LESSON 7

Food System Action Projects

Be the difference that makes a difference.

GRADE	TIME	FINAL PRODUCT
Grades 6–8	Four class periods, 50–60 min each	Team Action Project + a 3-minute pitch

BIG IDEA

Small actions can shift larger systems. Across a 4-day design sprint, students discover food system challenges, define one their team can tackle, design a realistic action, and deliver a pitch. The activity builds habits that informed choices and collective action can nourish people and planet.

ESSENTIAL QUESTION

How can our actions help create a healthier food system for people, communities, and the environment?

ACTIVITY OVERVIEW

From issue to action.

Food acts as a mirror of our values and culture. When we sit down for a meal, we become part of a much larger story: a cooperative web of people and places that bring food to our community. The food system offers abundant opportunities for young people to take action and make a difference. Even small steps can lead to meaningful change.

This lesson is a 4-day design sprint that scaffolds students from awareness to action. Day 1 (Discover) opens with a Food System Issues brainstorm and an Issues Menu of 10 starter challenges. Each student maps one issue using the Issue Web. Day 2 (Define) forms teams around shared interests, synthesizes team thinking, and produces a “How Might We…” statement that names a specific problem the team will work on.

Day 3 (Design) generates many possible solutions, then narrows them through a Feasibility Filter. Teams choose ONE project and begin the Action Project Plan. Day 4 (Deliver) finalizes the plan and pitch slides, then teams present 3-minute pitches to peers, and close with a personal commitment to a next step. Optional Day 5: implementation kickoff. Teams begin actually doing the project, with the teacher coaching and the class committing to a follow-up check-in 2–4 weeks later.

STANDARDS ALIGNMENT

Four subjects, one lesson.

SCIENCE (NGSS)

What students do

Evaluate competing design solutions for maintaining biodiversity and ecosystem services, applied to food system action choices. Apply scientific principles to design methods for monitoring and minimizing human impacts on the environment. Analyze interactions among living and nonliving components of food systems.

Three-dimensional emphasis. SEPs: Asking Questions and Defining Problems; Designing Solutions; Obtaining, Evaluating, and Communicating Information. CCCs: Systems and System Models; Cause and Effect; Stability and Change.

MS-LS2-5 MS-ESS3-3 MS-LS2-1

ELA (CCSS)

What students do

Integrate information from texts, images, and data to define a food system challenge. Engage effectively in collaborative team deliberation. Present claims and findings with relevant evidence and clear organization. Write arguments supported by evidence for the team pitch.

RST.6-8.7 SL.6.1/7.1/8.1 SL.6.4/7.4/8.4 WHST.6-8.1

SOCIAL STUDIES (C3)

What students do

Explain how economic decisions affect the well-being of individuals, businesses, and society. Apply civic principles by deliberating in a team to address community challenges. Describe ways individuals and groups can take action to address community challenges.

D2.Eco.1.6-8 D2.Civ.7.6-8 D2.Civ.14.6-8

HEALTH (NHES)

What students do

Analyze how food systems influence personal and community health. Analyze how community factors influence food and health behaviors. Advocate for actions that promote healthier communities.

NHES 1 NHES 2 NHES 8

BACKGROUND FOR TEACHERS

What to know before you teach.

Action projects work best when students choose problems they actually care about.

Watch for scope. Students often pick problems too big to address (“end world hunger”); the Feasibility Filter and Day 2 “How Might We” pull them toward problems that are local, specific, and within reach.

VOCABULARY

Two sets, one timing rule.

Introduce these terms across Days 1 and 3.

SET A, DAY 1



food system

All the people, places, and steps involved in bringing food to our community.



leverage point

A place in a system where a small change can lead to a big result.

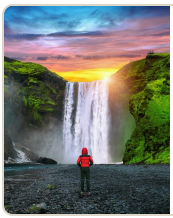


action project
A project that young people plan and lead to make a positive change in a system.

SET B, DAY 3



feasibility
How realistic and achievable a project is given the time, materials, and people available.



impact
The meaningful change a project creates for people, communities, or the environment.

MATERIALS & PREPARATION

What you'll print and cue up.

MATERIALS

- ☐ **Visual glossary slides**: one per term.
- ☐ **Food System Issues Menu**: printable PDF, 1 per student or projected; 10 starter challenges + Other.
- ☐ **Action Project student pages**: printable PDF, 1 per student, in four parts. Part 1 Issue Web, Part 2 How Might We statement, Part 3 Solution Brainstorm + Feasibility Filter, and Part 4 Action Project Plan.
- ☐ Chart paper or large sticky-note pads for Day 2 team Issue Web synthesis.
- ☐ **Sticky notes**: small pad per student for Day 3 brainstorm and Day 4 pitch feedback.
- ☐ **Pitch slide template**: Google Slides: 4 slides per team for Day 4.
- ☐ **Optional**: Peer Rubric: printable PDF, 1 per student; structured peer feedback during Day 4 pitches.

PREPARATION

- ☐ Print or queue the Food System Issues Menu (1 per student or projected).
- ☐ Print the Action Project student pages (1 per student): all four parts.
- ☐ Set up the pitch slide template (4 slides per team).
- ☐ Decide whether you'll use the Peer Rubric on Day 4: print copies if so.
- ☐ Reserve wall space for Day 2 team Issue Web posters.
- ☐ Decide team size (3–4 is ideal) and how teams will form on Day 2: by shared interest is recommended; by skill mix is the alternative.

DAY 1

Discover: what's worth working on?

50 minutes

1 Food System Issues brainstorm

11 MIN

TEACHER

- Open with a question on the board: what bothers or excites you about how food works in our school or community?
- Silent journal: students jot 3+ ideas in their notes.
- Whole-class popcorn share: capture issues on the board. Don't filter yet; accept all.
- Pair share: which issue on the board pulls you in most? Why?
- Brief vocab moment: introduce Set A: food system, leverage point, action project.

STUDENTS

Silently write 3+ things that bother you or excite you about food in our school/community.

Share aloud; add to the class brainstorm.

Pair share: which issue pulls you in most?

2 Food System Issues Menu

10 MIN

TEACHER

- Distribute or project the Food System Issues Menu: 10 starter challenges + Other.
- Walk through each issue quickly: briefly describe what it looks like at school or in a community.
- Cross-reference with the brainstorm board: which Menu issues came up?
- Direct students to pick ONE issue from the Menu (or write their own under Other) for Part 1.

STUDENTS

Read the Menu and compare to your brainstorm.

Choose ONE issue (or write your own under Other) for Part 1.

3 Part 1: Issue Web

22 MIN

TEACHER

- Distribute the Action Project student pages (all four parts).
- Walk through Part 1: Issue Web. Show a sample on the board: center = issue, arrows out to causes, who's affected, related issues, and what's already being tried.
- Set a visible timer at 18 min. Students work individually.
- Circulate. Coach toward specificity: who exactly is affected, and what's already being done locally?
- 2 min before time: ask each student to circle the part of their web that excites them most.

STUDENTS

Read Part 1 instructions.

Build your Issue Web: causes, affected groups, related issues, what's already happening.

Circle the part that excites you most.

4 Closing + preview Day 2

7 MIN

TEACHER

- Quick share: invite 3–5 students to share their issue and one connection from their web.
- Capture issue names on the board as a class **“interest map”**; students will see who else is interested in their topic ahead of tomorrow’s team formation.
- Preview Day 2: tomorrow students form teams around shared interests, synthesize their thinking, and write a **“How Might We…”** statement to narrow the problem.
- Closing reflection: students write one sentence: **“My issue matters because…”**

STUDENTS

Share your issue and one connection from your web.

Notice who else is interested in your topic.

Write: “My issue matters because…”

DAY 2

Define: what specifically can we tackle?

50 minutes

1 Form teams around shared interests

6 MIN

TEACHER

- Re-display the class interest map from Day 1.
- Direct students to find 2–3 classmates who share their issue. Teams of 3–4 are ideal.
- If a student is alone with an unusual issue, help them join the closest related team or pair them with one other student.
- Each team finds a workspace and brings their Issue Webs.

STUDENTS

Find 2–3 classmates with a shared interest and settle into a workspace with your Issue Web.

2 Team Issue Web synthesis

16 MIN

TEACHER

- Distribute chart paper or a large sticky-note pad to each team.
- Direct teams to combine their individual Issue Webs into a TEAM Issue Web on chart paper; same structure: center = issue, arrows out to causes, who's affected, related issues, what's already being tried.
- Set a visible 12-min timer.
- Circulate. Coach teams to synthesize, not just append: ask where their webs agree and where they push back on each other.
- 3 min before time: ask each team to circle 2–3 most promising leverage points (places where a small action could help).

STUDENTS

Combine your individual Issue Webs into one team Issue Web on chart paper.

Synthesize, don't just append. Look for agreement and disagreement.

Circle 2–3 most promising leverage points.

3 How Might We: intro + practice

10 MIN

TEACHER

- Introduce two key terms students will use today: a How Might We statement (a short, action-oriented question that turns a vague issue into a specific problem) and stakeholder (a person or group affected by the issue or who could help change it).
- Show the HMW formula on the board: How might we ___ (action verb) ___ (specific outcome) for ___ (specific stakeholders) so that ___ (specific change)?
- Show two sample HMWs:
  - Weak: **"How might we end food waste?"**
  - Strong: **"How might we set up a share table in our cafeteria for students who don't want their lunch so that less food gets thrown away?"**
- Discuss what makes the second one stronger: specific stakeholders, specific action, specific change, doable.

STUDENTS

Listen to the How Might We definition and the formula.

Compare the weak vs. strong HMW examples. Why is the second one better?

4 Part 2: Team HMW drafting

12 MIN

TEACHER

- Direct teams to draft 2–3 HMW statements on Part 2 of their student page.
- Set a visible 10-min timer.
- Circulate. Push teams to specificity: who? what change? doable in a month?
- 2 min before time: ask each team to underline their strongest HMW statement.

STUDENTS

Draft 2–3 HMW statements as a team on Part 2.

Make each specific: who, what action, what change.

Underline your strongest HMW.

5 Gallery + closing

6 MIN

TEACHER

- Direct teams to post their chart paper Team Issue Webs around the room (with the HMW written on top).
- Quick gallery walk: students circulate, reading other teams' HMWs.
- Closing: preview Day 3: students will design solutions and pick ONE project to plan.

STUDENTS

Post your team Issue Web + HMW.

Walk past at least 3 other teams' HMWs.

Notice what's specific and what could be sharper.

DAY 3

Design: many ideas, then choose one.

50 minutes

1 Re-orient + revisit the Issues Menu

6 MIN

TEACHER

- Teams re-form with their materials.
- Direct teams back to the Food System Issues Menu: each challenge ends with ideas for actions a student team could take.
- Direct teams to reread the 2–3 challenges that connect to their HMW.
- Highlight: the ideas are inspiration, not templates; teams design their own.

STUDENTS

Re-join your team and reread the 2–3 Issues Menu challenges that connect to your HMW.

Notice the ideas for action in each one.

2 Solution Brainstorm: divergent thinking

10 MIN

TEACHER

- Direct teams to Part 3 of the student page: Solution Brainstorm.
- Set a visible 8-min timer.
- Rules: aim for QUANTITY over quality. Write at least 10 ideas. Wild ideas welcome. No critique yet.
- Circulate. If a team stalls, suggest a category they haven't tried: education, design, policy, story-telling, partnerships.

STUDENTS

Brainstorm at least 10 solution ideas on Part 3.

Quantity over quality. Wild ideas welcome. No critique yet.

Add ideas inspired by the Issues Menu.

3 Feasibility Filter

13 MIN

TEACHER

- Introduce Set B vocabulary: feasibility and impact.
- Direct teams to the Feasibility Filter on Part 3. Score the top 4–5 ideas on four dimensions (1–5 each):
  - Impact (how much would it help?)
  - Doable (can we actually do this?)
  - Time (fits within 4–6 weeks?)
  - Student-led (can students drive this?)
- Sum the four scores. Highest total wins.
- Direct teams to score 4–5 ideas and pick the ONE with the highest score (or highest score plus team consensus).
- Set a visible 12-min timer.
- Circulate. Coach teams with low-feasibility ideas to narrow the scope so it fits in 4 weeks.

STUDENTS

Score your top 4–5 ideas on the Feasibility Filter (4 dimensions, 1–5 each).

Pick the ONE project with the highest score (or score plus team consensus).

Mark your chosen project clearly.

4 Part 4: Begin the Action Project Plan

18 MIN

TEACHER

- Direct teams to Part 4: Action Project Plan. Fill in:
  - Goal: what specifically will we accomplish?
  - Steps: what are the 4–6 steps?
  - Materials: what do we need?
  - People: who else needs to be involved (cafeteria manager, principal, students, parents, local partner)?
  - Success metric: how will we know it worked?
  - Timeline: when does each step happen?
- Set a visible 15-min timer.
- Circulate. Push teams toward specificity: who's the first person they'll talk to, and when?
- 3 min before time: have each team identify ONE concrete first action they could do this week.

STUDENTS

Complete Part 4: Action Project Plan.

Be specific on each section: goal, steps, materials, people, metric, timeline.

Identify ONE concrete first action for this week.

5 Preview Day 4

3 MIN

TEACHER

- Preview Day 4: teams finalize plans, build a 4-slide pitch deck, and deliver a 3-minute pitch with peer feedback.
- *Optional:* invite an outside guest (cafeteria manager, principal, community partner) to sit in on Day 4 pitches.

STUDENTS

Note what your team still needs to finish.

Plan who will draft what before Day 4.

DAY 4

Deliver: pitch the plan.

60 minutes

1 Finalize plan + build pitch slides

20 MIN

TEACHER

- Teams re-form.
- Open the pitch slide template (4 slides per team): 1. The problem (your HMW) 2. Your solution (what will you do?) 3. Why it matters (who's affected, what changes?) 4. The plan (steps, people, timeline, success metric).
- Set a visible 18-min timer.
- Circulate. Help teams compress to the essentials: what's the one thing classmates must understand?

STUDENTS

Finalize your plan and build the 4-slide pitch deck.

Decide who will speak each section.

2 Team pitches

30 MIN

TEACHER

- Each team pitches: 3 min pitch + 1 min Q&A from the class.
- With 6 teams = 24 min of pitching + transitions. With 8 teams = 32 min.
- Distribute the optional Peer Rubric or sticky notes for feedback. Students leave at least one specific note per pitch: what they'd add, a question, or how they'd help.
- Track time visibly so all teams pitch.

STUDENTS

Pitch your project in 3 minutes: problem, solution, why it matters, and the plan.

Answer 1–2 questions from classmates.

Listen actively to other teams; leave specific feedback for each.

3 Class reflection + commitments

7 MIN

TEACHER

- Briefly: what patterns or similarities did you notice across the projects? How might these actions serve as leverage points?
- Students write one personal commitment: **"My next step for our team's project this week is…"**
- *Optional:* post all commitments on a class wall.

STUDENTS

Share one pattern across the projects.

Write a personal commitment: "My next step this week is…"

Post your commitment on the class wall.

4 Closing

3 MIN

TEACHER

- Optional Day 5 invitation: teams that want to actually do the project can use tomorrow to get started on first emails, first meetings, first materials.
- Close: students are food system designers now, and small projects shift larger systems. Be the difference.

STUDENTS

Decide as a team: do we want to keep going with this project beyond class?

Take your Action Project Plan with you.

ASSESSMENT

What understanding looks like.

Students demonstrate understanding by:

- Using vocabulary across Sets A and B accurately in discussion and writing.
- Completing all four parts of the Action Project student pages: Issue Web, HMW statement, Solution Brainstorm + Feasibility Filter, and Action Project Plan.
- Contributing meaningfully to team Issue Web synthesis, HMW drafting, and project selection.
- Designing a tight, specific, doable project, with named stakeholders, concrete steps, and a success metric.
- Delivering a clear 3-minute pitch covering problem, solution, why-it-matters, and the plan.
- Listening to peers and offering specific, constructive feedback during pitches.
- Writing a personal commitment to a concrete next step.

Look-fors: tight scope is the strongest signal of project quality. Teams that narrow to a specific stakeholder and a specific action will outperform teams that stay broad.

DIFFERENTIATION & SCAFFOLDING

Build access in.

FOR MULTILINGUAL LEARNERS

- The HMW formula is especially useful: pre-teach the formula and laminate copies if possible.
- Pair multilingual learners with classmates who share their home language when forming teams.
- Allow Action Project Plan content to be drafted in a home language and translated for the pitch.

FOR STUDENTS WITH WRITING OR RESEARCH IEPS

- Provide a pre-filled Issue Web for one Issues Menu topic students can use as a model.
- Allow audio-recorded reflections in place of written commitments.
- Pair with a strong writer during Part 4 for the Action Project Plan.

FOR TEAMS THAT PICK TOO-BIG PROBLEMS

- Coach them to add a constraint: **“in our cafeteria,” “in 4 weeks,” “with student volunteers only.”**
- Use the Feasibility Filter to surface the constraint problem.
- Suggest they start with one piece of a bigger problem rather than the whole thing.

FOR STUDENTS WHO FINISH EARLY

- Add a 5th slide to the pitch: **“Risks and how we’d handle them.”**
- Begin contacting the first stakeholder named in Part 4 (cafeteria manager, principal, local farmer).
- Help a slower team narrow their scope using the Feasibility Filter.

CONTEXT NOTES

Authenticity matters. The more real this is, the more students invest. If you can invite a community partner (local farmer, food bank coordinator, school food service director) for Day 4, do it. Their presence raises the bar without raising the workload.

Implementation is optional but powerful. Some teams will want to actually do their project. Set aside a Day 5 (or stretch into the next week) to support implementation. Even partial implementation builds civic agency.

Equity in voice. The team structure surfaces all roles, but some students still talk more than others. Build in silent journaling between major decisions; require each team member to speak at least once during the pitch.

EXTENSIONS

Six ways to go further.

EXTENSION 01

Implement the Action Project

Teams actually carry out the project they designed. Over 2–4 weeks, teams gather materials, contact stakeholders, run the action, and collect simple data to measure results. At the end, students reflect on what they accomplished, the impact of their actions, and how their project could be improved or expanded. This is the single most powerful follow-on for civic agency.

EXTENSION 02

School Food Waste Audit

Students conduct a structured food waste audit at lunch, observing and recording food discarded across several lunch periods, then categorizing the waste by type (untouched food, partially eaten, packaging). They analyze findings and propose strategies (share tables, composting, portion adjustments) to reduce waste.

EXTENSION 03

Farm-to-School Investigation

Students research where foods served in their school cafeteria come from, identify which items are locally or regionally produced, and create a map or visual display showing the journey of several foods from farm to school. They propose ways the school could increase its use of local foods.

EXTENSION 04

Food Access Mapping Project

Students investigate access to healthy food in their local community by mapping grocery stores, farmers markets, community gardens, and food banks. They analyze patterns in food access and discuss how communities can work together to ensure everyone has nourishing food.

EXTENSION 05

Food System Careers Exploration

Students research careers connected to the food system: farmers, soil scientists, chefs, dietitians, food entrepreneurs, farm-to-school directors. They choose a career and create a short presentation explaining how it contributes to a healthy, regenerative food future.

EXTENSION 06

Design a Food Awareness Campaign

Students create a campaign that encourages healthier or more sustainable food choices in their school: posters, announcements, social media messages, or short videos explaining how small changes (reducing waste, choosing local) can improve the food system.