**Gizmos and Gadgets: The Inventor**

You are an inventor. You want to improve the quality of life at school, in your classroom, at home and/or in your community.

1. Create an object to achieve this goal.
2. Explain how the object will help.
3. To accompany your object, create a written explanation to share your new invention.

When you share your new object, your presentation should be creative and well-crafted. Make sure to include how your object convinces your audience that it will provide a solution to a need.

**Gizmos and Gadgets: The Biographer**

You are a historical biographer who studies important people in the science and technology world. You want to write about various people who have made contributions throughout the history of science and technology.

1. Research various scientists from the past through the present.
2. Decide how each of their contributions has affected our daily lives.
3. Develop a guidebook of “inventors.”

Your guidebook should be informative and well-crafted. It should convince your audience of why each of these people was important enough to include in your guidebook.

**Gizmos & Gadgets: The Engineer**

You are a structural bridge engineer. You are working with a company that wants to strengthen bridges so they can withstand natural disasters.

1. Explore bridge basics. Learn how forces, materials, loads and shapes affect the strength of a bridge. (A good website to use is: http://www.pbs.org/wgbh/buildingbig/bridge/index.html)
2. Go deeper by researching and evaluating various structural designs used in actual bridges throughout the world. This includes the history of bridges, their construction and the materials used throughout time.
3. Design and build a model of a bridge that you believe would best withstand the effects of nature.

When you share your bridge design with your audience, it should be detailed and thorough. Make sure to have a model of your design and explain the building principles you used in its creation. You may also want to simulate some natural disasters to demonstrate the strength of your bridge.

**Gizmos and Gadgets: The Entomologist**

You are an entomologist. Your job is to create a field guide about butterflies that are native to North Carolina.

1. Research butterflies which live in North Carolina.
2. Investigate butterflies by collecting data on butterflies found locally.
3. Create the field guide including visuals and characteristics of each butterfly.

Your field guide should be informative and well-crafted. Your audience should have an increased understanding of the variety of butterflies found in North Carolina.