

ALL for Science™

Authentic Literacy and Language for Science

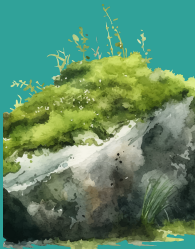
Baylor
College of
Medicine

CENTER FOR
EDUCATIONAL
OUTREACH

DAY 14: PREPARING FOR THE SCIENCE CONFERENCE (PART 2)

CULMINATING ACTIVITY

Teams complete their informational products that answer a question (and supports a claim) about the representative plant in preparation for tomorrow's science conference!



BRYOPHYTES



GYMNOSPERMS



VASCULAR PLANTS



**FLOWERING
PLANTS**

ABBREVIATED STANDARDS

- Reading TEKS: 4.9D(iii), 4.12B, 4.13E
- CCSS: RI.4.5, SL.4.1(a), W.4.2(b)(d)
- NGSS: 4-ESS2-1, 4-ESS2-2, 4-LS1-1
- Science TEKS: 2018–19: 4.2F; 2024–25: 4.3B

Day 14: Preparing for the Science Conference (Part 2)

Literacy Strategy: Culminating activity part 2: thinking and writing like a scientist to compose an informational text.

Science Concept: Scientists organize their data in a way that is easily understood by others, making it easier to discuss and share.

Science and Literacy Connection: At the end of an investigation, scientists share new knowledge with others in many ways, including scientific presentations, published papers, and the media.

Culminating Activity (30–45 minutes)

OVERVIEW

Yesterday, children should have begun work on their books to present at the “science conference,” and they will continue working today. By the end of today the groups should be ready to present. Presentations will take place tomorrow.

GUIDING QUESTIONS FOR THE CULMINATING PROJECT

Here are some guiding questions you might want to pose for the teams to respond to:

- What evidence do we have to support the claim(s)?
- Is our informational book organized in one of the five ways scientists typical use for their work (chronological, simple description, compare/contrast, cause/effect, or problem/solution)?
- What science language will we use in our informational book?
- How will we present our evidence?
- How does our investigation of one representative plant demonstrate how adaptations helped some plants survive in changing environments?

MATERIALS NEEDED

Each team needs:

- science notebooks with all documents, notes, etc.
- team Inquiry Chart
- team “Plant Observations” booklet
- access to a digital platform that supports the writing of a book
- access to bags of representative plant images and fact sheets

SETUP

- Designate a digital platform that learners will use to create their digital book. Consider using platforms that are already familiar to your learners (for example, Google Slides or PowerPoint). Make sure to choose a program that will allow you to download digital book products as a .docx, .pptx, or .pdf file.
- When using technology, assure that each team has access to information as needed.

DIRECTIONS FOR CHILDREN WORKING ON THE CULMINATING PROJECT

During the time allotted, children should be working on their digital books. Ideally, children should work on a draft of their book, but if time doesn't allow them to do so before they present their final version, they will be presenting their draft as a book.

During this work time, remind children to do the following:

- Organize their book using the data they collected during their inquiry circles and science investigations. They should be synthesizing the information to address the two ideas:
 - the relationship between their plant and its environment; and
 - how adaptations helped some plants survive the changing environments.
- Structure their book using one of the five ways informational texts are organized (model texts are available for three of these in the "Plant Resources" document):
 - sequential/chronological
 - simple description
 - compare and contrast
 - cause and effect
 - problem and solution
- Include graphic features of informational texts in their books (e.g., table of contents, index, glossary, headings, bold words, sidebars, pictures and captions, and labeled diagrams).
- Include (in their book) a biography, telling their readers information about themselves. Each group member will create a biography page about themselves, and these pages will be added at the end of their book. Information they might want to address in their bibliographies includes the following:
 - Who are you as a scientist?
 - What was your role in your group?
 - Which group members did you work with?
 - How did you work as part of a team?
 - What do you think about science?
 - What part of the scientific process did you enjoy most?

Role of the teacher: the teacher moves around, supporting the teams, offering guidance as needed, and asking questions about their work.

Science Language

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.

- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.

Expanded Standards

Reading TEKS

4.9D: Recognize characteristics and structures of informational text, including **(iii)** [recognize] organizational patterns such as compare and contrast. **4.12B:** Compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft. **4.13E:** Demonstrate understanding of information gathered.

CCSS

RI.4.5: Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. **SL.4.1:** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. **(a)** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. **W.4.2:** Write informative/explanatory texts to examine a topic and convey ideas and information clearly. **(b)** Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. **(d)** Use precise language and domain-specific vocabulary to inform about or explain the topic.

NGSS

4-ESS2-1: Make observations and/or measurements to produce data to serve as the basis for evidence for an explanation of a phenomenon. **4-ESS2-2:** Analyze and interpret data to make sense of phenomena using logical reasoning. **4-LS1-1:** Construct an argument with evidence, data, and/or a model.

Science TEKS

2018–19: 4.2F: Communicate valid, oral, and written results supported by data.

2024–25: 4.3B: Communicate explanations and solutions individually and collaboratively in a variety of settings and formats.