

SOIL TO SOLUTION

Regenerative Agriculture PBL Student Checklist

Use this checklist to plan, track, and review your team's work.

Team Name: _____ Team Members: _____

Driving Question: How can we, as environmental scientists and agricultural innovators, design solutions that improve soil health and support healthier food options in our community?

1. ASK & CHOOSE A FOCUS

- ☐ We identified one specific soil or food-system issue.
- ☐ We explained why the issue matters to people, food systems, and/or the environment.
- ☐ We listed what may be causing the issue.
- ☐ We identified who is affected and the stakeholders involved.
- ☐ We created Need-to-Know questions to guide our research.
- ☐ Our teacher approved our project focus.

2. RESEARCH & UNDERSTAND

- ☐ We used several reliable sources.
- ☐ We took organized notes in our own words.
- ☐ We included both numbers/data and people's experiences or observations.
- ☐ We checked sources for credibility and possible bias.
- ☐ We cited our sources correctly.
- ☐ We explained how soil health connects to food production, healthy food access, and human/community health.

3. ANALYZE THE SYSTEM

- ☐ We identified multiple stakeholder perspectives.
- ☐ We showed how the stakeholders and parts of the system are connected.
- ☐ We explained important causes and effects.
- ☐ We predicted how a change in one part of the system could affect other parts.
- ☐ We identified the root cause(s), not only the visible symptoms.

4. IDEATE & DESIGN A SOLUTION

- ☐ We brainstormed more than one possible solution.
- ☐ We chose a realistic solution that improves soil health and supports healthier food options.
- ☐ We identified our target audience.
- ☐ We included short-term and long-term actions.
- ☐ We used soil science to explain how and why our solution should work.
- ☐ We described how we will measure or observe the solution's impact.
- ☐ We created a clear, realistic call to action.

5. CREATE THE PRODUCT

- ☐ We selected an approved format: website, campaign, video, podcast, infographic, model, garden design, prototype, or another teacher-approved product.
- ☐ Our product clearly explains the issue and why it matters.
- ☐ Our product presents research and evidence accurately.
- ☐ Our product includes stakeholder perspectives.
- ☐ Our product includes a system model or visual connecting soil health, food production, and community impact.
- ☐ Our product is organized, easy to understand, creative, and original.
- ☐ We checked grammar, spelling, labels, visuals, layout, and citations.

6. PRESENT & REFLECT

- ☐ Every team member has a meaningful role in the presentation.
- ☐ We clearly tell the story of the issue, our research, and our solution.
- ☐ We explain our design process, including feedback and revisions.
- ☐ We communicate clearly and appropriately for our audience.
- ☐ We end with our call to action.
- ☐ We explain how our understanding of soil health changed.
- ☐ We explain how soil health affects food and communities.
- ☐ We identify one action we can take as individuals or community members.

FINAL TEAM CHECK

- ☐ We reread the challenge guidelines and compared our work with the rubric.

- ☐ We asked another person to review our product and used helpful feedback.
- ☐ Our evidence supports our claims.
- ☐ Our solution is safe, ethical, realistic, and connected to the driving question.
- ☐ We are ready to submit and present our best work.