

Introductory Module on Scientific Argumentation



What is the role of evidence in a scientific argument?



Agenda

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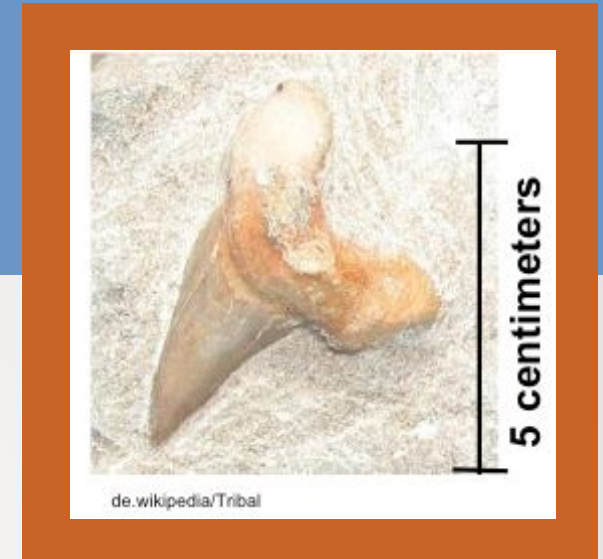
1. Video: Introduction to the module
2. Activity: Mystery fossil card sort 1
3. Video & Discussion: Encouraging talk about evidence
4. Session Takeaways
 - Extension – *Try it with your students!*

1. Video: Introduction to the Module



Watch Video 1 below, which provides an introduction to scientific argumentation

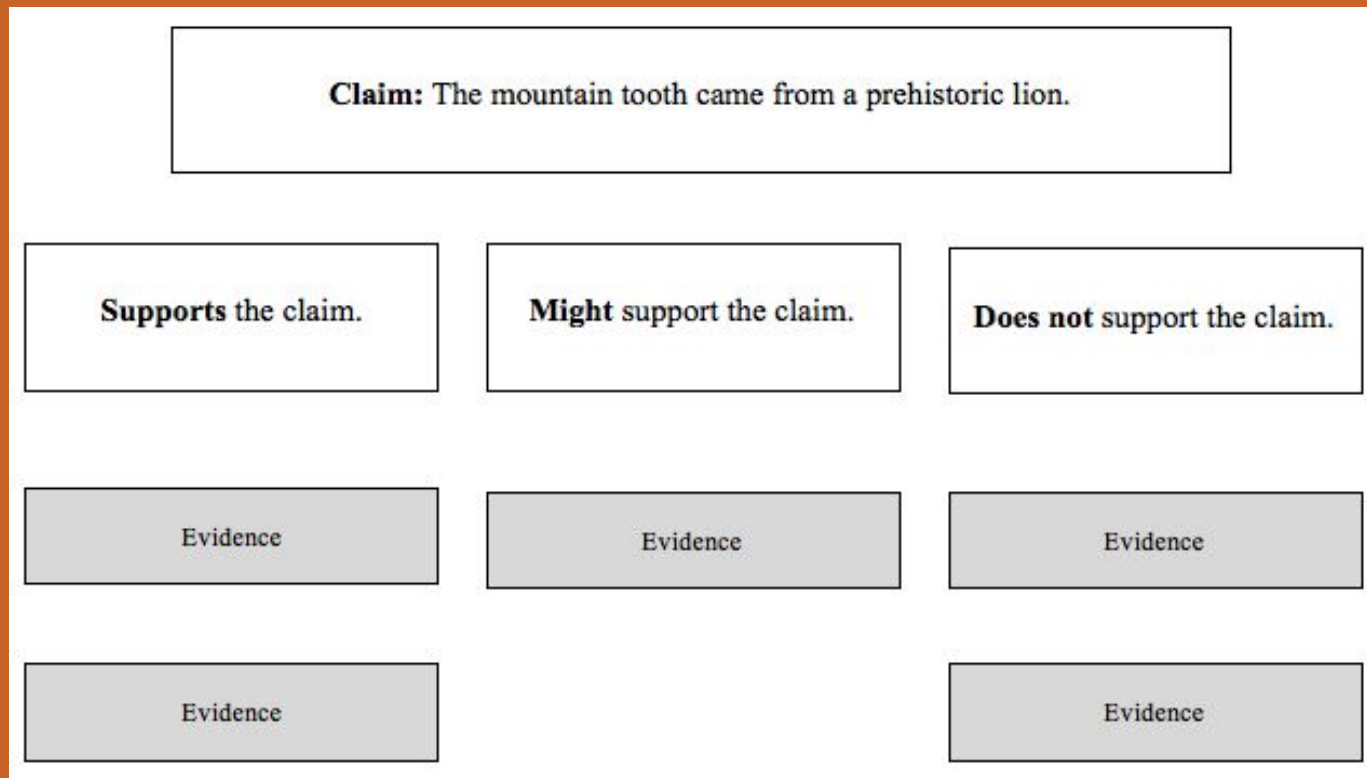
2. Activity: Mystery Fossil Card Sort 1



The task:

- Work in pairs or small groups to sort cards as supporting, maybe supporting, or not supporting the claim – The fossil tooth came from a prehistoric mountain lion, which is related to mountain lions that live today.
- Make sure to articulate *why* you sort cards as you do

Setting up your cards



Discussion about Card Sort

- What did you talk about when you were discussing the evidence?
- What types of questions did you ask?
- How can you envision your students engaging in this activity? What would work well? What challenges would they have?

3. Video & Discussion: Encouraging talk about evidence



Watch Video 2 below, which describes ways to support student discussions around evidence

Discussion Questions:

- How do the card sort and other types of activities encourage students to talk to each other and develop their ideas?
- How can students use evidence not only to support claims, but also to question and build on the ideas of their peers?

4. Session Takeaways

Evidence is observations or data about the natural world that is used to support claims

Some pieces of evidence can be stronger than others in support of a claim

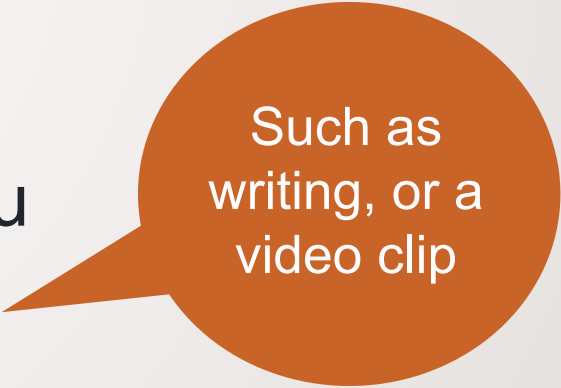
Evidence can be used in different ways, and we use our understanding of the science concepts (reasoning) to make sense of that evidence

Encouraging talk about evidence supports students in thinking critically and building understandings of the science concept

Extension: *Try it with your students!*

Develop or revise a lesson to encourage students to talk about evidence. This lesson could be a card sort or it could be another type of activity, such as making sense of data from investigation.

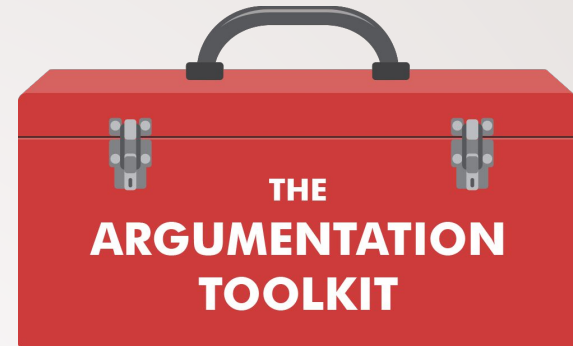
For the next meeting, bring the lesson you developed, as well as potentially **student artifacts** of students engaged in this



Such as writing, or a video clip



The Learning
Design Group



PARTNERS AND RECOGNITION



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