STEM Expo

Classroom Rollout Strategies

Taking on a project as big as the STEM Expo can be daunting. Use these strategies to help make it more manageable!

STEM Expo Resources Google Folder: https://goo.gl/qvrC7C

1. **Review each category with your students and show examples. (1-2 hours)**
    - Share every category with the whole class and encourage them to reserve their decision until they've heard about each one.
        - View the official category descriptions or the simplified category descriptions and the category rubrics
        - View past winners and event photos: stemexpo.org
            - Past Science Fiction Winners
            - A sample of 2017 submissions
            - 2018 Placer County photos
            - 2017 Placer County photos
        - Talk about Demonstrations VS Experiments (blog article)
    - Alternatively, restrict your class to fewer project categories.
        - This can be effective in elementary school and will be easier to manage.
        - Be sure to have a schoolwide discussion amongst your teachers about which categories you wish to open up in each grade.

2. **After students choose a category, then provide planning time! (1-3 hours)**
    - Give students time to do research on their own before selecting a topic.
    - Have students complete a planning form (feel free to take this one!)

3. **After researching possible project ideas, allow students who are doing projects in the same categories to talk in a group and brainstorm ideas. (1-2 hours)**
    - Provide groups with the category requirements and allow them to discuss. This will help clarify their understanding of the category. Use this document as desired.
    - Project groups may naturally form from these discussions as students share their interests.
    - Complete a project proposal form.

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4. **After some project work has been completed, have students go through a project tuning and/or peer critique with other students. (time depends on group size and chosen protocol)**
    - Project tuning and peer critique are powerful elements of PBL and can be used to refine STEM Expo projects.
    - Learn more about project tunings and peer critique here: https://gse.hightechhigh.org/design/critique.php
    - Project tunings and peer critique can be done at almost every age. The site above has protocols for tunings of varying length. Little experience is needed to conduct a tuning!
    - Peer critique can be repeated as project work progresses. These provide valuable perspectives that can help improve project work.
    - If you would like more detailed information on project tunings and/or peer critique contact your STEM county coordinator:
        - Glenn County - Darren Massa, dmassa@glenncoe.org
        - Placer County - Heidi Espindola hespindola@placercoe.k12.ca.us

5. **Have STEM Expo work days regularly, but not necessarily every day!**
    - You likely have other things to accomplish in your class...don't feel like you need to work on STEM Expo all day, every day.
    - As the Expo gets closer, make work time more frequent.
    - Provide reasonable goals or checkpoints along the way.