inquisitive

GRADE 5 · LIFE SCIENCES · FAST PATH

Unit: Matter and Energy in Organisms and Ecosystems

5 lessons · 20 teaching days · 30 min per day except Day 6: 25 min · 595 min total · ↳ Time-saving teaching move · ★ Individual checkpoint · Teaching days are not consecutive calendar days.

1. Energy for Living Things

PHENOMENON QUESTION
Why do animals need to eat?

OUTCOME
I can describe where the energy in our food comes from.

TIME
3 days · 30 min per day
90 min total

DAY 1 · 30 MIN

- 10 MIN — Activity 1
- 10 MIN — Activity 2
  ↳ Collect one reason per pair, then group similar ideas.
- 10 MIN — Activity 3

DAY 2 · 30 MIN

- 5 MIN — Activity 4: Part 1
- 10 MIN — Activity 4: Part 2
- 8 MIN — Activity 5
  ↳ Have partners discuss both questions. Take one pair's response per question.
- 7 MIN — Activity 6
  ↳ Complete as a class.

DAY 3 · 30 MIN

- 15 MIN — Activity 7: Part 1 · ★
  ↳ Limit the choice to a diagram or flowchart.
- 10 MIN — Activity 7: Part 2 · ★
- 5 MIN — Activity 10

2. Plant Matters

PHENOMENON QUESTION
Do plants need soil to grow?

OUTCOME
I can show evidence that plants get the materials they need mostly from air and water.

TIME
4 days · 30 min per day*
115 min total
***Day 6: 25 min**

DAY 4 · 30 MIN

PREP Pre-cut the bottle. Gather four similar seedlings and investigation materials. SCHEDULE Teach Day 4 two weeks ahead. Follow the investigation's watering instructions.

- 10 MIN — Activity 1
- 8 MIN — Activity 2: Part 1
- 12 MIN — Activity 2: Parts 2–3 · Start

DAY 5 · 30 MIN

SCHEDULE Split Day 5: observe for 10 min one week after Day 4, allowing plants time to grow. Teach Activity 3 (20 min) just before Days 6–7.

- 10 MIN — Activity 2: Parts 2–4 · Week 1
- 8 MIN — Activity 3: Part 1
- 12 MIN — Activity 3: Part 2

DAY 6 · 25 MIN

SCHEDULE Two weeks after Day 4: teach Days 6–7 after Activity 3 in consecutive sessions. Teach other lessons while plants grow.

- 10 MIN — Activity 2: Parts 3–4 · Week 2
- 15 MIN — Activity 4

DAY 7 · 30 MIN

- 30 MIN — Activity 5 · ★

3. Nature’s Recyclers

PHENOMENON QUESTION
Who are nature's recyclers?

OUTCOME
I can describe how some organisms break down waste and dead organisms.

TIME
4 days · 30 min per day
120 min total

DAY 8 · 30 MIN	DAY 9 · 30 MIN	DAY 10 · 30 MIN	DAY 11 · 30 MIN
PREP Set out a class plate of fresh, juicy fruit and a water spray. SAFETY Do not touch or smell rotting fruit.	**SCHEDULE** Allow a few days after Day 8; teach when the fruit shows change.	15 MIN **Activity 6**	25 MIN **Activity 8: continued · ★** Complete the three sentence stems.
5 MIN **Activity 1: Part 1**	5 MIN **Activity 2: continued** Later observations and disposal.	10 MIN **Activity 7**	5 MIN **Activity 12**
10 MIN **Activity 1: Part 2** ↳ Pairs discuss each prompt; collect one distinct idea per prompt.	8 MIN **Activity 4: Part 1**	5 MIN **Activity 8 · ★** Draw two decomposers; continue the sentences on Day 11.	
5 MIN **Activity 2** Set up fruit; record initial observations.	7 MIN **Activity 4: Part 2**		
10 MIN **Activity 3**	10 MIN **Activity 5** ↳ Model one arrow; partners explain the remaining arrows simultaneously.		

4. A Web of Life

PHENOMENON QUESTION
How are living things in the Amazon connected?

OUTCOME
I can use a model to describe the movement of matter in a healthy ecosystem.

TIME
6 days · 30 min per day
180 min total

DAY 12 · 30 MIN	DAY 13 · 30 MIN	DAY 14 · 30 MIN	DAY 15 · 30 MIN	DAY 16 · 30 MIN	DAY 17 · 30 MIN
15 MIN **Activity 1**	10 MIN **Activity 3**	10 MIN **Activity 5: continued** Explain how matter moves through the web.	**PREP** Print and cut the source organism cards. Set out yarn, large paper and shared markers.	30 MIN **Activity 8: continued** Build the model; keep it for A Damaged Web.	28 MIN **Activity 9 · ★** ↳ Pairs of groups share simultaneously; each student records their own responses.
15 MIN **Activity 2**	10 MIN **Activity 4** ↳ Model one food chain, trace another together, then have students explain the remaining connections.	20 MIN **Activity 6**	20 MIN **Activity 7**		2 MIN **Activity 12**
	10 MIN **Activity 5: start** Stop after interpreting the arrow colors.		10 MIN **Activity 8: start** Stop after research.		

5. A Damaged Web

PHENOMENON QUESTION
What happens when a food web is broken?

OUTCOME
I can describe one example of how the cycling of matter in an ecosystem can be damaged.

TIME
3 days · 30 min per day
90 min total
Assessment: Anchor Maps and Autogradable Summative Assessments are not included within this pacing guide.

DAY 18 · 30 MIN	DAY 19 · 30 MIN	DAY 20 · 30 MIN
PREP Set out the saved Amazon organism cards, yarn and sticky notes.	5 MIN **Activity 2: continued** Connect the consequences across the ecosystem.	10 MIN **Activity 5** ↳ Model the first connection, explain one together, then have pairs explain remaining effects.
20 MIN **Activity 1**	15 MIN **Activity 3**	10 MIN **Activity 6: Part 1 · ★**
10 MIN **Activity 2: start** Record immediate effects of rainforest clearing. ↳ Take one effect from each pair. Record repeated ideas only once.	10 MIN **Activity 4** ↳ Model one cause and effect; partners explain the remaining examples.	10 MIN **Activity 6: Part 2 · ★**