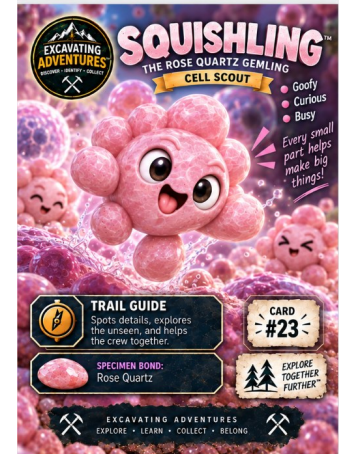


Plant & Animal Cells

Power Pack Plant with Squishling

Learning target

Compare plant and animal cell models.



Before you begin

Use the reference page and discussion prompts on their own, or open the optional browser adventure. No earlier lesson or physical kit is required.

For online play: use an internet-connected current browser with local storage enabled. Read the three-part Gemling briefing, answer the quick check, and apply the evidence at three checkpoints. Retry feedback supports review; results are not a secure test or gradebook.

Use for teacher-led review, science centers or partner practice. Independent readers may need support with the vocabulary below. The design target is grades 3-5; choose support based on the learner.

Vocabulary and concepts to discuss

Shared structures; plant cell walls; chloroplasts; food and energy overview

Open Power Pack Plant - direct lesson link

Scan the QR code or use the clickable link. This guide is usable offline; the adventure runs on an external educational website.



Plant & Animal Cells - key ideas

1. The first clues

Plant and animal cells share structures such as membranes and cytoplasm. Their similar needs do not make their structures identical.

2. How the clues connect

Plant cells have cell walls. Many green plant cells have chloroplasts that use light in food production; not every plant cell contains chloroplasts.

3. Our evidence record

Our leaf-cell diagram shows wall and chloroplasts; the animal-cell diagram does not. Compare these selected features instead of assuming all plant tissues look exactly like a green leaf.

Keep the science accurate

Cell parts and division are enrichment here, not a claim of universal K-5 NGSS coverage. No organelle lists, mitosis stages or biochemical pathways.

Apply the evidence

Use a specific observation from this lesson to explain one choice. Point to a clue, then connect that clue to a scientific idea.

Curriculum reference: <https://www.nextgenscience.org/dci-arrangement/ms-ls1-molecules-organisms-structures-and-processes>

Talk through the evidence

1. Which structure do both diagrams show?

Expected answer: Cell membrane

Reasoning: Plant and animal cells share structures such as membranes and cytoplasm. Their similar needs do not make their structures identical.

2. Which structure supports plant cells?

Expected answer: Cell wall

Reasoning: Plant and animal cells share structures such as membranes and cytoplasm. Their similar needs do not make their structures identical.

3. What do chloroplasts help with?

Expected answer: Using light to make food

Reasoning: Plant cells have cell walls. Many green plant cells have chloroplasts that use light in food production; not every plant cell contains chloroplasts.

4. Do all plant cells have chloroplasts?

Expected answer: No

Reasoning: Plant cells have cell walls. Many green plant cells have chloroplasts that use light in food production; not every plant cell contains chloroplasts.

Guide the discussion

Ask learners to name the evidence that supports their answer. If an answer differs, revisit the matching key idea on page 2 and invite a revised explanation.

Online rewards: this lesson grants one fixed digital Expedition Discovery. Five saved digital Gemling friends become available only after all six distinct subject lessons are complete, in any order. Digital rewards do not establish physical ownership.