**Obtaining, Evaluating and Communicating Information**

*Time: 45 minutes*

**Goals:**

* To understand the role that the science practice of “Obtaining, Evaluating and Communicating Information” plays in science
* To experience how students might engage in this science practice. Specifically, participants will read and comprehend grade appropriate complex texts to summarize and obtain scientific and technical ideas, and describe how they are supported by evidence
* To introduce the NEWSELA resource and the concept of Lexile levels
* To create a content specific lesson utilizing this science practice

**Materials:**

* Guiding Questions handout
* NGSS Appendix F handout
* Science Practices Continuum handout
* “Moose” article at the 4th grade level, 8th grade level, or 12th grade level
  + Print the article that is closest to the grade that participants teach
* Instructional Strategies handout

|  |  |  |
| --- | --- | --- |
| **Activity** | **Description** | **Time** |
| Introduction | * Distribute the Guiding Questions handout. Inform participants that they will be recording their thoughts and ideas on this handout throughout the module. * Conduct a think-write-pair-share around the questions:   + What does “Obtaining, Evaluating, and Communicating Information” mean to you?   + What do you think this science practice looks like in a classroom?     - What are students doing?     - What is the teacher doing? * Explain to participants that this science practice is broad, covering the skills of reading, interpreting, evaluating, critiquing and producing scientific and technical texts. The focus of this module will be on reading, interpreting, and evaluating science texts | 5 min |
| Unpacking the Science Practice | * Distribute the NGSS Appendix F handout. Read the top portion of document together. Then select and read the bullet points that correspond with the grade band that your participants teach (e.g. grades K-2, or grades 3-5) * Distribute the Science Practices Continuum, and focus participants’ attention to the last page, which includes this science practice   + Explain to teachers that it can be helpful to think of student engagement in this science practice as on a continuum * Allow teachers time to read and make sense of both the NGSS Appendix F handout, and the Science Practices Continuum * Afterwards, ask teachers to complete the two reflection questions on their handout that correspond to this section. These questions include:   + How is the description of this science practice similar and/or different from how your students work with scientific information in the classroom?   + Are there specific activities you already do or places in your curriculum that students are given the opportunity to engage in this practice? * Conduct a whole group discussion around the reflection questions. * Key points to highlight during the discussion:   + Student performance of science practices can be thought of as occurring on a continuum   + This science practice is more than just passive reading of scientific test   + Being a critical consumer of information about science and engineering requires the ability to read or view reports of scientific or technological advances or applications (whether found in the press, the Internet, or in a town meeting) and to recognize the salient ideas, identify sources of error and methodological flaws, distinguish observations from inferences, arguments from explanations, and claims from evidence. | 10 min |
| Reading Activity | * Explain to participants that they will now have an opportunity to engage in this science practice by conducting a short reading activity using an article about moose. * Distribute the moose article that is closest to the grade that participants teach. The article is written at the 4th grade level, the 8th grade level, and the 12th grade level. * Have participants read the scientific text about moose, making sure to underline evidence and put a star next to the science ideas as they read. Also, ask teachers to consider the following questions as they read:   + Does the text have a clear claim?   + Does the text use scientific evidence to support the claim?   + Does the text have enough scientific evidence to support the claim?   + Does the text explain *how* the scientific evidence supports the claim? * After completing the reading activity, have participants complete the reflection questions on their handout that correspond to this section. These questions include:   + Do you feel this strategy engages the reader and supports them with this science practice? Why or why not?   + What other instructional strategies might you use to encourage your students to interact with and evaluate scientific text? * Conduct a whole group discussion around the questions. Afterwards, distribute the Instructional Strategies handout, and inform them that these are some other ways to support students in this science practice | 15 min |
| Introduction to NEWSELA & Lexile Levels | * Introduce participants to the NEWSELA website, which is a free online resource that provides news publications written at five different Lexile levels (i.e. levels of reading difficulty). Inform participants that students and classes can access articles that teachers assign through the website. Also, let them know that the moose article they just read came from this resource. * Show teachers the video which provides them with an overview of this resource, and how to use it   + https://www.youtube.com/watch?v=WCBNWvmLpns | 5 min |
| Article Quest | * Ask participants to use NEWSELA to find 1 or 2 science texts that they might use in an upcoming lesson * Have them to use the guiding questions on the handout to plan how they might use the article they find. These questions include:   + What article have you selected to use in your classroom?   + How does this article relate to your curriculum?   + What key information do you want students to obtain from this article?   + What aspects of this article might your students evaluate?   + Which strategy could you use to support students in “obtaining, evaluating and communicating information” in this lesson? Why might this strategy help your students better engage in this science practice? * If time allows, have teachers share their findings with one another | 10 min |