



## STEM Middle School Mini Lesson Template

STEM lessons will take a transdisciplinary approach. This template is designed to aid in the development of a transdisciplinary STEM lesson.

Title:

Grade Level:

Questions to ask before designing a lesson:

1. What is the essential question(s) for the lesson?
  - a. Why is this question relevant?
  - b. What is the connection to real life?
2. What techniques are used to make the lesson:
  - a. inquiry- based?
  - b. project- based?
3. What are the lesson outcomes?
4. How is participant discourse promoted?
5. How are science, technology, engineering, and mathematics addressed in the lesson?



6. Use the table below to match standards.

Standard	Standard Number (s)	Activity
Common Core Standard for Mathematical Practice		
International Technology Education Association Standards for Technological Literacy		
Common Core Reading Standards for Literacy in Science and Technical Subjects		
Common Core Writing Standards for Literacy in History/ Social Studies, Science and Technical Subjects		
Maryland Science Skills and Processes Standards		



7. 5E Model – STEM lessons will use the 5E Model

5E Lesson Components	Description of Activity
<p><b>Engagement</b></p> <p>The activities in this section capture the participants' attention, stimulate their thinking, and help them access prior knowledge.</p>	
<p><b>Exploration</b></p> <p>In this section, participants are given time to think, plan, investigate, and organize collected information.</p>	
<p><b>Explanation</b></p> <p>Participants are now involved in an analysis of their exploration. Their understanding is clarified and modified because of reflective activities.</p>	
<p><b>Extension</b></p> <p>This section gives participants the opportunity to expand and solidify their understanding of the concept and/or apply it to a real world situation.</p>	
<p><b>Evaluation</b></p> <p>Evaluation occurs throughout the lesson. Scoring tools developed by teachers and participants target what participants must know and do. Consistent use of scoring tools improves learning.</p>	

