Teacher Guide to Virtual Mentoring Sessions

Sample Timeline for One-Hour Session That Starts at 9:00am

8:45 a.m. **Teacher launches meeting**
Ask students with any video presentations to arrive early to check technology

9:00 a.m. **Arrival of Mentors/Introductions**
Teacher welcomes guest mentors
Mentors introduce themselves; quick ice breaker: 3 words that described you in HS

9:05 a.m. **Description of Session Framework**
Teacher describes framework for session
Time divided equally among groups (an ideal number of groups is three in one hour, which would allow for the following timeframe)
- Each group given 5 minutes to present project/pitch project
- Mentors then provide 10 minutes of feedback per group; other student groups may offer input as well
- Transition of 1 minute or so between groups

9:10 a.m. **Students Present Projects/Mentors Provide Feedback**
Teacher acts as timekeeper and calls on each group to present
See below for sample questions

9:55 a.m. **Wrap-up**
Teacher asks for students to provide any overarching lessons learned
Thank mentors for time

Resources for Project Presentations & Mentoring Feedback

For Students

- **STARTLAND's Pitch Flow**: Students may want to use this super easy to follow guide when preparing their project presentation, or "pitch" to mentors. STARTLAND uses this guide to assist students in preparation for pitching their product ideas to entrepreneurs. You can also find helpful tips & tricks here under the Pitch It as You Build It heading.

For Mentors

- **Engineering Design Process Question Guide:** Based on a portion of the rubric by which the students' design will be judged for the KC-Area PLTW Engineering Design Competition, this guide provides some questions mentors might ask students to help strengthen their projects. See attached.

- **STARTLAND'S Judge's Rubric**: Mentors may want to use this rubric as a guide when formulating questions about student projects. Likewise, students may want to use the guide to help strengthen their projects and presentations.

Engineering Design Process Question Guide

Presentation and Justification of the Problem

Goal: Students should clearly and objectively identify and define the problem with considerable depth. Moving forward with research, the problem will need to be well elaborated with specific detail; the justification of the problem should highlight the concerns of many primary stakeholders and be based on comprehensive, timely, and consistently credible sources; it should offer objective detail from which multiple measurable design requirements can be determined.

Questions for students:

What is the problem you are trying to solve?

How do you know this is a problem?

How would you test that theory?

Do you have the resources available to you to address this problem? Is it feasible?

Who else (primary stakeholders/users) would think this is a problem?

Is there market potential or positive social impact? Would someone pay to solve this problem?

What type of data or statistics would help explain the severity of the problem?

Where would you find timely evidence supporting that the problem identified is indeed a problem worth solving? What are possible and credible sources you could research?

Does the benefit of a possible solution justify the effort when weighed against need?

How would you clearly and concisely state your problem with cause and effect phrasing?