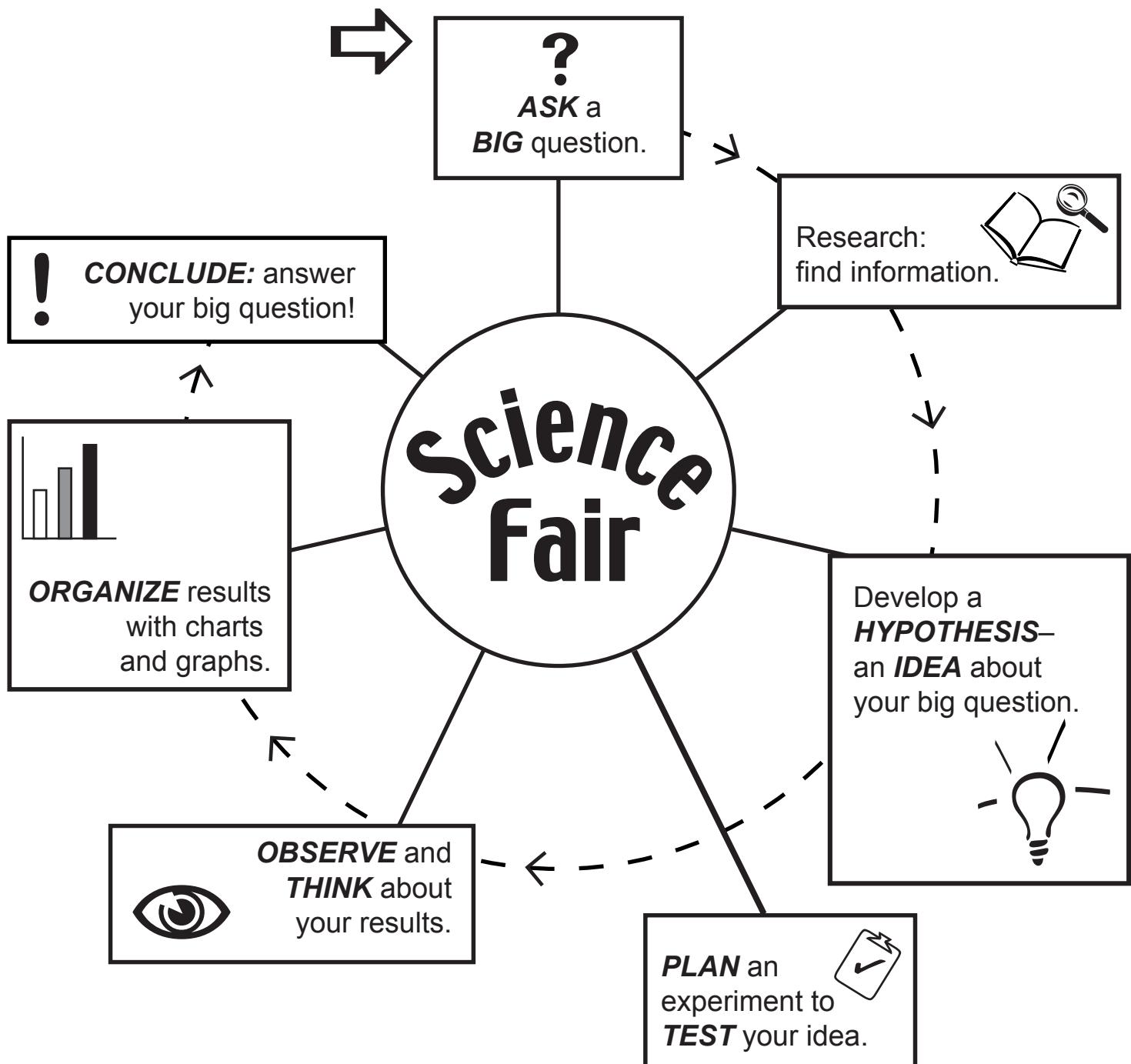


What's Important?



Think it through.

Developed by Les Nagy

Polk Bros. Foundation Teacher Leadership Network, DePaul Center for Urban Education

Keep It Simple, Smarty!

Use this checklist to organize your science project.

- Step 1.** Make a short list of things you are interested in learning about. Choose one topic that interests you and make sure you can find information on it ! For example, creating a rocket is complex, but contrasting different kinds of road salt is easy and appropriate, and you will find lots of information about icy roads and road salt.
- Step 2.** Form a big question to ask about your topic. Focus on a question you hope to be able to answer as you explore this topic.
*** This is your PURPOSE**
- Step 3.** Gather information about your topic. Use the research guide to help organize information you find in books, encyclopedias, and on-line to compile an interesting summary of a topic related to your experiment.
***This is your REVIEW OF LITERATURE.**
- Step 4.** Form an educated guess about your big question. Guesses or predictions do not have to be correct. Great scientific discoveries have come from making mistakes!!
*** This is your HYPOTHESIS.**
- Step 5.** Create an experiment that can help answer your big question. Write out the steps you will take in your experiment, list your materials, and don't forget variables and controls!!
***This is your PROCEDURE.**
- Step 6.** Carry out your experiment and record everything that happens. Try your experiment several times in order to collect as much data as possible.
***These are your RESULTS (data) and should be organized on charts and graphs.**
- Step 7.** Decide if your experiment helped answer your big question. If not, think of ways you might improve your project. You may need to make some changes.
*** This is your CONCLUSION.**

Name: _____ Grade: _____

Connecting Variables and Controls to your PURPOSE.

PURPOSE :

(*What do you want to find out by doing your experiment ?*)

A variable is something you change as you do your experiment. It is connected to your purpose. For example, if your purpose is to find out if a car's shape affects its speed down a ramp, you might build three cars, each with a different shape. Car **shape** is your **variable**. (Try to stick with just one variable.)

What is the variable you will be keeping track of in your experiment ?

Controls are things you keep the same as you do your experiment.

If you're trying to find out if shape affects how fast a car goes down a ramp, you would keep things such as the ramp size, weight of car, size of tires, etc., the same for all cars tested. These things that stay the same are your controls.

What are the controls in your experiment ?

Why is it important to have these controls ?

Use this page to help organize your research.

WHAT I READ (SOURCE OF INFORMATION) _____ .

Important words

Word	<i>What it Means</i>

Important Information

- _____
- _____
- _____
- _____
- _____

MAIN IDEAS from this Information:

Use this sheet to organize your EXPERIMENT

Purpose

- *What do you want to find out by doing your experiment ?*

Hypothesis

- *Form an educated guess about your big question. Don't worry about wrong predictions!!*

Procedure :

(The steps I will take in my experiment)

List your Materials:

Use this sheet to illustrate your experiment.

Draw a Picture of your experiment:
(Label the important parts !!)

Use this sheet to organize your RESULTS and DATA

Results:

- *Explain everything that happened when you did your experiment.*

Draw a chart to organize measurements or observations.

(use graph paper on the back of this sheet to graph this data.)

