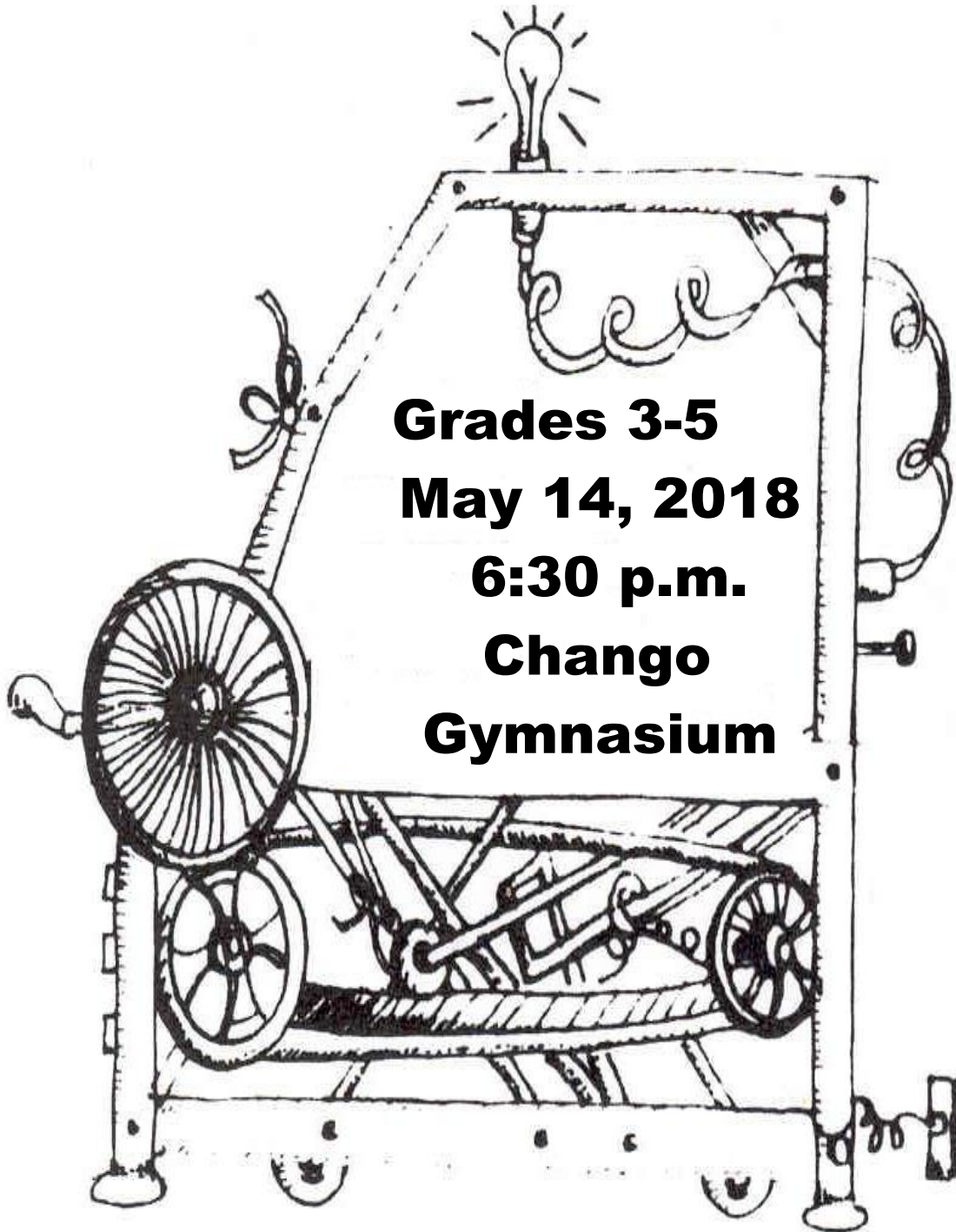


# **Chango's Eleventh Annual Science Fair**

**Grades 3-5  
May 14, 2018  
6:30 p.m.  
Chango  
Gymnasium**





## Interest Form

### Chango's Eleventh Annual Science Fair – 2018

We are pleased to offer an exciting opportunity to all students in grades 3-5 to utilize 21st century skills. We will be having a Science Fair on Monday, May 14th, at 6:30 p.m.

Each project must be related to an area of science, technology or engineering and include a brief written explanation. Experiments, investigations and demonstrations are fine. Posters alone are not science fair projects. Students may work on a project individually or with a partner. All projects must be approved by the Science Fair Committee before beginning. Parents are encouraged to help guide and supervise their child's progress. All work will be completed at home.

- March 12 - Interest Form due
- March 26 - Entry Form due
- April 11 - Committee Approval
- May 9 - 8:30 a.m. Meeting for students
- May 14 - 8:30 a.m. Project drop-off
- May 14 - 6:30 p.m. Science Fair

If you are interested in participating in the Science Fair, please fill out the Interest Form below (one form per participant) and return it to Mr. Jackson's mailbox in the Main Office by Monday, March 12th. In an effort to reduce our carbon footprint, a detailed handbook will be posted on the Chango website for your use. If you do not have computer access, please request a copy of the handbook on the form below. Thank you.

~ Mr. Kuhn and Mr. Jackson ~

Return to Mr. Jackson by March 12th.

My child, (first and last name) \_\_\_\_\_, in \_\_\_\_\_'s class, is interested in participating in the 2018 Science Fair. I understand that this project will take some serious commitment. I also understand that a second letter, including an official entry form, will be sent home. The entry form must be returned to school by Monday, March 26th.

Parent/Guardian Signature: \_\_\_\_\_

\_\_\_\_\_ I do not have access to the Chango website and request a paper copy of the science fair handbook.



# Chango Elementary Science Fair Entry Form



**\*\*Please return entire entry form by March 26, 2018.\*\***

**\*\*Please print neatly and spell carefully, as we use this information for our brochure.\*\***

Name (First, Last) \_\_\_\_\_

Grade \_\_\_\_\_

Teacher \_\_\_\_\_

I will work with a partner. \_\_\_\_\_ Yes \_\_\_\_\_ No

Partner's Name: \_\_\_\_\_

Partner's Grade: \_\_\_\_\_

Partner's Teacher: \_\_\_\_\_

Brief description of what I plan to do or exhibit: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## A Catchy Title for My Project (three - four words)

*(All partners should have the same exact title  
as it will be printed in our brochure this way.)*

I am aware of my child's project commitment and give him/her permission to enter the Chango Elementary Science Fair following the attached guidelines.

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_

**(PLEASE KEEP ATTACHED.)**



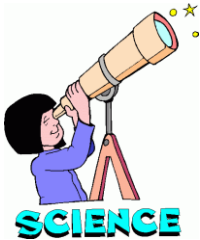
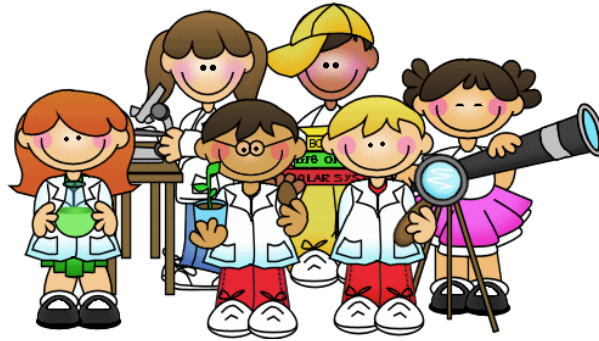
-----  
Name \_\_\_\_\_ Teacher \_\_\_\_\_

Name(s) of Partners \_\_\_\_\_ Teacher(s) \_\_\_\_\_

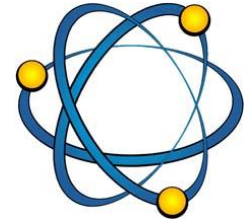
**\*\*\* To be filled out by Science Committee \*\*\***

Your Science Fair Project is approved. \_\_\_\_\_ Date \_\_\_\_\_

Committee Signature \_\_\_\_\_



## Chango Elementary School 2018 Science Fair



It's time to officially enter Chango's Eleventh Annual Science Fair and decide on your project. Each participant must fill out an entry form (attached) and return it to school by **Monday, March 26th**. Approval forms will be returned to children by Tuesday, April 11, 2018.

An idea packet, including display suggestions, is posted on the Chango website. In addition, there are a number of books set aside in the library that may be helpful in choosing a project. The students have seen a science fair video to help guide them in choosing and displaying their projects. Ideas may also be found on the internet.

Attached is a list of rules and suggested topics. Please review the lists, fill out all parts of the entry form, and return it to your classroom teacher or Mr. Jackson no later than **March 26th**.

We hope you decide to be a part of the Chango's Eleventh Annual Science Fair!

Mr. Kuhn  
Mr. Jackson



## Science Fair Guidelines



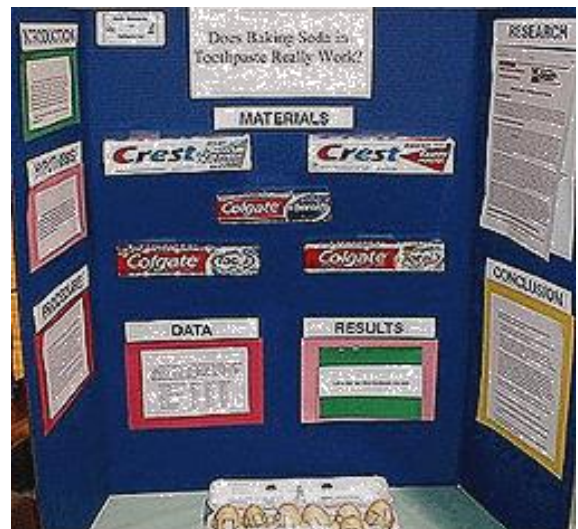
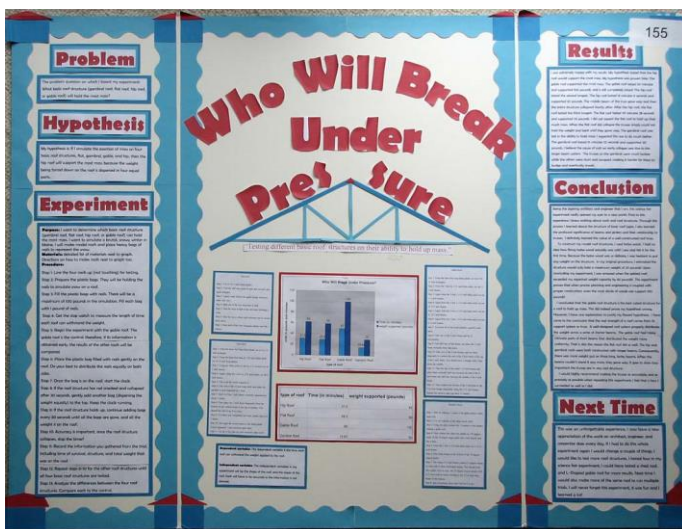
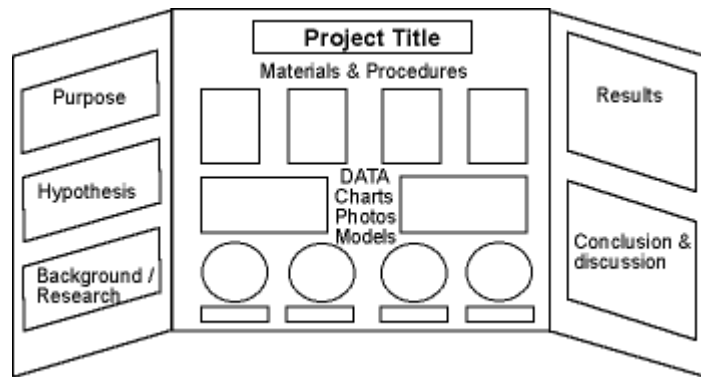
1. Each project must be related to an area of science. Experiments, investigations and demonstrations are fine. Posters alone are not science fair projects.
2. All projects must be approved by the committee before you begin.
3. Students may work on a project individually, with a partner, or in a small group. Teachers or parents may advise, but the work should be completed by the students. Parents should not build the exhibit or write the explanation.
4. Projects must be free standing and not utilize more than 30 inches by 48 inches of space on a table. Plan a neat and attractive display. We suggest you purchase a foam display board available at Staples, Wal-Mart.....
5. Label all exhibits with plainly lettered signs identifying each part and explaining its relationship to the whole exhibit. Your project should be clearly labeled with your first and last name(s), grade(s), and teacher(s).
6. Your project should include a written explanation that gives background information, what you did, when you did it and the results.
7. Live animals are **not** allowed.
8. No controlled substances, dangerous chemical, open flames, explosives or animal experiments allowed.
9. No handing out of food or candy is permissible.

**The Science Fair is held May 14, 2018 from 6:30 to 7:30 p.m. Projects need to be brought in that morning before school and all projects will need to be removed at the conclusion of the night. Thank you for your cooperation.**

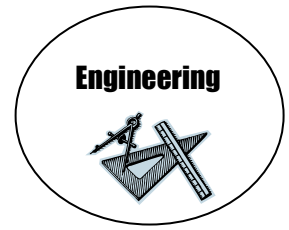
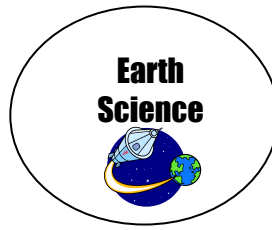
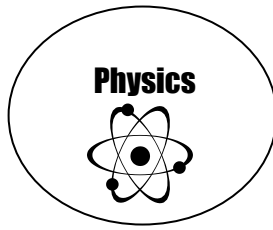
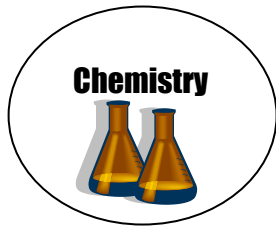
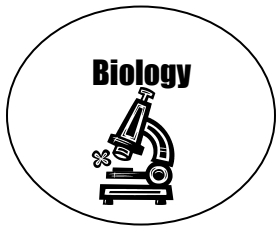


# The Display Board

When you plan your science fair board, remember this is a case in which you CAN judge a book by its cover. Make a small sketch of where everything will go. Lay it out before you glue anything down to make sure it looks good. When you set up your board, put things together in an order that makes sense. 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. 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.



# Internet Help



Here are some internet sites that may be helpful.

- Science Buddies  
[www.sciencebuddies.org](http://www.sciencebuddies.org)
- Scotch - Discovery - Education  
[www.scotchsciencefair.com](http://www.scotchsciencefair.com)
- Cyber-Fair  
<http://www.isd77.k12.mn.us/resources/cf/welcome.html>
- EXPERIMENTAL SCIENCE PROJECTS;  
An Intermediate Level Guide  
<http://www.isd77.k12.mn.us/resources/cf/SciProjInter.html>
- National Student Research Center  
E-Database of Student Research: Science Index  
<http://youth.net/nsrc/sci/sci.index.html>
- Science Fair Idea Exchange  
<http://www.halcyon.com/sciclub/cgi-pvt/scifair/guestbook.html>
- Science Fair Internet Resources  
[http://www.lib.lsu.edu/sci/chem/internet/science\\_fairs.html](http://www.lib.lsu.edu/sci/chem/internet/science_fairs.html)
- Science Fair Project Resource Guide  
<http://www.ipl.org/youth/projectguide/>
- Science Fair Projects: A Resource for Students and Teachers  
<http://www4.umdj.edu/camlbweb/scifair.html>
- Science Projects  
<http://www.scienceprojects.com>
- Super Science Fair Support Center  
<http://www.scifair.org>
- The Ultimate Science Fair Resource  
<http://www.scifair.org>

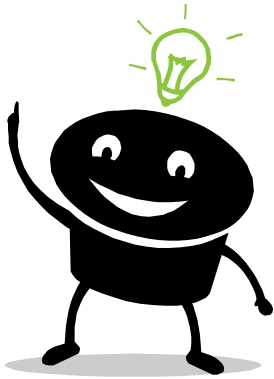


## **Science Fair Presentation Helpful Hints**

- Review Timeline (included).
- Sketch a rough layout on a piece of paper before pasting up your display.
- Photograph each step of your procedure.
- Come up with a catchy title and display it prominently.
- Include all required categories and content on your display.
- Tell the story of your science project in a logical, easy-to-read manner.
- Arrange items from left to right, from top to bottom.
- Space elements evenly across your layout, to achieve a balanced, consistent look.
- Use black or dark colors for type in a font that is easy to read.
- Make type large enough to read from four feet away.
- Label all graphs, charts, and tables.
- Write descriptive captions for photos.
- Proofread and double and triple-check all text before placing it on your display board.
- Be creative!



## Ways to Find a Science Fair Project Idea



1. Look at lists of **science categories** and pick one that you are interested in, then narrow that down to a project. (Example: say you pick psychology, then narrow it to the differences between boys and girls, then to a topic like "Do boys remember boy-type pictures (footballs) better than girl-type pictures (flowers)?" (Two lists of categories attached.)
2. Use **your experiences**. Remember a time you noticed something and thought, "I wonder how that works?" or "I wonder what would happen if..." then turn that into a project. Check the science section of the school **library**. Browse and look at book titles, then look inside the ones that look interesting to you. Also, the internet has a ton of great ideas. Before you decide to tackle a super awesome project, have a talk with your parents to decide if the project is possible.
3. Think about **current events**. Look at the newspaper. People are hungry in Africa because of droughts—a project on growing plants without much rain, which types grow okay with little water? Or the ozone hole over Antarctica—how can we reduce ozone? - a project on non-aerosol ways to spray things. Or oil spills. How can we clean them up? - a project on how to clean oil out of water.
4. Watch **commercials** on TV. Test their claims. Does that anti-perspirant really stop wetness better than other ones? Can kids tell the difference between Coke and Pepsi if they don't know which they are drinking? How much sugar is in your beverage?



# Science Fair Ideas!

Look at sample projects, look at this list, look at projects in books or projects from last year's science fair; then add your own question, your own idea to them.

**Don't just use these ideas.**

**Take these ideas and add something of your own.**

For example, change "Are dogs colorblind?" to "Are cats colorblind?" Or look at another of the five senses of dogs and test their sense of taste...

## Choose some of these:

- What material is the best insulator?
- Are dogs colorblind?
- Do soap bubbles last longer on warm or cold days?
- Are hot air balloons different from blimps?
- What is the best method, other than heat, to melt ice?
- What effect does oil have on water plants?
- What would happen to the weather if the earth was a cube?
- Do goldfish chemicals they sell you really help the fish adapt to the new aquarium?
- How can a tomato plant be grafted to a potato plant?
- How is sound obtained from a compact disk?
- How does a nuclear reactor work? How does it look?
- How is two-year old talk different from ours?
- How does burning gasoline make a car move?
- How do we tell how far away a star is from earth?
- What soils are best to build a house on?
- How do plants react to different kinds of music, different light, colors, and different neighboring plants?
- What is the best way to dispose of paper?
- Do plants move?
- Does music have an effect on animal behavior?
- Does music have an effect on plant growth?
- Which kinds of food do dogs (or any animal) prefer?



## Science Fair Ideas (Continued)

- Does the color of food or drinks affect whether or not we like them?
- Which paper towel is the strongest?
- What is the best way to keep an ice cube from melting?
- What level of salt works best to grow brine shrimp?
- Can the food we eat affect our heart rate?
- How effective are child-proof containers and locks?
- Can noise levels affect how well we concentrate?
- Does acid rain affect the growth of aquatic plants?
- What is the best way to keep cut flowers fresh the longest?
- Does the color of light used on plants affect how well they grow?
- What plant fertilizer works best?
- Does the color of a room affect human behavior?
- Do athletic students have better lung capacity?
- What brand of battery lasts the longest?
- What type of food molds the fastest?
- Does having worms in soil help plants grow faster?
- Does gravity affect how plants grow?
- Does the color of hair affect how much static electricity it can carry?  
(Test with balloons.)
- How much weight can the surface tension of water hold?
- Can people really read someone else's thoughts?
- Which soda decays teeth the most?
- What light brightness makes plants grow the best?
- Does the color of birdseed affect how much birds will eat it?
- Do natural or chemical fertilizers work best?
- Can mice learn? (You can pick any animal.)
- Can people tell artificial smells from real ones?
- Does age affect human reaction times?
- What is the effect of salt on the boiling temperature of water?
- Does shoe design affect an athlete's jumping height?
- What grass seed grows the fastest?
- Can animals see in the dark better than humans?



# Sample Timeline



## Sample Timeline for Science Fair Project

### Activity

### Time BSF (before the science fair)

- |  |                                  |
|--|----------------------------------|
| ➤ Decide on topic and develop question or solution | 7 weeks                          |
| ➤ Background research on topic                     | 6 weeks                          |
| ➤ Determine materials and purchase items           | 5 weeks                          |
| ➤ Set up project display supplies                  | 5-4 weeks (depending on project) |
| ➤ Shop for project display supplies                | 3 weeks                          |
| ➤ Prepare project display                          | 2 weeks                          |
| ➤ Prepare oral presentation                        | 1 week                           |
| ➤ Deliver presentation display to school           | 1 day                            |
| ➤ Science Fair Day                                 | 0                                |

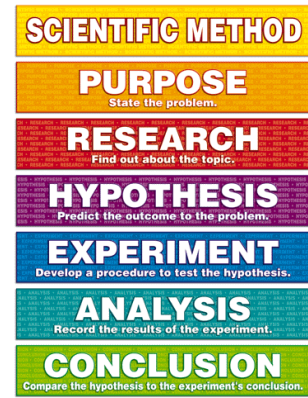
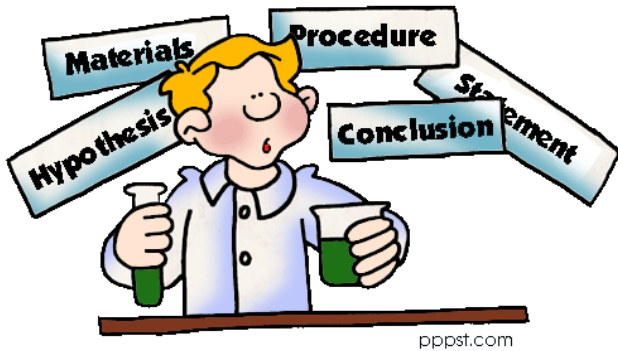
# Display Board



## Project Display Checklist

- \_\_\_\_\_ Problem (or question)
- \_\_\_\_\_ Background research (with citations)
- \_\_\_\_\_ Hypothesis
- \_\_\_\_\_ Procedure (or Experiment or Investigation) - Use a step-by step format.
- \_\_\_\_\_ Materials
- \_\_\_\_\_ Data (charts, graphs, tables)
- \_\_\_\_\_ Results
- \_\_\_\_\_ Conclusion
- \_\_\_\_\_ Name(s), Grade(s), Teacher(s)





## **The Scientific Method**

is an organized way of figuring something out.  
There are usually six parts to it.

1. **Purpose -** What do you want to learn? An example would be, “Do plants grow better under different colored lights?” or “Do girls have faster reflexes than boys?”
2. **Research-** Find out as much as you can. Look for information in books, on the Internet, and by talking with teachers to get the most information you can before you start experimenting.
3. **Hypothesis -** After doing your research, try to predict the answer to the problem. Another term for hypothesis is ‘educated guess’. This is usually stated like “If I...(do something), then ... (this will occur.)”  
  
An example would be, “If I grow plants under green light bulbs, then they will grow better than plants growing under red light bulbs?”
4. **Experiment -** The fun part! Design a test or procedure to confirm or disprove your hypothesis. In our example, you would set up a plant under a green light bulb and a plant under a red light bulb and observe them for a couple of weeks. Also, set up a plant under regular white light to compare to the others. If you are doing this for a science fair, you will probably have to write down exactly what you did for your experiment step by step.
5. **Analysis -** Record what happened during the experiment, also known as “data.”
6. **Conclusion -** Review the data and check to see if your hypothesis was correct. If the plant under the green light bulb grew better, you proved your hypothesis; if not, your hypothesis was wrong. It is not “bad” if your hypothesis was wrong, because you still learned something.