

DAY 19
The Science Meeting

Reading Strategy: Culminating Activity

Science Concept: Scientists collaborate on investigations and share data within their teams and with other scientific teams to gain a better understanding about the world around them.

Reading TEKS: 3.13 E & H

ELPS: Speaking K-12, 19 TAC
74.4(c)(4)D

Science TEKS: 3b2F

Materials for Culminating Activity: Inquiry Circle Group Menu of Choices; materials to support group projects will vary based on choice

Materials for Science Whole Group Lesson: See Lesson

Content Vocabulary:

Claim – a statement that says something is true based on observations or an opinion

Evidence – data collected from the investigation that can be used to support explanations and answers

Data- facts or information collected during an investigation; EX: images, measurements, or words

Reasoning- thinking about and explaining *how* the evidence supports a claim

Analyze- to carefully examine details or specific information

Science and Literacy Connection: Scientists present the results of their research and investigations to other scientists and the public to advance knowledge and encourage collaboration.

For an expanded version of the Standards listed above, see page ____.

Culminating Activity — 30–45 minutes

OVERVIEW

Students have worked in inquiry circle groups to research various ecosystem. During this time, students have practiced becoming a scientist by speaking, reading, and writing like one. Inquiry circle groups will work together to create a product to share at the scientific symposium.

PROCEDURE:

- Say something like, “Now that everyone has written a synthesis statement about their ecosystem, we will create a product to share what we know in a scientific symposium.”
- Say something like, “Groups will work together to pick one product to create. Remember, your product must show what you know about your ecosystem.”



- Pass out the choice sheet and review the options. For technology-based products, be sure the app is available in your school district and that you are familiar with it.
- Facilitate groups (if needed) to come to a consensus about which product to create.
- Including today, there are three days scheduled to work on the culminating product.
- Groups will present their products on the last day of the unit.

Science Whole Group Lesson — 30 -45 minutes

OVERVIEW

Today students share the results of their investigations with an oral and visual presentation (poster).

GUIDING QUESTIONS

Did we find an answer to the question that began our investigation? What new knowledge, ideas, or questions do we have now?

BACKGROUND INFORMATION

Today students present the results of their investigations with algae. Over the course of the past few weeks, they have learned new skills in scientific inquiry and new science content about food chains and producers.

It is important to allow all teams to present today during the allotted time. If necessary, an extra day or partial day may be allowed for presentations. That will be up to the discretion of the individual teacher.

In the last lesson of the unit, teams will be presenting their literacy research projects.

SAFETY

Remind students to secure the caps on the algae bottles before they move them for the presentation!

MATERIALS

Materials

- Team posters
- Science Notebooks
- Algae bottles
- Timer or clock

Set-up

- Ideally, the tables or desks should be set up in a semicircle where all teams can see each other. This configuration will help engage all students in the discussion.
- Presenting team will stand in front of the class, prepared to answer any questions
- Teacher should sit within the semicircle as well.

- Decide the order in which the teams will present

DAILY OBSERVATIONS

Observations have ended.

PROCEDURE

Engage

1. Instruct the class to gather their posters, science notebooks, and the containers with their algae.
2. Read the order of team presentations. Remind the teams that they have 5 minutes to present, and 2-3 minutes for questions after the presentation from the others.
3. Ask the other teams to write down any questions or comments they may have and to wait until the presentation is over before they respond.

Explore

4. Begin the presentations! *Remember that depending on the number of teams you have, you may choose to spend an extra day on their science investigation presentations.*

Explain

5. During the Q & A portion, allow students to ask their own questions of the team, or make their own comments.
6. Teachers may need to add open-ended questions such as “Why do you think ...” “How can you explain...” “What do you know now that you didn’t know or understand before?”

Elaborate

1. After the last presentation is given, congratulate the class on their scientific investigations, and their demonstrated new skills working as scientists.
2. Offer positive feedback to each team by finding a strength in their work to highlight. (Ex: Was there an innovative approach to their investigation? Was their data well organized? Did they display collaborative teamwork throughout the investigation? Etc.)
3. Explain that in the next class period, they will be asked to share the product they created during the literacy inquiry circle time.
4. They should also be prepared to answer these questions “ How does my research topic connect to what I have learned about food chains and ecosystems? How does my research topic connect to my scientific investigation on algae? (*Teacher note: Responses to these questions will be written.*)

Evaluate

5. Were the poster presentations well-organized?
6. Did the evidence given reasonably support the team’s claim?
7. Did the team succeed in finding an answer to their beginning question? If not, did they give a reasonable explanation for not finding an answer?
8. Did students communicate new understanding about scientific inquiry and/or science content?
9. Did students use scientific language in the presentation?

Expanded Standards

Reading TEKS: 3.13 E&H Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to: (E) demonstrate understanding of information gathered; (H) use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

ELPS: Student Expectations for Speaking K-12, 19 TAC 74.4(c)(4) The student is expected to: (D) speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency; (E) share information in cooperative learning interactions.

Science TEKS: 3b2F: The student is expected to communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.