

5E lesson plan example: Grade 5 ecosystems

Lesson	Where does the matter go? (food webs and decomposers)
Grade / subject	Grade 5 science · 55 minutes
Standard	NGSS 5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. (Use only where NGSS is adopted.)
Objective	Students construct and revise a food web with a three-level feeding pathway, trace matter among organisms and the environment, and justify a possible effect of removing an organism.
Materials	Grade 5 ecosystems student pack (12 woodland cards, environment labels, 6 reef cards, recording sheets, exit ticket); large paper per pair; pencils.

Phase	Time	Teacher does	Students do	Evidence / key questions
Engage	5 min	Project the woodland picture or write "grass - deer - wolf". Ask how the living things are connected and where an organism's material goes after it dies.	Share ideas with a partner; record a first guess.	Tentative ideas recorded on the board; no corrections yet.
Explore	18 min	Hand out 12 woodland organism cards per pair. Circulate with "Which card supports that arrow?" and "Where could this matter go next?"	Arrange the cards, draw arrows from food to eater, justify each link with the diet clues.	Each web shows at least two plants, two animals and the fungus.
Explain	12 min	Compare two student models. Name producer, consumer and decomposer. Add air, water/soil and dead-material labels; separate matter from energy (sunlight arrow).	Revise the model so matter returns to the environment through decomposers.	"Where does the matter in the oak come from?" Students mention air and water, not only soil.
Elaborate	12 min	Switch to six coral reef cards. Ask what could happen to algae and corals if grazing parrotfish disappeared.	Build a new web; write a two-step prediction and consider whether sea urchins change it.	Prediction uses the model ("because...") and is stated as a possibility.
Evaluate	8 min	Give the forest exit ticket. Score with the six-point rubric in the teacher guide.	Name two consumers that lose an oak food source; trace one matter pathway; distinguish matter from energy.	Sort tickets into Ready / Partial / Missed and plan the next warm-up.

For a 45-minute period, move the reef transfer (Elaborate) to the next lesson rather than shortening Explore. Printable cards and the teacher guide: draftmylesson.com/blog/5e-lesson-plan