

<p>Essential Question: How do butterflies survive over time in a changing environment?</p> <p>Focus Question: What happens to organisms when the environment changes?</p> <p>Phenomenon Question: How do organisms survive seasonal changes?</p>			
<p>Objective: Investigate plants to determine that they are also affected by seasonal changes.</p>		Materials: Pencil	Projected Slides: 326–339
<p>Share the following items with families in advance of the lesson.</p> <ul style="list-style-type: none"> Links: Lesson 19 Daily Video, Science Journal Lesson 19 Materials list Assignment: After watching the video, students update the anchor model and explanation, fill in the anchor chart, and use chart information to determine whether a plant survives seasonal changes. 			
Remote Learning Recommendations			
Type	Pacing	Activity	Notes
Hybrid (in-class synchronous and remote asynchronous) Asynchronous (in Sync)	10–15 minutes	Daily Video	<p>Video description:</p> <p>Students examine how plants respond to seasonal changes in their environment. Students conclude that plants are also affected by seasonal changes, and when conditions in their environment change, some organisms stay and survive, some move away, and some die.</p>
	10 minutes	Assignment	<p>The video asks students to update the anchor model and explanation, fill in the anchor chart, and use chart information to determine whether a plant survives seasonal changes.</p>
	15 minutes	Virtual Class Meeting (Optional): Science Discourse	<p>Ideally this meeting occurs after students watch the video and complete the assignment:</p> <ul style="list-style-type: none"> <i>Update Anchor Chart Remote Alternative</i> Display the anchor chart. Revisit the animals from Lesson 18, and facilitate a discussion about the survival strategies the animals use. Ask students to describe how the effects of environmental change relate to survival. As students share, paraphrase students' ideas and add a summary statement to the anchor chart. Send the updated anchor chart to all students. <i>Analyze Plant Observations Remote Alternative</i> Facilitate a discussion about the question What do your observations help you understand about how this kind of plant might survive seasonal changes? Listen to students' discussions for prior knowledge or misconceptions about plants. As students share, guide them to support their thinking with examples from the plant investigation. <p>Students should realize that there are differences in the plants' appearance and these differences relate to the amount of light each plant received.</p>

PhD Science in Sync™ Learn Anywhere Plan

			If students have difficulty articulating their observations or making inferences from their observations, focus on both the quantitative and qualitative observations students made and help students understand the cause and effect relationship between the amount of light the plants received and their appearance.
Synchronous	5 minutes	Launch	<p>Refer to Teacher Edition to conduct the lesson Launch (Projected slides 326–329).</p> <p>Give all students a chance to participate either in-person or virtually.</p>
	35 minutes	Learn	<p>Refer to Teacher Edition to conduct the lesson Learn (Projected slides 330–337).</p> <ul style="list-style-type: none"> • Investigate Seasonal Changes in Plants • Observe Plants • Analyze Plant Observations • Revise Anchor Chart <p>Send a copy of the revised class anchor chart to all students.</p> <p>Give all students a chance to participate either in-person or virtually.</p>
	5 minutes	Land	<p>Refer to Teacher Edition to conduct the lesson Land (Projected slides 338–339).</p> <ul style="list-style-type: none"> • Assign the Optional Homework <p>Give all students a chance to participate either in-person or virtually.</p>

Asynchronous	Synchronous	Hybrid
Remote students using in Sync with optional virtual class meeting	Some students in-class and some remote but all participating live	In-class students are synchronous and remote students asynchronous