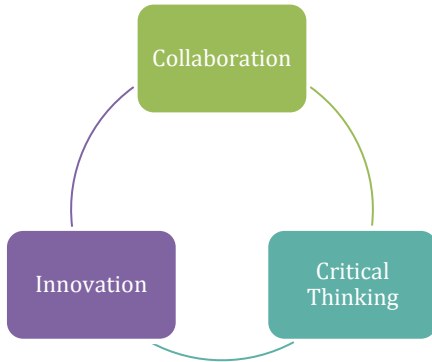


# STEM School Chattanooga

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

Unit Quarter: 4th

Title: Brave Bot Kinetic Sculpture



### 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	9 Weeks
Industry Partner	<ul style="list-style-type: none"> <li>Judith Spiegel, Martica Lambiase, Arts @ Erlanger</li> <li>Dr. Jennifer Keates, Erlanger Children’s Hospital</li> <li>Jennifer Homa, Pat Charles – Erlanger Public Relations</li> </ul>		
Unit Overview	STEM student teams will design and fabricate a functional and artistic “kinetic sculpture” to dispense Brave Bots to young patients at Erlanger Hospital. For the school partner, the focus is on development of an effective solution that positively impacts children receiving care at Erlanger Hospital while also meeting safety, sanitary, and reliability requirements. For the STEM School, the focus is on the critical thinking and innovation skills demonstrated by the student teams.		
Unit Essential Issue	<ul style="list-style-type: none"> <li><b>Project:</b> <i>Design and fabricate a kinetic sculpture to dispense Brave Bots to children receiving treatment at Erlanger Hospital.</i></li> </ul>		
Kick Off Event	<b>Kick Off: Week of March 21st</b> The sponsor will discuss the challenges faced by young patients at Erlanger Hospital, the background of the Brave Bot project, the desired goals for the Brave Bot project, and important project constraints.		
Culminating Events	<b>Presentation Day: Week of May 16th</b> The student teams will present their final Brave Bot “kinetic sculptures” to project sponsors. The project sponsors will evaluate the solution and provide constructive feedback to the teams.		
Common Assessment	Students will be scored using the Association of American Colleges and Universities rubric for Critical Thinking and Creative Thinking Skills. 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>Assignments (Plans, Weekly Prototype Reports, Design Process Work Products, etc.)</li> <li>Presentation/information flyer</li> <li>Brave Bot Kinetic Sculpture</li> </ul>		