## STEM Fair Student Project Timeline 2015

**Step 1:** **(Friday, February 10)**

1. **PURPOSE/QUESTION:** What do you want to find out? Choose a question/problem that interests you or a project/problem from the classroom list. This should be in the form of a question. The answer to the question will be found by doing the experiment. Complete the Project Proposal Form and return it to your teacher by the due date he or she has given you. When your question is approved, record it in a logbook.
2. Identify the **Manipulated** **(independent)** **variable** and the **Responding (dependent) variable**. Use the variables to help you narrow your research topic.

**Steps 2 – 8 should be recorded in a logbook as you complete them.**

**Step 2:** **(Thursday, February 19)** Do **research** on the subject you have chosen. It should include a list of books and authors or Web sites and URLs you have read to find the information. The research must be done **before** you do your experiment. This will help you to form your **claim** (hypothesis).

**Step 3: (Tuesday, February 24) CLAIM (HYPOTHESIS):** What do you think will happen in your experiment? This is a prediction of the outcome based on what you learned in the research report.

**Step 4: (Wednesday, February 25) MATERIALS and PROCEDURE:** What do you need to complete the experiment? This should be in the form of a list. What will you do, step-by-step, to complete the experiment? As you develop your list of steps to take, write them down first on a separate piece of paper. Number them in the order you will complete them. Then, write them in final form.

**Step 5: (Wednesday, March 4) Conduct the experiment.** Remember to do five or more trials. Record your results in the form of a chart. Keep good records. Be sure to list all variables that were controlled in your Log Book. It is a good idea to record your progress using photographs.

**Step 6: (Friday, March 6) EVIDENCE (RESULTS):** What happened? Display your data in the form of a chart or graph. Write an explanation of your chart or graph interpreting the data. Include inferences made from the data.

**Step 7: (Tuesday, March 10) REASONING (CONCLUSION):** What did you learn? The **Reasoning** paragraph should begin by stating whether or not your claim (hypothesis) was supported or not supported. *The Reasoning must be supported by evidence (details and/or data) from the investigation.* The Reasoning paragraph should conclude with an idea for further investigation (i.e. If you could do another experiment to learn more about this subject, what would you like to do?).

**Step 8: (Tuesday, March 17) CONSTRUCT YOUR BACKBOARD**. Everything you have done in steps 2 – 8 will appear on the backboard. The backboard should be neat and colorful, with a catchy title. Remember, you ***may not*** bring anything to the STEM fair ***except*** the backboard, your logbook, and your report. **Be sure your name is clearly marked on the back of the backboard and the front of your logbook.**