

# STEM Unit Planning Guide



## Integrated Content Areas

### Standards

*How do the standards in these content areas inform one another?*

**Big Idea**

### Learning Objectives

*How do your lesson objectives address standards in each content area?*

*What will your students know or be able to do as a result of this unit?*

### Key Terms

*What key terms will students be able to articulate by the conclusion of this unit?*

### Process Based Thinking

*Which process will students use to solve problems during this unit? Examples include: Design Thinking, Engineer Design Process, Claim Evidence Reasoning*

### Formative Assessment

*What strategies will be used to measure student understanding?*

*What open-ended questions will you ask to assess student mastery of content?*

*Are assessment strategies present for all content areas?*

*Do assessments clearly reflect the learning objectives?*

### Summative Assessment

*What are the criteria for success in the summative assessment task?*

## Community Connections and Partners

*Who in your community might you partner with?*

*Is there a real world connection?*

## Materials and Resources

*What materials are needed?*

*What websites or other resources will you use?*

## Lesson Procedures

### Real World Hook/ Introduction

*How will you engage the students? What is the real world "hook" that will intrigue their interests?*

### Student Engagement through Process Based Thinking

*What will students be asked to do in each step of process based thinking? What will students write and/or draw in their STEM Journals for each step?*

*How will students connect new information to what they already know?*

*In what ways will the student engagement allow for open-ended exploration and inquiry?*

### Student Presentation

*How will students share their findings? What form of presentation will they use?*

*Which community partners might provide feedback?*

### Student Reflection

*How will you help students summarize their efforts in this unit and pose questions that will lead to the next one?*