**Final Project Assignment: Innovation Fest 2024**

It’s Innovation Fest 2024! Arguably, some of the most important steps in the engineering design process may be the test and share steps. This assignment offers you the chance to authentically demonstrate your proficiency as a STEM Champion to real children and their parents who will be attending the Innovation Fest 2024 in the STEM Lab during our class final on Tuesday, May 7, from 1:00 – 2:00ish. Our final time is from 12:45 to 2:45, this will provide time to set up and break down.

Specifically, you will develop and lead **three** technology and/or engineering design challenges devised for elementary students. These challenges should be suitable for integration into a STEM night at a school, or as a value-added exhibit that could be integrated into a children’s museum such as the Amazeum.

The three technology and/or engineering design challenges you choose should include:

* one high-tech challenge
* one low-tech challenge
* one challenge of your choosing

These **new** challenges can consist of any combination of original challenges unique to this class or reimagined and redesigned challenges based on those presented in our class. For instance, you might demonstrate your creativity and innovation by reimagining the ArtBot Challenge, Tinkering Challenge, Not a Box Challenge, etc. to serve a completely different objective. Your challenges should be:

* hands-on and maker focused.
* engaging and fun.
* educational (focused on at least one BIG IDEA).
* connected to children's literature.

On the day of the final, you will set up one of your three challenges selected by the class in the STEM Lab and lead your challenge for our K-6 guests as our class hosts of Innovation FEST 2024 (100pts).

Deliverables:

3 – one-pagers (see pages 71-72) (25pts. each) that describe the design challenge in detail including the following:

* Big idea
* Detailed description of the procedure including tools and materials
* Potential Assessment – what questions would you ask students along the way or following the challenge.
* Pictures or Sketches identifying what the students will make or do.
* A description of how you can modify the challenge for different age groups.

Workdays:

* April 23 – Ideation of ideas
* April 25 – Rough drafts of your one-pagers presented to the class – we will select the ideas that will be implemented
* April 30 – Refinement of presentations
* May 2 – Refinement of presentations – Final draft of completed one-pagers – this will be all for all three of your ideas; however, your idea that will be presented at Innovation Fest will include additional details and personalized pictures of what the students will make or do. Additionally, you will create a simple ½ page design challenge sheet similar to what you have seen at the Holcomb STEM Night and a graphic (Signage announcing your challenge) to display during Innovation Fest.
* May 7 – Innovation Fest – 12:45-2:45