DAY 6 What Kind of Information Will I Collect?			
Literacy Strategy: Reading for Specific Information on a Website		**Science Concept:** Scientists know that collecting information through observations and measurements may provide the evidence they need for making explanations and answering questions.	
Reading TEKS: (1)(b)(13)(C)	**CCSS:** RI.1.10	**NGSS:** 1-LS3-1, 1-LS2-1	**Science TEKS** 1(2)(C)(D)(E)
Materials for Mini-lessons on Science-specific Disciplinary Literacies (referred to as Mini-lesson): Chart paper, markers, class inquiry chart; choose a website to model			
Materials for Science Inquiry Circles: inquiry charts, pencils, selected informational texts or videos			
Materials for Science Investigation: See Lesson			
Content Vocabulary: **Testable question –** a question that can be answered through a designed investigation or experiment **Scientific investigations –** a planned design or approach to find an answer to a question **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			
Science and Literacy Connection: Scientists look very carefully for facts or information during an investigation or research because they know it can be used as evidence to explain and support their answers.			

Mini Lesson — 15 minutes

OVERVIEW

When doing scientific research, we must remember to think, talk, and read like a scientist. A scientist will use many different resources when researching information. In many cases, a scientist will read texts on the internet to get the most up to date information.

This Mini-Lesson teaches children how to read for specific information in web-based text (e.g., on the internet).

Declarative Knowledge (Tell them what the strategy is that they are learning)

1. Say something like, “Our strategy today is called “reading for specific information on a website”. I will use many sources while doing my research such as books, videos, and websites.”

Conditional Knowledge (Tell them when and why you know to use the strategy)

2. Say something like, “I know to use this strategy (reading for specific information on a website) because sometimes the books I have available may be outdated or simply do not include what I am looking for. When this happens, I can get more information on the internet.
3. As a strategic reader, I will scan the website because I do not need to read every word when I am looking for specific information. Just like when I scan a page in a book, this strategy is important because it saves me lots of time.
4. As a strategic reader using a website, I will always use websites that I can trust. Therefore, I will only use a website that my teacher has approved.”

(Before allowing your students online, you may want to ensure that the suggested websites are not blocked by your school district. You may also choose to bookmark the websites on your browser and/or create QR codes that students can scan to go directly to the website. You may also want to use district purchased websites. Many websites have text-to-speech options that may be used to scaffold for your students.)

Procedural Knowledge (Tell them the steps to using the strategy)

While you model the strategy, you might want to say something like this to the readers:

5. The first thing I will do is think about what I need to research today!

6. Now, I will look at my inquiry chart to determine what specific information I need to locate. Since we just started our research, I have to pick one thing to start with. In a few days, my chart will help me know what data is missing.

7. Then I think about a few key words that I need to look for on the website.

8. When I am on a website, the first thing I do is check to see if I can believe what is on the website. Since I am only using websites that my teacher approved, I know I can trust the information. If I look for information at home, I would ask my parent or guardian for help knowing a website is safe.

9. I must remember to scan the entire page on the screen. Just like in a book, the text features are important and can lead me to valuable information. *Point out captions, bold words, subtitles, etc on the webpage.*

10. If I do not find the information I need, I should try another website.

11. While scanning, I may see a hyperlink that I can click on for more information. If my mouse turns from an arrow to a hand, I know this is something I can click on. Sometimes the hyperlink will be words that are colored or bold, and other times it may be a picture or icon. I may also see short videos to play.

12. Sometimes websites have extra information that I should ignore. This could be advertisements, videos (not about my research topic), and even pop ups. I should ignore them.

13. If I find myself on a website that is not useful, I can use the back button at the top of my browser to get back to the website where I started.
(Alternatively, you could have websites bookmarked and have students return to the correct place using the bookmark.)

14. Once I find the specific information I need, I must remember to record it on the inquiry chart. That includes the URL for the website I used.

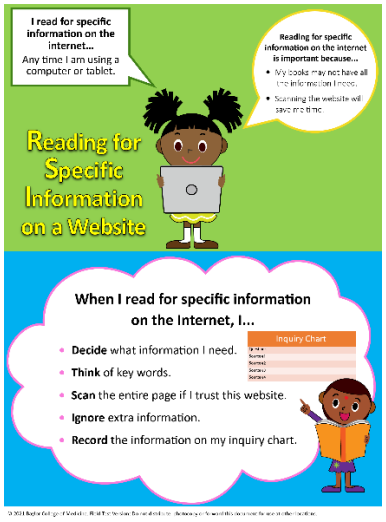
(You may need to model where to find the URL on the webpage and where to record it on the Inquiry chart.)

15. This is a strategy I will use every time I read for specific information on a website.

(You may have some groups working online while others are working in traditional texts throughout the inquiry circle groups.)

Practice in text (print, video, or interview)

Post the anchor chart in your classroom so students can refer to it while in their inquiry circles.
Encourage scientists to use the strategy during in their Inquiry Circles.



Science Inquiry Circles — 30 minutes

OVERVIEW

Scientists work in teams when conducting research and investigations. Each day of this unit, students will work in inquiry circle groups while embodying the role of a scientist. They will do so by taking on roles of scientists in research by speaking like a scientist, reading like a scientist, and writing like a scientist.

PROCEDURE

Before Inquiry Circle Groups — 5 minutes

You might want to say something like this to the readers:

1. It is time to get into our inquiry circle groups. You will be with the same research team as yesterday.
2. When we research ecosystems, we will practice our roles as scientists. We will do this because scientists have a special way in which they observe the world, read scientific texts, and write reports. There is no better way to learn about science than to become a scientist!

During Inquiry Circle Groups — 20 minutes

You might want to say something like this to the readers:

3. We have anchor charts to help guide your thinking. Do not forget to use them while in groups. (Refer to the "Language of a Scientist" anchor chart and the daily anchor chart. Remind students that they can use all the reading strategies taught, not just the one for that day.)
4. My role is to help guide the inquiry circle groups, but I expect you to work as a scientific team to solve your problems together.
5. Do not forget to answer your research questions and record it on the inquiry chart. It is important to record your sources on the inquiry chart as you complete it. (Be sure to explicitly explain how students should use the chart.)

   (While groups are working together, walk around the room to facilitate as needed.)

After Inquiry Circle Groups — 5 minutes

You might want to say something like this to the readers:

6. As we are concluding our inquiry circle groups for today, each group will have a chance to share what they accomplished and learned.
7. The Lab Director should lead the discussion with their inquiry circle group about today's results. For example, what did you learn about your animal? Which reading strategies did you use? What problems did you encounter? How did you resolve those problems?
8. The Data Scientist will now share with the entire class either something the group learned about their animal, which reading strategy(ies) were used, or how the group solved a problem.

Science Whole Group Lesson — 30 -45 minutes

OVERVIEW

Students discuss what kind of information they will be looking for in their investigations, then they will make their first observations and record it in their journals.

GUIDING QUESTIONS

What information do I need to answer my question? How will I collect it? Where/how will I record it?

BACKGROUND INFORMATION

Scientists know that collecting information through observations and measurements may provide the evidence they need for making explanations and answering questions. Documenting information they collect is important because the next step will be to make sense of it and determine if they have answered their questions, or if they need to conduct more investigations.

SAFETY

Remind the students not to open the lids and to handle the habitats gently without shaking.
(Refer to the Rules for Observing doc.)

MATERIALS

- Team mini habitats
- Food choices selected by the team
- Science Investigation Journals/pencils
- Hand lenses

SET UP

- Pre- cut the food chosen by the teams and place on small paper plates marked with the team number. (Each habitat will only need a small portion- 2-3 small pieces.)
- Place hand lenses in same location as mini-habitats.
- **Teacher will need to take a closeup picture of what the food looks like today (Day 6) and on Day 10 when final observations are made. The pictures will be used in the culminating project.**

DAILY OBSERVATIONS

Teams will make their first observations today! They will look at what the pill bugs are doing and what the food looks like (any changes?)
Give students time to observe their organisms and record their observations in their science journals. Facilitate group discussions by asking questions like, "What did you notice? Has anything changed since the last time you observed your organisms?"
Observations can be made at any time of the day, as long as they are made daily.

PROCEDURE

Engage

1. (Ask the Equipment directors to distribute the science investigation journals.) Announce to the class, "Today you will make your first observations of the pill bugs, after you add the food to the habitats. Review the rules for observing with the class!
2. Ask, "What kind of information are we going to be looking for as we make our observations? "(Answers will vary: to see what the pill bugs are doing; to see if they ate their food; etc.)

Explore

3. Distribute the small plates of food to each team. Direct the Lead Scientist to add the food bits carefully to the habitats.
4. Instruct the class to open their journals to the Day 1 page where they will document their observations.
   Point out the space where they will write the date. (Date should be posted or written where they can copy it.) Explain, "It is very important to date the observations in a science journal- scientists always date their notes and observations in an investigation. It is a way to organize the information and to track any changes over time".
5. Next, "Remember you will make observations every day and enter information in your journals. Point out question #1 – *What did you see the pill bugs doing today?*
6. Read the sentence stem aloud – "*Today the pill bugs are…".* Ask "How would you finish this sentence?" "What kind of information might you write here?" (moving, sleeping, eating, etc.) "Why might that be important?" Accept all responses.
7. Draw their attention to the blank space next to the sentence stem. Explain they will also draw a picture to show what the pill bugs were doing each day.
8. Point to question #2 – *"Describe what the food in the habitats looks like today."* Ask, "Why is it important to write about what the food looks like?" Accept their responses. (Because they are tracking changes in the food in their investigation.)
9. Then, read the sentence stem – *"Today I noticed that the food…"*
   Again, ask for ideas about what they might say. (Is bitten? The same? Missing? Changing color? etc.)
   Add that there is another space to draw what they see.
10. Let the class know that they will be writing and drawing about their observations every day for 5 days total, including today. As scientists, they need to make careful observations and recordings!
11. At this point, ask the Equipment directors to bring the mini habitats to their team.

12. Tell the class that today they will have 15 minutes to make their observations and write and draw in their journals. Let them know that you will be walking around to answer any questions they may have.
13. As the team's work, listen for their ideas, observations, and reasoning. Accept their observations. Offer guidance in the form of questions such as "How do you know …"; "What do you see?"; "How can you tell…"; "How would you describe that?" etc.

Explain

14. When time is up, ask the Equipment Directors to collect the mini habitats and return to the designated area. Lab Directors should make sure the area is clean.
15. Ask the Data Scientists from each team to briefly report what the team observed.
16. Ask the class if they have any new questions to add to the list about pill bugs.

Elaborate

17. Tell the students that the information, or data, they are collecting about what they observe will be used as *evidence* that supports an answer to their question at the end of the investigation.
18. For example, the evidence might be that the food they chose is all gone. Or maybe they don't eat it at all! Whatever they observe will be their evidence, or clue about what pill bugs eat.

Evaluate

19. Did the students demonstrate an understanding of what kind of information they need to collect?
20. Did students record their information in the journals?
21. Did students use any new science vocabulary in their communications?
22. Were any new questions raised?

Extended Standards
Reading TEKS: (1)(b)(13)(C) 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 (C) identify and gather relevant sources and information to answer the questions with adult assistance.
CCSS: RI.1.10 With prompting and support, read informational texts appropriately complex for grade 1.
NGSS: 1-LS3-1 Science & Engineering **-**Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena. Connections to the Nature of Science - Scientists look for patterns and order when making observations about the world. (1-LS2-2) Science uses drawings, sketches, and models as a way to communicate ideas.
Science TEKS: 1(2) (C) collect data and make observations using simple equipment such as hand lenses, primary balances, and non-standard measurement tools; (D) record and organize data using pictures, numbers, and words; and (E) communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations.