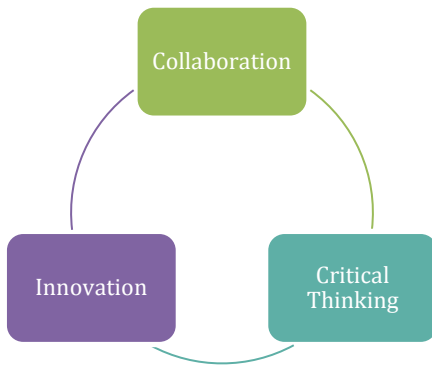


# STEM SCHOOL CHATTANOOGA

## 11<sup>th</sup> Grade PBL Unit Plan Template

Unit Quarter: 1<sup>st</sup>

Title: Chattanooga State Free Flyer Endurance



### Learning Target Topics

**Collaboration:** Working with other people on a project or problem to achieve a shared goal.

Critical Thinking: Accessing, using, and applying information and knowledge.

Innovation: Using creative thinking to construct something new and valuable.

Grade Level	11 <sup>th</sup> Grade	Unit Length	8 Weeks
Industry Partner	Chattanooga State Community College <ul style="list-style-type: none"> <li>Professor of Astronomy and Physics (Project Lead)</li> </ul>		
Unit Overview	STEM student teams will work with Chattanooga State professors to <i>design and create</i> a machine that safely moves a predetermined mass from point <i>a</i> to point <i>b</i> with predefined materials. The goal is to design and create a machine that flies a payload a maximum amount of time. For Chattanooga State, the focus is on the efficiency and functionality of the design. For the STEM School, the focus is on the collaborative skills demonstrated by the student teams.		
Unit Essential Issue	<ul style="list-style-type: none"> <li><b>Project:</b> <i>Design and create a machine that moves an object within defined parameters.</i></li> </ul>		
Kick Off Event	<b>Kick Off: Monday, Aug 24<sup>th</sup> (time TBD)</b> Student teams will meet with the lead for this project at Chattanooga State for an hour. Chattanooga State lead will introduce the project, provide some behind the scenes information, and set expectations for the project.		
Culminating Events	Student teams will present their machines to project lead and any individuals he selects. Presentations will take place at Chattanooga State and each team will have 15 minutes to present. Presentation should include a finished product that is a working machine. Presentations should also include information regarding project details on the design and build of the item. Teams will be judged by Chattanooga State on the quality of their products. <b>Culminating Event: TBA</b>		
Common Assessment	Students will be scored using the Association of American Colleges and Universities rubric for Collaboration. All 4's will equate to Advanced, scores of 3 and 4 will equate to Proficient, and any scores below a 3 will equate to Below Basic.  Items that will be used to score student work: <ul style="list-style-type: none"> <li>Presentation to Chattanooga State – must include explanation of issues</li> <li>Product (“working” machine)</li> </ul>		