# Day 17

# **Preparing for the Science Meeting**

**Reading Strategy:** Culminating Activity

Science Concept: Scientists organize their data in a way that is easily understood by others,

making it easier to discuss and share.

 Reading TEKS:
 ELPS: Speaking K-12, 19 TAC
 Science TEKS: 3b2C, 3b2D, 74.4(c)(4) D

 2B2F

**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

**Science and Literacy Connection:** Scientists present the results of their research and investigations to 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 ecosystems. 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 on the last day of the unit.

#### **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 at the end of this unit."
- Say something like, "Groups will work together to pick one product to create. Remember, your product must show what you know about your ecosystem."



- Distribute the "Inquiry Circle Menu of Choices" sheet (1 per student) 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**

Students begin planning their presentations and decide what format to use for their data.

## **GUIDING QUESTIONS**

What claim have we made based on our observations and investigations? What evidence do we have to support the claim? How will we present our evidence?

## **BACKGROUND INFORMATION**

By this point, students have already completed their Claims Charts and have decided what format to use for presenting the data they have generated (graph, chart, photos/drawings, etc.).

At the beginning of the class, the teacher will post the Guiding Questions where all can see and review them. Lessons 17 and 18 will be dedicated to preparing for the science meeting.

#### **SAFETY**

There are no safety issues.

#### **MATERIALS**

## **Materials**

Science notebooks with all student documents, notes, photos, etc.

- Dot Plot docx. (from Lesson 16)
- Examples of how to Display Data docx. (from Lesson 16)
- Blank student graphs
- 1 poster board per team
- Rulers or metersticks
- Markers

#### **SET UP**

- Have sample charts/graphs, poster boards, ruler or metersticks, and markers where students can access them.
- Make copies of Blank student graph (1 per student). Place on table with the other materials.

On the board, write the guiding questions. What claim have we made based on our observations and investigations? What evidence do we have to support the claim? How will we present our evidence?

•

#### **DAILY OBSERVATIONS**

Observations have ended.

#### **PROCEDURE**

## **Engage**

- 1. Begin the class by directing their attention to the area where you have assembled materials they will use as they prepare their presentations.
- 2. Explain that each team will use 1 poster board on which to mount their information (pictures, drawings, charts, etc.) when they are ready.
- 3. Tell the class that they will use today and tomorrow to prepare. This will give them time to **make a plan**, create any charts they may want, decide what photos or drawings they will use, etc.
  - A plan would include not only what data they will use, but also how they will present it and, a sketch of where on the poster board they will place their information.
- 4. Every team member should have a job to work on. They can decide among themselves who will do what.
- 5. Caution them not to begin actually gluing or taping anything on the poster until the next class because they may decide to do something differently by tomorrow.
- 6. Let them know that on the day of the science meeting, each team will present their poster and that one member of the team will explain their investigation and the results to the class. (Teams can decide among themselves who that person will be.)
- 7. Point to the guiding questions on the board and read aloud to the class. Remind them to use them as guides as they prepare their work.

#### **Explore**

8. Ask the Equipment Directors to make sure the team has their science notebooks and all the information and materials they need.

- 9. Instruct the class to use the remainder of the time working on their presentations as the teacher moves through the teams, offering guidance as needed and asking questions about their work.
- 10. Lead Scientists should ensure that the teams are focused and that each has a part to work on.

#### **Explain**

- 11. When time is up, ask if there are any questions that haven't been addressed yet regarding the presentation or organization of the data.
- 12. Ask the Lab Directors and Equipment Directors to begin the cleanup of materials, returning them to the appropriate place.

#### **Elaborate**

- 13. Ask the Data Scientists to describe to the class any problems or questions they encountered today as they organized their data and how they resolved them.
- 14. Ask for volunteers to assess their team's progress today.
- 15. Remind the class that they will continue working on and finish their presentation tomorrow.

#### **Evaluate**

- 16. Are students communicating their developing understanding about claims, evidence and reasoning through interviews?
- 17. Are students asking questions that demonstrate deeper thinking?
- 18. Are the students working as a team on 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:** 3b2C: The student is expected to construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data. 3b2D: The student is expected to analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations. 3b2F: The student is expected to = communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.