inquisitive

GRADE 2 · ENGINEERING DESIGN · FAST PATH

Unit: Test Kitchen

Lessons in unit: 4 · 10 days · up to 30 min per day · 265 min total · ↳ Time-saving teaching move · ★ Checkpoint

1. Kitchen Nightmares

PHENOMENON QUESTION
Why does some food need to be kept cold?

OUTCOME
Follow the procedure for making a cooler and identify the technology involved in keeping the food safe.

TIME
3 days · up to 30 min per day
80 min total

DAY 1 · 30 MIN

10 MIN	Activity 1
10 MIN	Activity 2
5 MIN	Activity 3 ↳ Complete as a class to avoid individual device setup.
5 MIN	Activity 4 ↳ Match and explain the arrows together on one class diagram.

DAY 2 · 30 MIN

PREP Cut foil and lining pieces; set out one materials tray per group. SCHEDULE Split Activity 6 across the same day: predict before observing, then record at ½, 1, 1½ and 2 hours. The 15 minutes include all five check-ins.

15 MIN	Activity 5
15 MIN	Activity 6

DAY 3 · 20 MIN

20 MIN	Activity 7

2. No Rotten Apples

PHENOMENON QUESTION
Would you eat a rotten apple?

OUTCOME
Define a problem (how to stop fruit from turning brown) and explore and investigate solutions to the problem.

TIME
2 days · up to 30 min per day
60 min total

DAY 4 · 30 MIN

15 MIN	Activity 1
5 MIN	Activity 2 ↳ Model one picture, then pairs explain how food is kept safe in the others.
10 MIN	Activity 3

DAY 5 · 30 MIN

PREP Slice apples just before use. Prepare honey water and label three bowls per group. SCHEDULE Allow 30 minutes between setup and observation. Complete both blocks on the same calendar day.

5 MIN	Activity 4 ↳ Build one class flowchart for a familiar food.
5 MIN	Activity 5, Part 1 Set up; pause before observation.
20 MIN	Activity 5, Parts 1–2 Observe, then complete all four written responses.

3. Useful Or Not?

PHENOMENON QUESTION
Which kitchen gadgets are useful?

OUTCOME
Describe the usefulness of kitchen gadgets.
Generate, develop, and record a design for a new kitchen gadget.

TIME
2 days · up to 30 min per day
45 min total

DAY 6 · 25 MIN

5 MIN — Activity 1

10 MIN — Activity 2

10 MIN — Activity 3
↳ Discuss all four questions as a class instead of writing separate responses.

DAY 7 · 20 MIN

20 MIN — Activity 4

4. Make It Last

PHENOMENON QUESTION
How do chefs keep their clothes clean?

OUTCOME
Conduct an experiment to find out which sauce stain is the most difficult to remove.

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

DAY 8 · 30 MIN

10 MIN — Activity 1

20 MIN — Activity 2

DAY 9 · 20 MIN

10 MIN — Activity 3
↳ Collect the three reasons orally on one class chart after the video.

10 MIN — Activity 4, Parts 1–2
Complete the aim and materials list; read the procedure. Save testing for the next day.

DAY 10 · 30 MIN

PREP Set out matching cloth pieces, the three source sauces and washing containers.

20 MIN — Activity 4, Part 3

10 MIN — Activity 5
↳ Use partner talk for Think, Feel and Care, then record one class response for each.