

National Science Competition: Creating and Refining Technology

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NSTA

Toshiba

Scientific Principles

- Throughout this entire project, you will need to be thinking about scientific principles and how they relate to your technology.

Here are some questions to consider:

- Why doesn't this future technology exist today?
- Is there something that is keeping this technology from developing?
- Is this possible to create?

Brainstorming/Questioning

- Name existing technologies that you would like to explore. Ex: Car, hair dryer, ipod, etc.
- Brainstorm the answers to these questions:
 - What makes this technology so good?
What is not so good about it?
 - How could it be improved?
 - Who needs help to do an activity? Is there a technology that could help him/her to do this?

Research: What can you discover about your subject?

- This is where we research how this technology was created, what/how it was developed, and how it works. You will make a list of your research sources to create a bibliography.
- The bibliography will be one of the submitted components in this project.

History of your Technology

- Your team will write a timeline and/or history of the technology based on the research that you found on your topic. The History will be submitted in the competition.
- Each team will explore how each technology has evolved over time. What do you notice about how the technology advanced? Was it very fast with a lot of changes? Or slow? Why?

Past leading to the Future

- Brainstorm ideas about how the technology could change in the next 20 years. How will it advance?
- This exploration and brainstorming will help you to later analyze how the breakthroughs can be achieved.
- Also, begin considering, What could be consequences of this future technology. How could it negatively impact our society?

Revise and Redo

Based on feedback that you received from your presentation, you will work with your team to improve your project. Here are some questions to draw out your ideas:

- Can you modify your technology to eliminate the problems that it has?
- Did your teacher or peers bring up any issues that you cannot seem to figure out how to solve?

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Test the idea

- Your teams will present their future technologies to the class.
- At this time you will consider the pros and cons of the technologies that you see presented. The feedback that you receive from your peers will become your “Consequences” section.

Web presentation

- Every good technology has a webpage to represent it. Think of a good webpage that you have seen that was describing a product.
- With your team you will prepare the project entries and draw up plans for the sample Web pages, including images of the future technology.
- Each website will have 5 pages total.