more information than what we spoke about during class. Therefore, having to do research on the topic to further their own learning.</p> <p>What kind of predictions would you make if we changed more factors of the plant? For example, What you happen if we added salt to the dirt that the plant was growing in?</p> <p>Approaching/Emerging Proficiency:</p>
<p>Objective(s)</p> <p>The students will see and understand the effects that water and sunlight have on the growth of a plant. Students will be able to record and analyze their collected data in an organized manner. The students will be able to demonstrate their understanding through a group presentation and in their writing.</p> <p>Bloom's Taxonomy Cognitive Level: Create</p>	

Lesson Plan Template

	<p>these students will be verbally given different types of ways to collect and display the data that they collected. This will still make them have to interpret what data collection method they would like to use. They will we be required to write sentences containing all of the parts of a gramatically correct sentence. They will be expected to describe what they are seeing clearly with either pictures or with words. These students will be dispersed throughout the groups for the presentation becasue they will be able to learn from the students that are above proficiency and they will also be able to help further the learning for the students that are below proficiency by explaining what they know but also by encourageing the disscussion in the group.</p> <p>Modalities/Learning Preferences:</p> <p>Visual intelligence: Videos and and the student lead powerpoints will help the students see what is happening to the plants and the repetion in the powerpoints between the groups will help the students memorize and remeber the information they are learning.</p> <p>Spatial Intelligence: Planting and watering their own flowers the students will be provided with a hands on experience that they are more likely to remember doing.</p> <p>Linguistic Intelligence: The scientific journal that the students are keeping will allow the students to create and explain their own way of thinking while watching a plant grow.</p> <p>Interpersonal Intelligence: The students will work together within their groups to discuss and share different ideas on the differences that they saw in the growth of the flowers. This form of collaboration will help the students be successful and to provide further knowledge for them.</p> <p>Maybe having the students work with a partner to help them build and develop social skills and the skills to work together in a goup?</p> <p>Logical Intelligence: This task will show the students in real life what it takes to grow a plant and how the sunlight and water affects the growth of the plant. This will also help with the students understanading of technology through the powerpoint. They will also gather communication skills through this task.</p>
<p>Classroom Management- (grouping(s), movement/transitions, etc.) Group work: The students will all contribute to the project. They will use different colors within the powerpoint to show their thoughts and what they worked on. Class discussion: The students will each be given the opportunity to share their ideas with the class, and they will also have the time to ask questions, the students are expected to be respectful when others are speaking.</p>	<p>Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)</p> <ul style="list-style-type: none"> The students will work with a 3 warning system (this will the the system we always use so they will be familiar with this) The students will get 3 warnings if they are not following instruction and if they still after that are nopt following directions they will have to meet with me after class to discuss the acting out.

Lesson Plan Template

<p>Turn and talk: All students are to participate. They are not to get too loud and they are to stay on the topic that we are speaking about.</p> <p>Materials: The materials that we use must be used in a safe and clean manner. If the students are still making a mess after 3 warnings and direct instruction on what they are supposed to be doing, they will have the items taken away for the time being and I will plant or water the flower for them.</p> <p>How should we be acting when the materials are given out? Will we keep our work area neat and clean or will we be making a mess in our work spaces?</p>	<ul style="list-style-type: none"> ● The students will be provided with the specific materials for the experiment, and only enough for the experiment. They will be given exact instruction, in writing and verbally, on how to use the materials appropriately. ● At the beginning of the lesson the students will be clearly told what is expected of them and what will happen if they are not listening. ● The students will quickly come back to attention, ready to listen in an efficient manner. <p style="text-align: center;">Do we all understand what we should be doing and how we use our materials correctly?</p>
Minutes	Procedures
	<p>Set-up/Prep:</p> <ul style="list-style-type: none"> ● buy And bring in the materials that are needed to complete this experiment. ● Separate the dirt into different cups (4 for each child) ● Put four seeds into a plastic bag for each student ● Emptying out a shelf or a shelf in a cabinet for the plants are are not going to receive sunlight. ● Have a cleared space by the windows that the students are able to put the plants that will be in the sunlight.
	<p>Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)</p> <ul style="list-style-type: none"> ● Have the students turn and talk to each other about a time that they have witnessed the growth of a flower or when they planted flowers with their parents, siblings, or friends. Have some students share out these experiences for the class to hear. ● Bring the class back together with a quiet signal to allow the students to finish what they were saying. ● Begin the lesson portion of the class with a powerpoint for visuals but also being sure to give examples in the verbal lecture. ● Explain to the students that plants need water and sunlight to grow. Relate this to how they need water and food to grow big and strong, this is the same for the plants. <p style="text-align: center;">Have you ever planted a flower in the front garden or have you ever watched a plant grow in your house?</p>
	<p>Explain: (concepts, procedures, vocabulary, etc.)</p> <ul style="list-style-type: none"> ● Open the class with a video showing the process of growing for flowers. The video will peak the interest of the students, and also give them the base knowledge that they need to begin the lesson. ● Begin the lesson portion of the class with a powerpoint for visuals but also being sure to give examples in the verbal lecture. ● Explain to the students that plants need water and sunlight to grow. Relate this to how they need water and food to grow big and strong, this is the same for the plants. <p style="text-align: center;">What do you all expect to see the flower seeds do when we plant them? Will they grow really fast, will it take time, or will the flowers never grow?</p>
	<p>Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)</p> <ul style="list-style-type: none"> ● Introduce the students to each of the materials that will be getting used in this experiment. Allow the students to touch and play with each of the individual materials before combining them for the experiment. This will hopefully eliminate the mess that will happen. ● Have each student plant their seed in the dirt about an inch down, show them before the plant the seeds on their own to insure that they are going to do it correctly. ● Explain to the students that we will be watching the growth and the interactions that the water, sunlight and darkness affect the growth of the plants. ● Have the students place 2 of their plants in the direct sunlight and place 2 plants in the cabinet where there will be no light hitting the plants. ● Each of the students will keep track of their plants because the cups will have their names on them. This will make it so there is no argument between the students about which plant is theirs and which is not. ● For about 2 weeks the student will only water one of the plants that they put in the sunlight and one of the plants that they put in the dark. ● For about 2 weeks the students will record in their journals everyday what they are observing in the growth of their plants and how the water is affecting the plants in the sun and in the dark, recording the changes in the plants and in the soil surrounding the plants. ● At the end of the observation period, the students will turn in their journals for review, to understand the information that the students were able to understand. <p style="text-align: center;">What are you all seeing in the growth of our plants? Are the plants in the sun growing better than the ones in the dark? Is the water affecting the growth of the plants?</p>

Lesson Plan Template

Review (wrap up and transition to next activity):

- Based on the comprehension shown in the journal entries the students will be put into groups, so that there are students of every learning level in each group. Allowing for peer teaching and peer learning.
- In these groups the students will be asked to share their findings and look up information on why they think light has this kind of effect on the plant's growth and soil.
- The students will all participate in the presentation, each student will type in a different color to show what work they did to help the group.
- The students will present their findings to the class in the form of the powerpoint presentation. The repetition of the information that they are hearing will increase their ability to understand and retain the information that they are hearing.

What did you all learn from your classmates presentations? Did everyones plants grow and look the same or did they all grow in different patterns?

Formative Assessment: (linked to objectives)

Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.

I will be able to check in on the students learning, when we first plant the flowers, if they were able to fo it right.
The next check in will be when they tuen in their journal entries for review. Not only will I be able to see their understanding o th concept but it will also show the students writing and data collection skills.
The last check in for the students will be when they present to the class. The information that they were able to come up with to present to the class and their participation in their group.

What did we learn from growing the flowers? Did they all lookt the same in the end if they did it effect if they had water or snulight?

Consideration for Back-up Plan:

Back up plan id this does not work out is to present the information to the class via powerpoint, without the experiment. So to only have one set of the flowers that I am in control of so the students can all look at the same growth of the same flower so they all have the same information and the same observation to work off of for their group work.

Summative Assessment (linked back to objectives)

End of lesson:

The students know why plants need water and sunlight to grow. They also are able to collect data in a neat and informative way. They were able to write complete sentences about what they were seeing with proper grammar and punctuation. The students were able to work together ina group to present the information that they collected to the class in a clear and professional manner.

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?):

At the end of the unit the students should have learned why plants need water and sunlight to promote the growth of the plant. They will have also been able to work in a group well and presented the information that they found out in a clear manner.
In the future, I might not have all of the students plant their own plant, rather I would just plant one and have them all observe the same plants. This would save space in the classroom but it also would not allow the students to have the hands on experience they need.

Maybe have to students work in groups then it will save spac around the classroom and the students will also get to work together on growing the plants and continue to have these groups for the presentations?