PRESENTER SCRIPT · GRADE 5 · 5-PS3-1 · 5-LS1-1 · 5-LS2-1

Ecosystems & Food Webs: teacher script

Use with the Lesson presenter (room page -> Lesson presenter). Slides show only student cues; this script has what to say. Students need the printed lesson worksheet and a pencil.

Presenter keys: Right/left arrows change slides. N shows short notes. T pauses the timer. P picks a student. F is fullscreen.

Response routine: Students write each answer on their worksheet, then show it with fingers (1 = A, 2 = B, 3 = C, 4 = D). Scan the room before revealing.

SLIDE 1: TODAY'S TARGET — 1 min

Say	Today's learning target is: "I can model how energy and matter move through an ecosystem and predict what happens when part of it changes." Read it with me.
Say	Here is how you will know you have it: the success criteria. You will prove it on the exit ticket at the end of class.
Point to	The agenda and the key vocabulary. Tell students they need their notebook, guided notes page, and pencil.

SLIDE 2: WARM-UP — 0:00–0:08

Say	Turn to Part 2 of your lesson worksheet. Answer the three questions in complete sentences. You have 5 minutes of silent work. Go.
Do	Start the 8:00 timer. Circulate. At 5 minutes say: "Turn to your partner and compare answers for 2 minutes."
Look for	1) Any two: sunlight, water, air (carbon dioxide). 2) Example: acorn -> squirrel -> hawk. 3) It rots: decomposers like fungi, bacteria, and worms break it down into soil nutrients.
Say	Call on 2-3 students for questions 1 and 2, then reveal. Say: "We will come back to question 3 at the end of class."

SLIDE 3: HOOK — 1 min

Say	Read the question on the screen: "In a forest, a hawk eats a snake that ate a mouse that ate seeds. Where did the hawk's energy START?" Circle your prediction in Part 3 of your worksheet and write why. Then vote.
Background	Show (or describe) a Brown County State Park forest. "Name one living thing there. What does it eat? What eats it?" Build a chain on the board from student answers.
Do	Tap +1 for each vote. Do not give the answer. Say: "By the end of the lesson, you will be able to check your prediction."

SLIDE 4: LEARN 1: ENERGY STARTS WITH THE SUN — 3 min

Say	Producers (plants, algae) use sunlight to make food in photosynthesis. Almost all energy in an ecosystem starts with the Sun.
Worksheet	Say: "Part 5: fill in the blanks (A), do the task (B), write what your partner said (C), and answer the check (D)." Blank answers: PRODUCERS make their own food from SUNLIGHT. This process is called PHOTOSYNTHESIS. (tap "Show the missing words" after students try.)
Explore	Point to the model: the picture. Ask: "What do you notice?" Students do: Copy this chain and circle the producer: sunlight -> clover -> rabbit -> fox.
Turn and talk	Say: "Where does a hawk's energy really come from? Trace it all the way back." Start the 1:00 timer. Then pick a pair to share.
Check	Read the question aloud. Students write, then show fingers. Scan, then reveal. Answer: (A) Oak tree. Trees make their own food from sunlight.
If < 80% correct	Go back to the Explore box and model a second example out loud, then re-ask the check with a partner discussion first. See "Misconceptions to watch for" at the end of this script.

SLIDE 5: LEARN 2: ARROWS SHOW ENERGY FLOW — 3 min

Say	In a food chain, the arrow points from the food to the eater: grass -> rabbit means energy flows from the grass into the rabbit.
Worksheet	Say: "Part 6: fill in the blanks (A), do the task (B), write what your partner said (C), and answer the check (D)." Blank answers: Arrows point in the direction ENERGY flows: from the eaten to the EATER. (tap "Show the missing words" after students try.)
Explore	Students do: Fix this backward chain: hawk -> mouse -> grass.
Turn and talk	Say: "Why do you think arrows point toward the eater instead of toward the food?" Start the 1:00 timer. Then pick a pair to share.
Check	Read the question aloud. Students write, then show fingers. Scan, then reveal. Answer: (D) Algae -> mayfly -> bass. Energy flows from algae to mayfly to bass.
If < 80% correct	Go back to the Explore box and model a second example out loud, then re-ask the check with a partner discussion first. See "Misconceptions to watch for" at the end of this script.

SLIDE 6: LEARN 3: CONSUMERS AND DECOMPOSERS — 3 min

Say	Herbivores eat plants, carnivores eat animals, omnivores eat both. Decomposers (fungi, bacteria, worms) break down dead things and return nutrients to the soil.
Worksheet	Say: "Part 7: fill in the blanks (A), do the task (B), write what your partner said (C), and answer the check (D)." Blank answers: HERBIVORES eat only plants. DECOMPOSERS return nutrients to the SOIL. (tap "Show the missing words" after students try.)

Explore	Flip each card only after students guess: Deer = Herbivore; Hawk = Carnivore; Raccoon = Omnivore; Mushroom = Decomposer. Students do: Label each flip-card organism herbivore, carnivore, omnivore, or decomposer.
Turn and talk	Say: "Is a bear a herbivore, carnivore, or omnivore? What evidence would you need?" Start the 1:00 timer. Then pick a pair to share.
Check	Read the question aloud. Students write, then show fingers. Scan, then reveal. Answer: (B) Dead matter would pile up and soil would lose nutrients. Decomposers recycle matter.
If < 80% correct	Go back to the Explore box and model a second example out loud, then re-ask the check with a partner discussion first. See "Misconceptions to watch for" at the end of this script.

SLIDE 7: LEARN 4: FOOD WEBS CONNECT — 3 min

Say	Food chains connect into a food web. If one population changes, every population connected to it changes too.
Worksheet	Say: "Part 8: fill in the blanks (A), do the task (B), write what your partner said (C), and answer the check (D)." Blank answers: In a food web, a change in one POPULATION affects the others connected to it. (tap "Show the missing words" after students try.)
Explore	Run the simulation: Change one population and watch the web. Before each change, ask students to predict in their notes. Students do: Predict what happens to the bluegill when invasive fish arrive. Then watch the simulation.
Turn and talk	Say: "If all the frogs in a pond disappeared, name two populations that would change and explain why." Start the 1:00 timer. Then pick a pair to share.
Check	Read the question aloud. Students write, then show fingers. Scan, then reveal. Answer: (A) Mice increase. With fewer predators, the prey population grows.
If < 80% correct	Go back to the Explore box and model a second example out loud, then re-ask the check with a partner discussion first. See "Misconceptions to watch for" at the end of this script.

SLIDE 8: WORKED EXAMPLE (I DO) — 2 min

Say	Watch how I solve this. Write the final answer in Part 9 of your worksheet.
Think aloud	Draw: acorn -> squirrel -> red-tailed hawk. Ask: "If a disease wiped out the squirrels, what happens to hawks? To acorns?" Think aloud: hawks lose food and may decline; more acorns survive and more oak seedlings grow.
Reveal	Food chain: acorn -> squirrel -> red-tailed hawk. | Question: A disease wipes out the squirrels. What happens? | Step 1: Hawks lose a food source, so the hawk population may shrink. | Step 2: Fewer squirrels eat acorns, so more acorns survive. | Step 3: More acorns means more oak seedlings grow. One change ripples through the web.

SLIDE 9: WE DO — 2 min

Say	Now we solve one together in Part 10. Read the problem with me.
Do	Before revealing each step, ask: "What should we do next?" Take one answer, then tap "Show next step."
Steps	Grass is the producer. Less grass means less food for grasshoppers. | Fewer grasshoppers survive, so there is less food for frogs. | Frogs decrease, so snakes have less food. | The snake population will likely decrease too: the change ripples up the chain.
Answer	Snakes decrease

SLIDE 10: YOU DO — 2 min

Say	Now on your own: Part 11. Solve it with no talking. You have 2 minutes.
Answer	(D) Fewer seeds, because more mice eat them. Fewer owls -> more mice -> more seeds eaten.
Then	Students who got it: launch the room. Students who missed it: 3-minute reteach at your table, then start the room at the Explorer level.

SLIDE 11: WORK TIME: WHO CRASHED THE FOOD WEB? — 0:20–0:48

Say	Open Who Crashed the Food Web? on your device. Type your name, choose the level I assigned, and begin. Whisper voice with your partner only.
Do	Start the 28:00 timer and leave this slide up. Circulate with the answer key.
Checkpoints	At 10 minutes: stage 2 done. At 20 minutes: stage 4 done; give a 5-minute warning for the final lock and turn-in.
Turn-in	Students tap "Copy my work" and paste it into the Canvas assignment (Text Entry).

SLIDE 12: DEBRIEF — 0:48–0:52

Ask	Why does every food chain start with a producer? | Pick one organism from the activity. What would happen to the web if it disappeared? | Where does the energy in your lunch originally come from?
Say	Back to warm-up question 3 and our hook vote: were our predictions right? What evidence changed your mind?
Answer	It rots: decomposers like fungi, bacteria, and worms break it down into soil nutrients.

SLIDE 13: EXIT TICKET 0:52–1:00

Say	Clear your desk except a pencil. Work silently and on your own. For every answer, write "I know because..." and use evidence.
Do	Hand out the exit ticket. Start the 8:00 timer. Collect and sort with page 3 (Mastered / Approaching / Beginning).

MISCONCEPTIONS TO WATCH FOR

- "Arrows point to what an animal eats." Arrows show energy flow, pointing toward the eater.
- "Decomposers are not important." Without them, nutrients would stay locked in dead matter.
- "Plants get their food from the soil." Plants make food from sunlight, air (carbon dioxide), and water; soil gives nutrients.