

## **PURPOSEFUL QUESTIONS SENTENCE STARTERS FOR SCIENCE PROCESSES**

The following sentence starters can strategically set students up to think, reason, and collaborate productively as they engage in science processes:

### **Help students ask testable questions**

1. What questions do you have?
2. What background information would be helpful to do your investigation?
3. Which tools or materials would you like to use in your investigation?

### **Help Individual Students Share, Expand and Clarify Their Own Thinking**

1. What do you think will happen?
2. Why do you think that \_\_\_\_\_ happened?
3. Why does \_\_\_\_\_ happen when \_\_\_\_\_?
4. Will you always get the same results? How do you know?

### **Help students deepen their understanding of science content and phenomenon**

1. What results did you find during your experiment?
2. How did you communicate those results?
3. What observations did you make during your investigation?
4. What data did you collect?
5. How do you know that \_\_\_\_\_?
6. Why is it important to know \_\_\_\_\_?
7. What does \_\_\_\_\_ suggest to you?

### **Help Students Reflect on the Science Process**

1. What materials could also be used to explore further?
2. What background information would have been useful before you started?
3. How could you get the same results another time?
4. What details did you include in your model of this experiment? OR  
What details would you include if you were to draw a model of this experiment?
5. What questions do you still have about \_\_\_\_\_?

Adapted from

Michaels, Sarah, and Cathy O'Connor. (2012) *Goals for Productive Discussions and Nine Talk Moves*. Talk Science Primer. Cambridge, MA: TERC, p.11.