**Create a Scientific Experiment**

Look at the world around you.  Think about things that you may have seen that have interested you and have made you think.  Ask a scientific question, your own question, that you would like to research and experiment with to find an answer.

**Procedure:**
Follow each step of the Scientific Method below and write your responses on a piece of paper. You may create a small poster or type your responses.

**1.  Ask a Question**

* One that is simple and exact such as **"What type of ball will bounce the highest on a metal bench?"** or **"Will a bean sprout grow better in sun or shade?"**-- basically, one that you can test with an experiment -- you choose the question.
* Avoid questions like, **"What tastes better, Coke or Pepsi?"** or **"Can I build a volcano?"**.
* Choose an experiment that you can recreate in class.  BE SURE TO GET **TEACHER** AND **PARENT/GUARDIAN** APPROVAL FIRST. Please email your idea to me and wait for approval before beginning

**2.  Make a Hypothesis**

Make an educated guess as to what you think the answer to your question will be.

**3.  Perform Research**

* Record important facts, new vocabulary and other things that you may want to know.

**4.  Create an Experiment**

* Make a list of equipment and materials that you will need.
* Describe the step-by-step procedure that you will use to complete the experiment.
* Conduct the experiment at home.  Make note of the controlled, dependent and independent variables.

**5.  Collect and Analyze Data**

* Record data from your experiment.
* Make a table or graph to display the results of your data.

**6.  Communicate Results**

* State your question.
* State your hypothesis.
* Demonstrate your experiment.
* Describe the equipment and materials that you are using.
* Include a step-by-step procedure.
* List the controlled, dependent and independent variables.
* Show any data that you collected to include tables or graphs.
* Was your hypothesis correct or incorrect and why?
* What conclusion can you draw from your experiment?

When your experiment is complete, create a short presentation to include all bullet points in **Communicate Results**.
You may do this in any way that you choose to include using posters, video, pictures, oral explanations, etc.

**You must be able to perform the experiment to the class OR you can take pictures or video.** Limit your presentation time to **5 minutes**.

**Restrictions:**

* **Unsafe materials**
* **Non-school appropriate experiments**
* **Using school-provided materials**
* No explosions!

**Useful Websites:**

* [**http://www.education.com/science-fair/**](http://www.education.com/science-fair/)
* [**http://www.sciencekids.co.nz/projects.html**](http://www.sciencekids.co.nz/projects.html)
* **Generationgenius.com**