inquisitive

GRADE 1 · ENGINEERING DESIGN · FAST PATH

Unit: Farm To Family

Lessons in unit: 3 · 9 days · 15–30 min per day · 210 min total · ↳ Time-saving teaching move · ★ Checkpoint

1. Food, Glorious Food!

PHENOMENON QUESTION
Where does your food come from?

OUTCOME
Recognize that we get food from plants and animals.
Identify that food products solve an important problem: we need food to survive.

TIME
3 days · 25 / 30 / 30 min
85 min total

DAY 1 · 25 MIN

- 15 MIN — Activity 1
- 10 MIN — Activity 2

DAY 2 · 30 MIN

- 15 MIN — Activity 3
- 10 MIN — Activity 4
- 5 MIN — Activity 5
  ↳ Model bread and cheese, then partners explain the other foods.

DAY 3 · 30 MIN

- 10 MIN — Activity 6
  ↳ Complete the labeling and sorting as a class.
- 20 MIN — Activity 7

2. In the Making

PHENOMENON QUESTION
Where do your clothes come from?

OUTCOME
Identify everyday designed items produced from fibers sourced from plants and animals.
Understand that designed products offer a solution to a problem.

TIME
3 days · 20 / 15 / 20 min
55 min total

DAY 4 · 20 MIN

- 5 MIN — Activity 1
- 15 MIN — Activity 2

DAY 5 · 15 MIN

- 15 MIN — Activity 3
  ↳ Complete the three drawings as a class, then partners explain the sequence. I would have pictures of sheep, cotton plant, bamboo, pine trees posted to help remind students of what they saw in the video. Students can go back to the 'Undone" if needed. I'm not sure how many 1st graders will know that sheep are "shorn" to get their wool to make clothing and textiles. Depending on the area, they may have never seen a cotton plant or bamboo and know that they are the raw materials for many everyday items. This activity may take more than 15 minutes.

DAY 6 · 20 MIN

- 20 MIN — Activity 4

3. It's in the Design

PHENOMENON QUESTION
What can we make to protect an animal?

OUTCOME
Identify a need or problem that needs a solution.
Develop and evaluate a simple design solution to the problem.

TIME
3 days · 20 / 25 / 25 min
70 min total
Assessment: Anchor Maps and Autogradable Summative Assessments are not included within this pacing guide.

DAY 7 · 20 MIN	DAY 8 · 25 MIN	DAY 9 · 25 MIN
10 MIN Activity 1	10 MIN Activity 3	**PREP** Set out shared trays of material samples, water cups, and eyedroppers.
10 MIN Activity 2	15 MIN Activity 4 Parts 1–2	5 MIN Activity 4 Part 3
		20 MIN Activity 4 Part 4