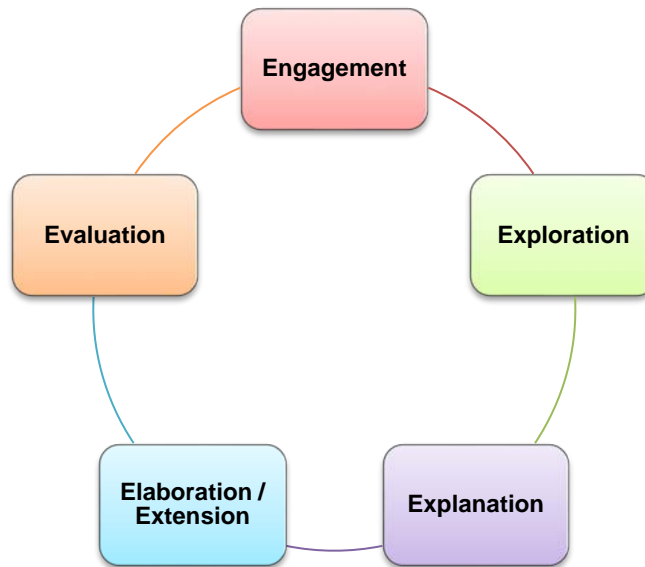


5E Model for Integrated STEM Instruction

The 5E model for integrated STEM instruction promotes the development of new understandings by building on prior experiences. The five stages of learning in the 5E model are Engagement, Exploration, Elaboration / Extension, Evaluation, and Explanation. The 5E model is not linear and evaluation typically occurs throughout the 5E cycle. It may take several days or several lessons to complete a 5E cycle.



	Description
Engagement	<ul style="list-style-type: none"> Teacher or student poses a real world problem, challenge, complex question, or global issue that relates to the content standards to be address in the lesson. Students brainstorm potential solutions or explanations.
Exploration	<p>Students</p> <ul style="list-style-type: none"> explore and make connections between science, technology, engineering, and mathematics. select and apply the appropriate systematic approaches to answer complex questions, to investigate global issues, and to develop solutions for challenges and for real world problems.
Explanation	<p>Students</p> <ul style="list-style-type: none"> analyze and interpret data. communicate understandings and possible solutions. use technology appropriately for analysis and communication.
Elaboration / Extension	<p>Students</p> <ul style="list-style-type: none"> refine solutions, prototypes, and/or models. modify experimental procedures for further exploration. identify and analyze connections to STEM careers.
Evaluation	<p>Students</p> <ul style="list-style-type: none"> reflect on their answers or solutions to the complex question, issue, challenge or problem. participate in peer reviews. demonstrate understanding through performance-based tasks.