

Advanced Module on the Science Seminar



*Session #1: What is a
science seminar?*

Session #1 Agenda

What is a science seminar?

1. Video: Introduction to the module
2. Activity: Analyze a science seminar transcript (elements of argumentation)
3. Activity: Analyze a science seminar transcript (teacher role)
4. Session Takeaways
 - Extension – *Try it with your students!*



1. Video & Discussion: Science Seminar

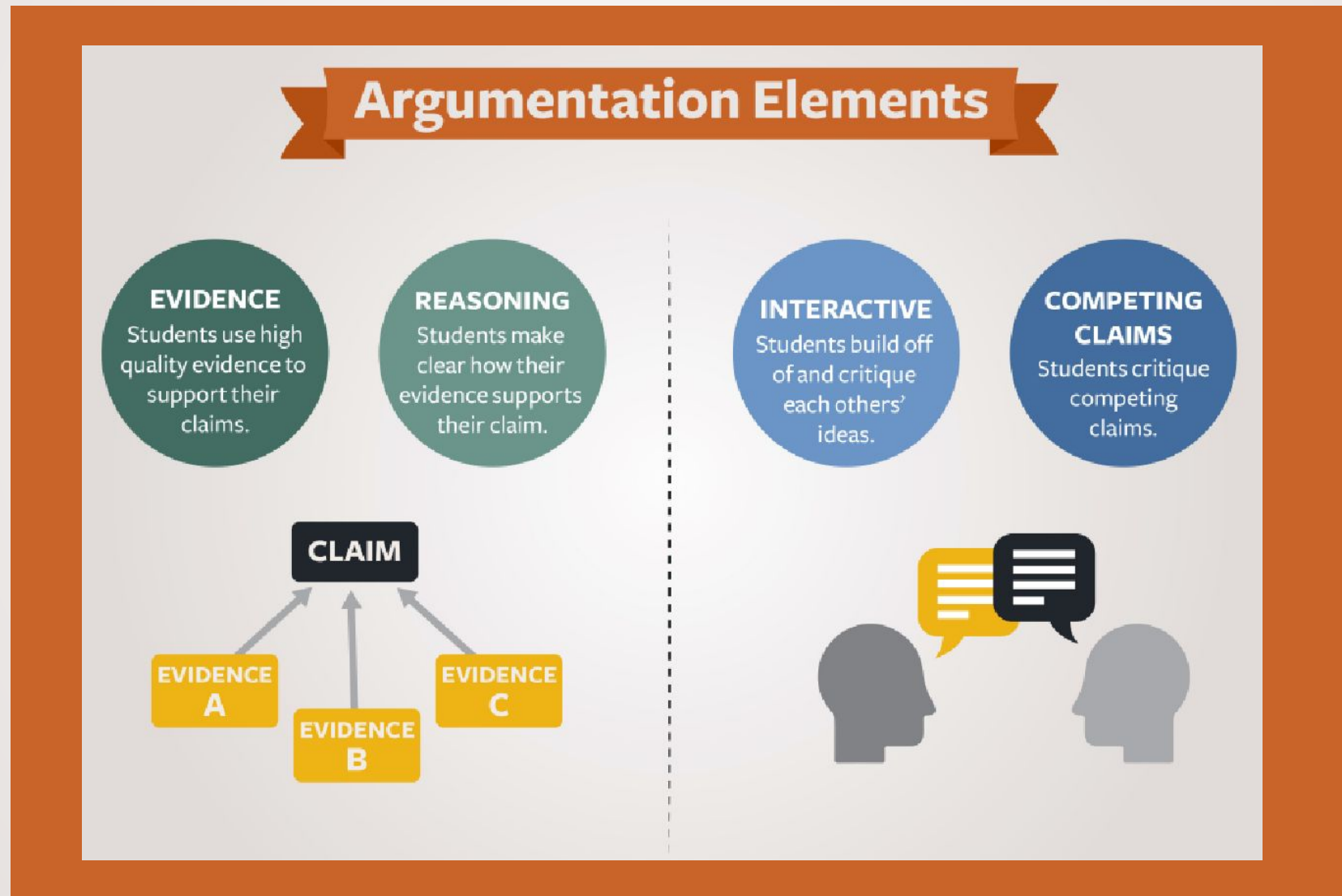


Watch video 1 below, which introduces the science seminar.

Discussion Questions:

- How similar and different in the science seminar are teacher and student roles compared to your previous science instruction?
- How might a science seminar support student learning of science content?
- During the intro module, we covered four elements of argumentation that students may require extra support with. Which of these do you think a science seminar supports? Why?

Argumentation Elements



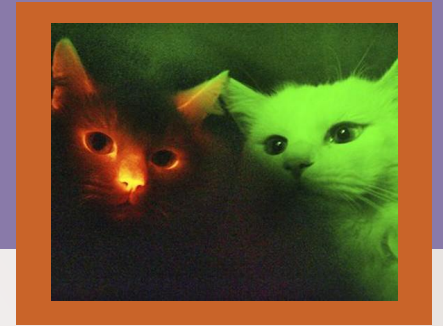
2. Activity: Analyze Science Seminar Transcript



The task:

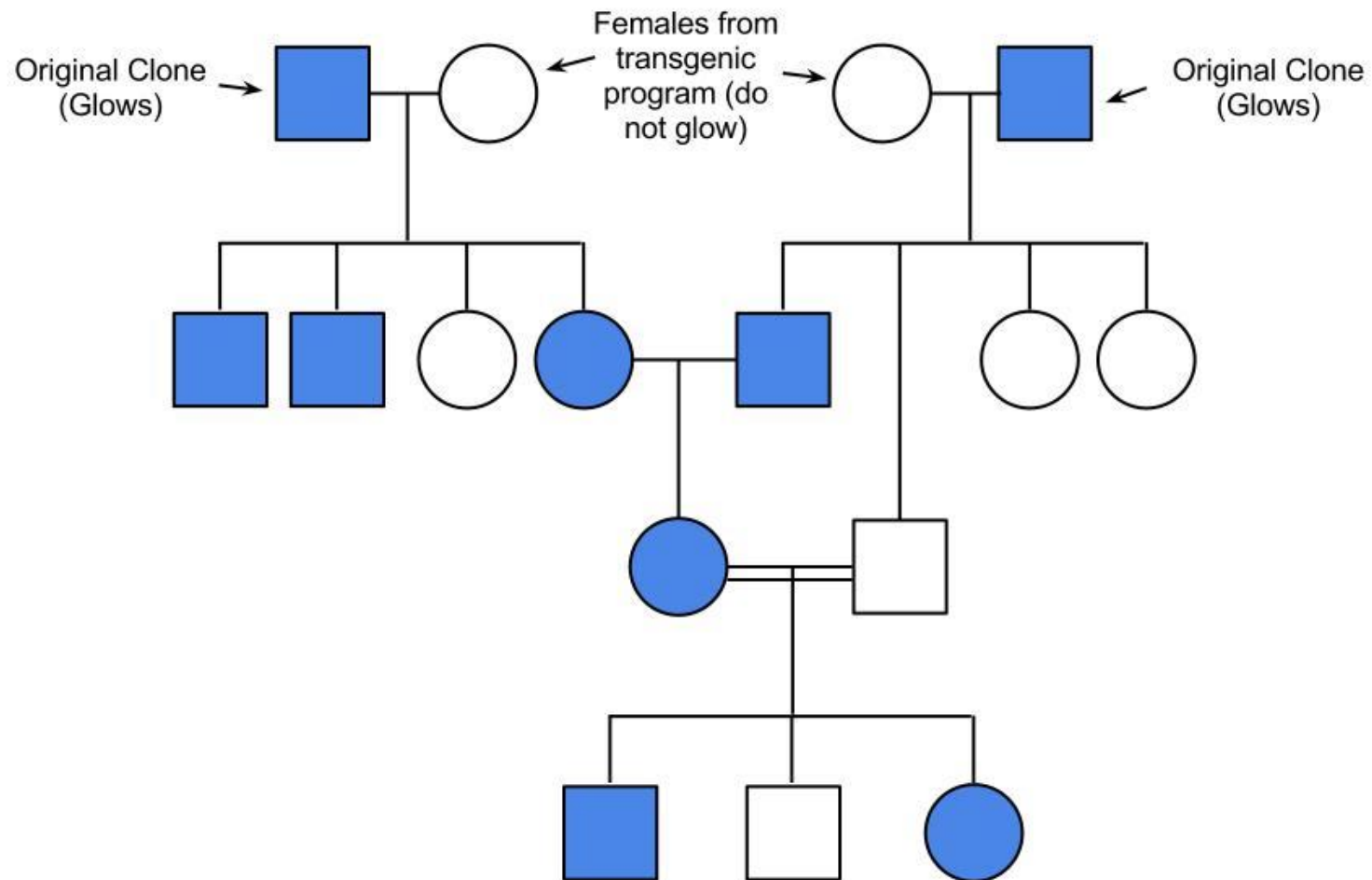
- After viewing video 2 below, work in pairs or small groups to analyze the selected transcript to identify student use of the 4 elements of argumentation

3 Claims



- 1: The allele for fluorescence is dominant – cats need only one copy of it in order to glow.
- 2: The allele for fluorescence is non-dominant– cats need two copies of it in order to glow.
- 3: The allele for fluorescence is incompletely dominant – cats will glow with either one or two copies, but cats will glow more brightly with two alleles for fluorescence.

Pedigree



Discussion 1 about Transcript

- Were the four “challenging elements” of argumentation visible in this student discussion? How?
- How do you envision a science seminar working in your classroom?



3. Activity: Analyze Science Seminar Transcript



The task:

- Work in pairs or small groups to analyze the selected transcript to identify strategies or cues used by the teacher (the role of the teacher).

Discussion 2 about Transcript

- What did the teacher do/say during the science seminar? How did students respond?
- What worked well about this strategy?
- How can you envision yourself leading a science seminar with your students? What would you do well? What do you think would be a challenge for you?



4. Session Takeaways

A science seminar allows students to grapple with the four challenging elements of argumentation.

The science seminar prompts students and teachers to take on new roles in the classroom.

The science seminar provides students with opportunities for argumentation and a deeper understanding of the content.



Extension: *Try it!*

- **Reflect on current practice:** If you have an opportunity, video tape a normal discussion in your classroom, bring a 5 minute clip to the next session to review how interactive it is.

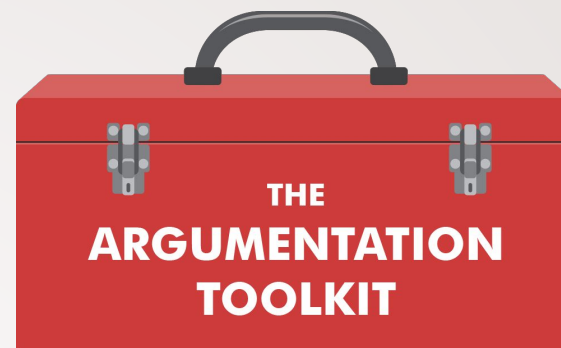
OR

- **Brainstorm:** Is there anywhere in your curriculum/unit where you can see an opportunity to discuss potential claims that could be incorporated in a science seminar?
- Bring your ideas to share at the next session.





The Learning Design Group



PARTNERS AND RECOGNITION



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**THE
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