

Lesson Topic: Plant Reproduction Strategies

Objective: Plants reproduce in a variety of ways, sometimes depending on animal behavior and specialized features for reproduction.

Students will be able to:

1. Explain that plants reproduce either sexually or asexually (or sometimes both)
2. Describe different specialized features of plants that aid in successful reproduction
3. Explain how certain animal behaviors aid in plant reproduction

Time Required: 95 minutes

Materials Needed:

- Teacher computer with internet access
- Student computer/tablet (1 per student) with internet access
- Plant Reproduction Strategies Handout (1 per student)
- Craft materials (various colors of tissue paper, construction paper, pipe cleaners, pom poms, tape, etc)

Teacher Preparation:

- Assign a Legends of Learning Instructional [Quick Play](#) playlist for the day(s) you will be teaching the lesson.
 - Instructional - Middle School - Plant Reproduction Strategies
- Assign a Legends of Learning Content Review [Quick Play](#) playlist for the day(s) you will be teaching the lesson.
 - Content Review - Middle School - Plant Reproduction Strategies
- Make copies of Plant Reproduction Strategies Worksheet (1 per student)

Engage (5 minutes):

1. Explain to students that plants use various strategies to increase their chances of reproduction. One of these strategies includes dispersing their seeds.
2. Show students [this](#) video (1:53 min) that shows one way plants disperse their seeds.
3. Ask students: “Why do plants need to disperse their seeds?”
 - a. Plants cannot move, so they rely on other methods to transport their seeds in order for them to germinate and grow into new plants.
4. Ask students: “What are some other ways you think seeds are dispersed besides what you observed in the video?”
 - a. Seeds are dispersed by wind, water, gravity (like an apple falling to the ground from a tree), and animals

Explore (20 minutes):

1. Have your students [sign in to Legends of Learning](#). Instruct students to complete the Instructional playlist.
2. As students complete the assigned game, students should fill out the Plant Reproduction Strategies Handout.
3. Assist students as needed during game play, pause playlist if you need to address

content or questions to the entire class.

Explain (20 minutes):

1. Review answers to the Plant Reproduction Strategies Handout by having a class discussion and/or showing the answers on the SmartBoard.

Elaborate (30 minutes):

1. Show students [this](#) table on the SmartBoard. Keep it up during this activity.
2. Read the three paragraphs above the chart aloud to students. Explain that different plants attract different pollinators based on the plant color, odor, shape, etc.
3. Divide students into groups of 2-3. Assign each student a pollinator from the table.
4. Students will work in their groups to create a flower that will attract their assigned pollinator using the craft materials provided. Give students 15 minutes to construct their flower.
5. Have each group present their flower to the class and explain why it will attract their assigned pollinator.
 - a. Students should design flowers based on the traits listed in the table for their assigned pollinator.

Evaluate (20 minutes):

1. Have your students [sign in to Legends of Learning](#). Instruct students to complete the Content Review playlist.
2. [Analyze student results](#) to determine what concepts need to be a focus for reteaching.

Additional Lesson Strategies:

- To use Legends for additional instruction, create a [custom playlist](#) with an [instructional game](#) and pre and post [assessment](#).
- To use Legends for a quick formative assessment, create a 5-question [assessment](#) in a [playlist](#).
- To use Legends for a student-directed experience, create a [targeted freeplay](#) playlist.
- Encourage students to play on their own at home in [Legends of Learning: Awakening](#) for a student-driven experience including avatars, battling, and quests all centered around topics they are covering in class.



Plant Reproduction Strategies

1. What are two ways plants increase their chances of reproduction?
2. What two ways do plants reproduce?
3. What are some specialized structures used for asexual plant reproduction?
4. What is a pollinator?
5. How do flowers attract pollinators?



Plant Reproduction Strategies

Teacher Key

1. What are two ways plants increase their chances of reproduction?
 - a. Develop specialized structures (through natural selection)
 - b. Depend on animal behavior or natural forces (like wind, water and gravity)
2. What two ways do plants reproduce? (note: some plants do both)
 - a. Sexually
 - b. Asexually
3. What are some specialized structures used for asexual plant reproduction?
 - a. Rhizomes, tubers, stolons
4. What is a pollinator?
 - a. Animals that move pollen from one flower to another
5. How do flowers attract pollinators?
 - a. Odor, shape, nectar, and color