

ALL for Science™

Authentic Literacy and Language for Science

Baylor
College of
Medicine

CENTER FOR
EDUCATIONAL
OUTREACH

DAY 15: Recommending a Solution

CULMINATING PROJECT (PART 2)

In Part 2 of the culminating project, teams combine their knowledge of existing solutions to food waste to draft a letter to a school official, proposing a plan to reduce food waste at their school.



ABBREVIATED STANDARDS

- ELA and Reading TEKS: 5.13(E)
- CCSS: RI.5.9
- NGSS: 5-LS2-1, 5-PS3-1
- TEKS: 5.3(A)(B)(C)

Day 15: Recommending a Solution

Literacy Strategy: Combining knowledge to write a recommendation letter to a school leader.

Science Concept: Applying science concepts to design local innovations to reduce food waste.

Science and Literacy Connection: Scientists communicate their research and knowledge with decision-makers to enact change in their communities.

Culminating Project: Part 2 (90 minutes)

OVERVIEW

Yesterday, teams presented their culminating project: a report sharing what they have learned about methods of food disposal, matter cycling, and energy transfer. They heard about the work of other teams as well. Today, the teacher will facilitate a class discussion. The goal of the discussion is to combine their knowledge about existing solutions to food waste to recommend a plan to reduce food waste in their school (transferring our organic matter elsewhere so its stored energy can be used by living things).

MATERIALS NEEDED

Each team needs:

- the report they have written (including the diagram they created)

Teacher needs:

- chart paper or whiteboard for scribing learner ideas and drafting the recommendation letter

SETUP

- Ideally, the tables or desks should be set up in a semicircle so that teams can see each other. This configuration will help engage all learners in the discussion. The teacher should also sit in the semicircle.
- Before starting the discussion, remind learners of any existing community agreements or norms that might support them in engaging respectfully in a discussion. If your classroom does not have existing community agreements or norms, you might establish some norms before the discussion. You might post questions like those below to start a conversation about norms:
 - How will we know whose turn it is to share?
 - How can we show each other that we agree or respectfully disagree?

COMBINING OUR KNOWLEDGE

1. Start by reviewing all the knowledge that has been shared. Invite learners to share things they learned from their own inquiry and from listening to other team's presentations.
2. You might say something like this: *We have all been investigating four food-disposal methods used by different schools around the U.S. Let's share the most important information that we know so far about this question: "How are schools around the U.S. reducing their food waste?"*
3. Make sure that information about all four methods (composting, vermicomposting, feeding pigs, donating/sharing) is mentioned. It might be helpful to invite each team to share.
4. It might be helpful for you to write what learners share on a whiteboard or chart paper.

RECOMMENDING A PLAN

1. You might say something like: *You have also written about your ideas for reducing food waste at our school. Let's take a look at all of the possible ways to reduce food waste and talk about which methods we might borrow from to reduce food waste at our school.*
2. Encourage learners to explain why they think a particular method could help reduce food waste at their school. Consider local factors: Does the school have a garden or an unused space where a compost pile or worm bin could be set up? Does the local community include pig or hog farmers? Is there a local food bank that might accept donations?
3. It might be helpful for you to write what learners share on a whiteboard or chart paper.

DRAFTING A RECOMMENDATION LETTER

1. Remind learners about the purpose for writing. You might say something like this: *Remember, our purpose for writing this letter is to share our ideas for reducing food waste at our school with our principal (or other school leader).*
2. Discuss with learners how tone is important when writing to a school leader. You might say something like this: *The way we speak to a principal (or school leader) is sounds different from the way we speak to our friends or our family. Let's keep this in mind as we write. (You might have learners turn to a partner and talk about how they would ask a question when speaking to their friends, to their family, and to their principal.)*
3. Lead the class in a shared writing of a recommendation letter. They will make suggestions, and you will write them down. Write large enough for the class to see what you are writing on chart paper or a white board. As you write down learners' ideas, you can scaffold language as needed (e.g., After hearing different ideas: *How about we say it like this...?*)
 - Start by addressing the letter to your principal (or other appropriate school official).
 - Invite learners to share ideas and integrate them into the draft. You might provide prompts like:
 - *How should we start the letter?*
 - *What method(s) are we recommending? What should we tell ____ about how the method(s) work?*
 - *Why are we recommending this method(s) for our school? What makes this method(s) a good fit?*
 - *How does this method(s) reduce food waste? Could we support this claim with evidence from our readings or investigations?*
 - *How should we end our letter?*
 - When the letter is complete, read the letter aloud to the class.

CLOSING

1. Tell learners how you plan to deliver the letter to its intended recipient, and thank learners for their hard work during this unit.

Expanded Standards
English Language Arts Reading TEKS 5.13(E) Demonstrate understanding of information gathered.
CCSS RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
NGSS 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment; 5-PS3-1 Use models to describe a phenomena.
Science TEKS 5.3(A) develop explanations and propose solutions supported by data and models; (B) communicate explanations and solutions individually and collaboratively in a variety of settings and formats; (C) listen actively to other’s explanations to identify relevant evidence and engage respectfully in scientific discussion.