Obtaining, Evaluating & Communicating Activity #1: Using Primary Source Material

Using the model of instruction shown in the <u>Literacy in</u> <u>Physics: Reading a Primary Source</u> video from TeachingChannel.org, provide learners one of the following primary source articles:

- Lake Trout: Changes in lake trout growth associated with Mysis relicta establishment: a retrospective analysis using otholiths. (PDF format)
- Mountain Pine Beetle: Multi-temporal analysis reveals that predictors of mountain pine beetle infestation change during outbreak cycles. (PDF format)
- Gold Mining: Mercury-free, small-scale artisanal gold mining in Mozambique: utilization of magnets to isolate gold at clean tech mine. (PDF format)

Introduce learners to the article. Lead a discussion about the differences between primary and secondary/tertiary sources. Ask learners to read/skim the article and identify 5-10 vocabulary words they are not familiar with and define the words for themselves. Ask learners to identify the problem presented in the article, the steps undertaken to understand the problem and the conclusion. Encourage learners to ask additional questions. Invite learners into a discussion about the article.

Related Crosscutting Concepts:

- <u>Patterns</u>
- Cause & Effect
- Stability & Change

Related Disciplinary Core Ideas:

- <u>Core Idea LS1: From Molecules to Organisms: Structures</u> and <u>Processes</u>
 - LS1.A: Structure and Function
 - LS1.B: Growth and Development of Organisms
 - <u>LS1.C: Organization for Matter and Energy Flow in</u> <u>Organisms</u>
 - LS1.D: Information Processing
- <u>Core Idea LS2: Ecosystems: Interactions, Energy, and</u> <u>Dynamics</u>
 - LS2.A: Interdependent Relationships in Ecosystems
 - <u>LS2.B: Cycles of Matter and Energy Transfer in</u> <u>Ecosystems</u>
 - <u>LS2.C: Ecosystem Dynamics, Functioning, and</u> <u>Resilience</u>
 - LS2.D: Social Interactions and Group Behavior
- <u>Core Idea ETS2</u>: Links Among Engineering, Technology, <u>Science, and Society</u>
 - ETS2.A: Interdependence of Science, Engineering, and Technology
 - <u>ETS2.B: Influence of Engineering, Technology, and</u>
 <u>Science on Society and the Natural World</u>