

GUIDING QUESTIONS

Kindergarten - 3rd grade

These questions can be used to guide students as they develop their projects. These are the types of questions that will be asked by the visiting scientists, and feedback about projects will be related to these ideas.

There are many options for possible projects, and the goal of the STEM Expo is simply to give students the opportunity to pursue something that is interesting in science, engineering, technology and/or math. This is a chance to take on a learning project at home, knowing they will get to share their work with the school and teach others about what they learned. If they are having fun, then the project is a success! *Adults should not feel pressure to make the visual presentation more than the students can prepare by themselves.*

Projects can simply be researching and reporting on something they want to learn and teach others about, collecting observations to investigate a question of interest, designing and/or building a machine, designing an observational study or experiment, etc. The type of project should just depend on individual interests and background, and adults involved should judge appropriateness of the project relative to time and resources needed.

I. Question statement/problem:

1. How did you decide on this topic?
2. Why does it interest you?
3. How did you research your project topic?

II. Project design:

1. How will (did) you investigate your topic?
2. Can (did) you work on this project independently? (How much adult help or supervision do (did) you need?)
3. Will (did) you conduct an experiment, make observations, design or build something, or explore and report on something that interests you?

III. Future research

1. Given what you know now, how would you have changed your project? Why?

2. Did anything unexpected happen during your project (or did anything go wrong)? What did you learn from it?
3. If you were to keep investigating this topic, what would you do next?

IV. Presentation of project for visiting experts in the classroom:

1. Does your style of presentation fit the type of project you did (i.e. does it make more sense to use a trifold board to present, or do a demonstration of some sort?)
2. How will you organize the information so that the audience can easily follow your process and understand what you did and what you learned?
3. Can you briefly describe your project and answer lots of questions about how you did your project and what you learned from it? Can you do this without reading from your board?

Poster display for the evening STEM Expo:

1. Is your objective or research question clearly stated on the board?
2. Is the information on the board clear and easy to read? Do you use charts and/or pictures to help display your information?