

Professional Learning Community 1.2
Chapter 2 of Teaching Science is Phenomenal (TSiP)
A STRUCTURE AND FUNCTION FOR SCIENCE TEACHING
How can we Best Organize Science Instruction?

Pre-Session and Review

Reading

1. Teachers should come to the PLC having read Chapter 2 of TSiP.
2. Bring an example of a lesson you use to teach science.
3. Bring an example of a phenomenon you use to engage students in science learning.

A. Round Robin Style Discussion – The full group listens as individuals present their ideas specific to the questions below.

- a) Why is it so important to let students explore the phenomenon at the beginning of a science instruction?
- b) What is an effective strategy you use to engage student in being curious about a phenomenon?

B. Whole Group Discussion – Bring science specific examples and experiences from your teaching to support the discussion of the questions below.

Reflecting on the structure of instruction

1. In this chapter, the authors identify present two models for instructional sequences. Review the two models and describe similarities and differences.
2. Why is engaging student in the phenomenon prior to having them developing questions important for science learning?
3. In what ways are the student performances for GRC organized around the science and engineering practices?
4. How does the 5E model create opportunities for students to apply their learning?
5. Why does the GRC lesson always engage student in gathering before they are expected to construct explanations?
6. Why is it important for teachers to engage in science learning along with the students?
7. Figure 2-5 shows the 5E model with multiple Explore lessons in the sequence. Why would some lesson sequences need to have students doing additional lessons on the explore phase?
8. How does having a clear structure for teaching science support learning?

C. Individual Reflections – Write in Journal

- a) Reflect on the importance of a structure for instruction. Think about your lessons and how you can structure science investigation and engineering design to move students toward applying the things they learn to phenomena beyond the classroom.
- b) Reflect on why it is important to teacher students how to engage in doing science by doing science is different than learning about science.

ⁱ Use the back of the page to answer the questions.
