

June 20, 2023

Scientific Models are simplified representations of the real world that allow scientists to better understand and make predictions about complex phenomena. These models can take many different forms including mathematical equations, computer simulations, physical replicas, or conceptual diagrams.

Brief outline of the agenda

- Dissecting lessons for use of models (the role of phenomenon, disciplinary core ideas, and crosscutting concepts).
- Using Appendix F to ensure proper grade band use of models.
- Computational Thinking and Models
- Have access to your curriculum (We will have time for you to revise/create a lesson or unit to include the learning of the day each day.)

June 21, 2023

Analyzing and Interpreting Data involves a wide range of techniques and approaches in order to understand datasets and develop insights into the data. Similar to scientific models, this science and engineering practice is related to several other practices.

Brief outline of the agenda

- Dissecting lessons for use of data analysis (the role of phenomenon, disciplinary core ideas and crosscutting concepts).
- Using Appendix F to ensure proper grade band use of data analysis.
- Sources of data and tools to encourage student engagement.
- Have access to your curriculum (We will have time for you to revise/create a lesson or unit to include the learning of the day each day.)

June 22, 2023

Three-dimensional science assessments are a type of assessment that evaluates students ability to apply science knowledge to real-world situations. These assessments measure students' ability to use science practices, crosscutting concepts, and disciplinary core ideas to solve problems and make sense of phenomena.

Brief outline of the agenda

- Evaluating questions for rigor
- Using Performance Level Descriptors.
- How to write three-dimensional assessment questions similar to the Missouri MAP/EOC assessments
- Have access to your curriculum (We will have time for you to revise/create a lesson or unit to include the learning of the day each day.)

June 23, 2023

STEM (Science, Technology, Engineering, and Mathematics) education refers to an interdisciplinary approach to teaching and learning in these fields. While there are plenty of instructional tools available to teach STEM concepts, we will use micro:bits which are small, programmable microcontrollers that have 5 integrated sensors.

Brief outline of the agenda

- Introduction to Micro:bits and coding (I will have plenty of micro:bits and materials, you only need a laptop).
- Engagement in physical computing projects designed to teach science concepts.
- Have access to your curriculum (We will have time for you to revise/create a lesson or unit to include the learning of the day each day.)