



**Thomas Johnson Middle School Science Fair Guide  
February 2010**

**Important Dates:** (*change as of February 16<sup>th</sup>, 2010 due to inclement weather*)  
**TJMS Science Fair Projects Due: February 23<sup>rd</sup>, 2010**  
**TJMS Science Fair Judging & Display: February 25<sup>th</sup> & 26<sup>th</sup>**  
**PGCPS Science Fair: March 26<sup>th</sup> -28<sup>th</sup>**

1. Science Fair Project Title:

2. Teacher:

Date:

3. List of materials needed:

4. Research Topic:

- a. Physics \_\_\_\_\_
- b. Biology \_\_\_\_\_
- c. Chemistry \_\_\_\_\_
- d. Earth Science \_\_\_\_\_
- e. Technology \_\_\_\_\_

5. Research Methods:

- a. Internet \_\_\_\_\_
- b. Indexes \_\_\_\_\_
- c. Encyclopedias \_\_\_\_\_
- d. Almanacs \_\_\_\_\_
- e. Other \_\_\_\_\_

6. Make your hypothesis: (See example below.)
  - a. Topic question: What effect does the wind have on the amount of water loss from the leaf surface of a Zebra plant?
  - b. Hypothesis: Wind on the leaf surface of the Zebra plant will increase the rate of water loss.

7. Use the Scientific Method:

The scientific method is a way to ask and answer scientific questions by making observations and doing experiments. The steps of the scientific method are to:

- Ask a Question
- Do Background Research
- Construct a Hypothesis
- Test Your Hypothesis by Doing an Experiment
- Analyze Your Data and Draw a Conclusion
- Communicate Your Results

It is important for your experiment to be a fair test. A "fair test" occurs when you change only one factor (variable) and keep all other conditions the same.

8. Research Paper:

- a. Introduction
- b. Methods and Materials
- c. Results: data from your experiment
- d. Discussion and Conclusions
- e. Reference List

9. Drawing Conclusions:

- a. Use of graphics
- b. Pie Chart
- c. Bar Graph
- d. Line Graph
- e. Pictures
- f. Photographs
- g. Drawings (detailed and neatly drawn)
- h. Tables

10. Science Fair Project Display Set:

- You need to draw, label, put your name and science teacher on the back

When you plan your science fair board, remember this is a case in which you CAN judge a book by its cover. If you do a really good job at completing your display, everyone will stop to look at your project. However, if you do a messy job, no one will take the time to discover all the fascinating research you have done or look at the results of your wonderful experiment or invention.

*Sample Science Fair Board*



Figure 7.1 Example of a Good Display

**PLAN YOUR BOARD:**

Make a small sketch of where everything will go. Lay it out before you glue anything down to make sure it looks good.

Design what the "center" of your board will be. This is where everyone will look first. Will it be the title or pictures? Everything else should be placed around this.

When you set up your board, put things together in an order that makes sense. Remember, we read from left to right so don't put stuff you did near the end (like the conclusion) on the left side of the board.

Student Name (print) \_\_\_\_\_ Date

\_\_\_\_\_

Student Signature \_\_\_\_\_

Parent Signature \_\_\_\_\_ Date

\_\_\_\_\_

Teacher Signature \_\_\_\_\_ Date

\_\_\_\_\_