

Transfer Task - From MELs/baMELs to Evaluating Models in Science Journals

### Applying What Students Learn...

- A transfer task is necessary to determine if students can:
  - Transfer the skills acquired from MELs and baMELs to science phenomenon and claims made in real-world scenarios
  - Identify models and evidence in science articles
  - Based on the evidence presented, evaluate the plausibility of the model





## Why Transfer Tasks?

- Although we may think we are doing a good job teaching a concept or skill...students may not realize they need more explicit instruction as to when these moments are occurring.
- They don't cue themselves into their prior learning or recognize how it relates to the new situation i.e. free fall problem...
- The more explicit we can be with our students about the goals of transfer
  it is not recall and plug and chug.
- Model this, show examples, state what they will be able to do. Do it in stages, kind of like sports (drill, game situation, game conditions, game).
- Make sure your students can cue themselves practice this give them a new situation/problem, see where they go, debrief.



### What does the Transfer Task look like?

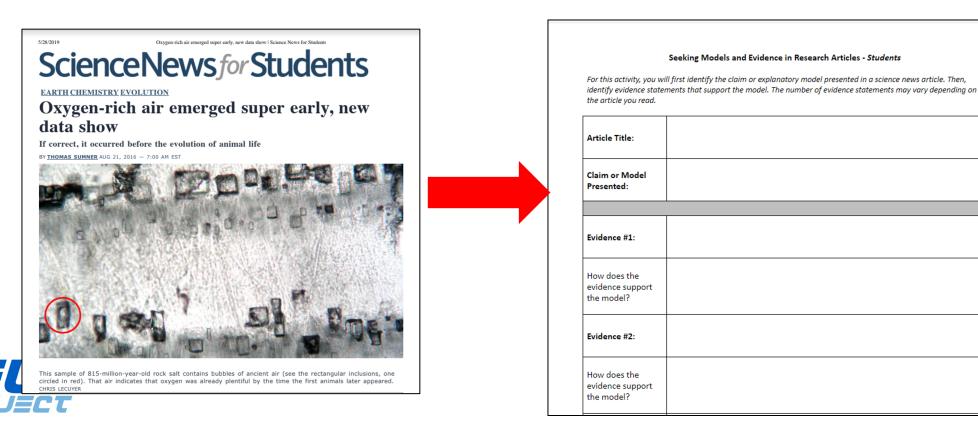
# Similar to C-E-R scaffold we started with:

- 1. Read article
- 2. Identify author's model (claim)
- 3. Find evidence presented that supports the claim
- 4. Explain how each line of evidence connects to the model
- 5. Assess plausibility of the model

#### Seeking Models and Evidence in Research Articles - Students For this activity, you will first identify the claim or explanatory model presented in a science news article. Then, identify evidence statements that support the model. The number of evidence statements may vary depending on the article you read. Article Title: Claim or Model Presented: Evidence #1: How does the evidence support the model? Evidence #2: How does the evidence support the model?

## Let's try!

- Read the article provided while annotating the important points
- Complete the transfer task (1 line of evidence) and questions 1-3



### The Transfer Task....

#### **Group Discussion:**

- 1. How did the plausibility evaluation classification (Question 1) vary among your group members?
- 2. What were the key lines of evidence presented?
- 3. How well did each line of evidence support the models individually and when coupled with the other lines of evidence?





### The Transfer Task....

#### Whole Group Discussion:

- Summarize your discussions.....
- In the chat (if we have time):
  - How did your discussion with your group help your understanding of the content of the article?
  - Did you identify additional lines of evidence after your group discussions?
  - Were there any alternative models presented in this article? If so, how did you rate them? Why?

### **Teacher Reflection**

Review student work and consider the following questions when assessing their responses.

- How do your students evaluate models when presented with evidence? In what ways might you modify this activity to help students think more critically about models and evidence?
- What did students do differently when evaluating articles compared to the MEL task? What similarities?
- What are some of the challenges for students in evaluating evidence to model connections?
- How do students consider alternative models in relationship to the model at focus of the article?

## Wrap Up

- Compare and Contrast the Transfer Task and MEL/baMEL
- How do you expect your students to respond?
- How else could you use this task, or something similar to assess students abilities to determine the plausibility of models based on the evidence provided?



## Up Next.... Implementation Plans



