

# Everything you need to know about the Blossom Hill Science Fair...in 30 minutes





# What is the point of this fair?

The science fair is a showcase. Not a contest!

- Develop interest in science
- Learn
- Have fun

### Every child gets a feedback form and a medal.







And a t-shirt. (Can't forget the t-shirt!)





# What kind of project should my child do?

The first time I signed up for the science fair, all I could think of was:



Don't worry, there are other projects!



# OK, then how to pick a project?

First start with something your child is interested in.



I mean other than computer games.



You know, something scientific.





Create a problem statement.

Determine a <u>hypothesis</u>.

Then come up with an experiment to test it.



# That's confusing. How about an example?

OK! Let's say your child is interested in magnets.



What is a <u>problem statement</u> (a question) that you can test with an experiment?



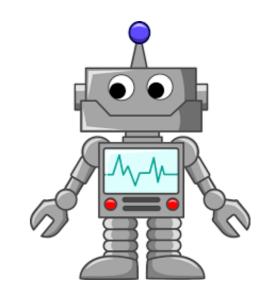
Remember, start with a question:

"What materials will a magnet attract?"



Don't start with a project:

"I want to build a magnetic robot."







#### **✓** Good Problem Statements

- Will a small magnet pick up more than a big magnet?
- How far apart can you hold magnets before they stop attracting each other?
- Do magnets work underwater or in other liquids?

#### X Not so good Problem Statements

- What is a magnet? (more of a research project)
- How do magnets work (too general, hard to test)
- Will two powerful magnets squish my brother's head (dangerous)



For today we will pick this problem statement:

"What materials will float above a magnet"?





## I'm ready for the next step.



Now we need a hypothesis.

A hypothesis is what we think could happen.

The hypothesis does not have to be "correct"!

If you disprove it you still have a good experiment.

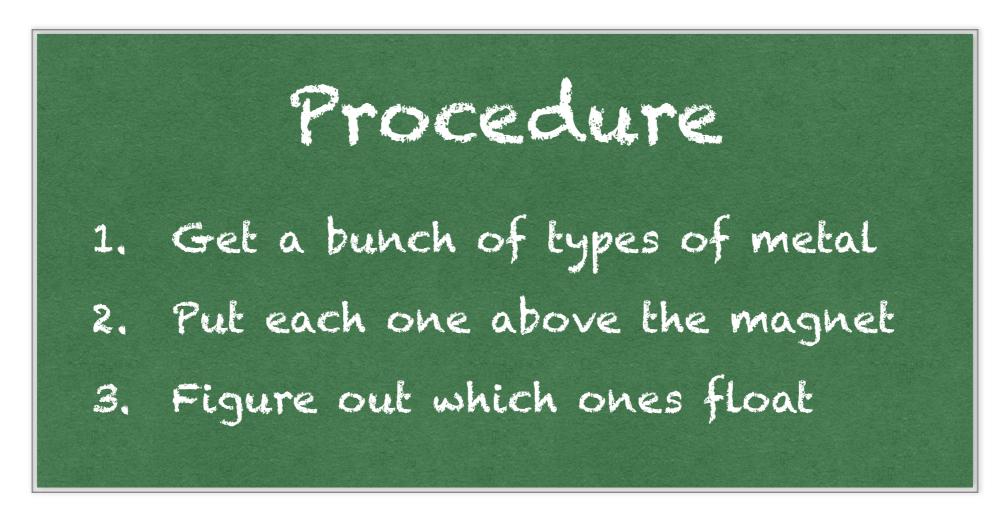
#### Our <u>hypothesis</u> will be:

"all types of metal will float above a magnet"





Now come up with a test <u>procedure</u>.



Also make sure to keep a list of materials you used.



# But what if something goes WRONG?

Something WILL go wrong.



It always does.

Probably the night before it is due.











Perhaps nothing floats above our magnet. Horrors!

Here is checklist of what to do:

Step 1 - PANIC.

**Step 2 -** Relax, and figure out how to change something.



#### **Change your test**

Make a ring of magnets and float things above that?

Try putting the magnet in a small, open-top box to keep things from sliding off

#### Change your question (problem statement)

Change from "what floats above a magnet" to "what can a magnet pick up?"

#### **Use estimates**

- →You may need to estimate some things; or to determine which data to include.
- →Make sure you note this on your board!
- →We want to teach our children that results are results, we don't just make it up.
- →And we don't change results to fit our hypothesis.



# Wait a minute. It sounds like <u>I'm</u> doing all the work. Who is doing this, me or my child?

An excellent question. Glad you asked.

- ★ Let your child do as much as they can on their own.
- This varies by grade, and by the individual child.
- ★ It is OK to help as needed and to "work together".
- Remember the goal is to have fun and enjoy science. To learn. And all that good stuff!



## What else do I do to finish the project?

Back to our magnet example.

You ran your test.



You recorded the data - the results - perhaps in a table.

(You did record the results didn't you)?

You took a few photos.







#### Now for your conclusion.

Another way to put it is, "what did you learn"?



You may need to do some research.



In our case we need to learn a bit about how magnets work.



You can put a short summary of your research on your board.





#### **Our Conclusion**

Magnets mainly attract (or repel) metals that contain Iron, Cobalt or Nickel.







Now your child records everything on the board.

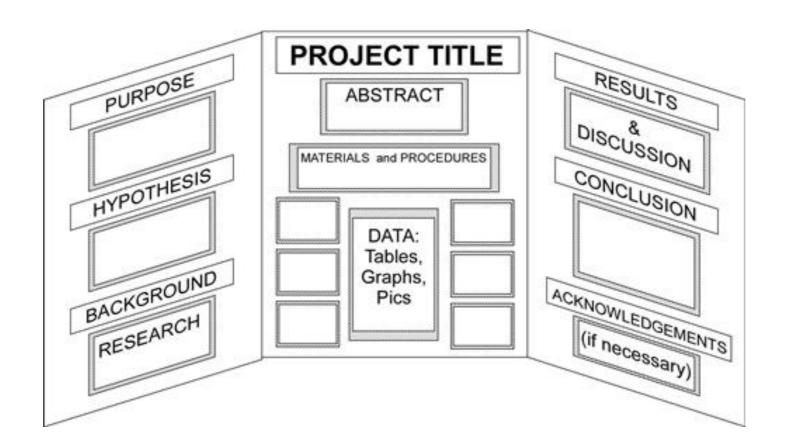
You bring it to the MPR on the due date.

And bask in the glory.



### But what does the board look like?

Visit "how to set up your project" on the science fair web site.



- a diagram of the board (above)
- video on "what makes a good science fair display".
- photos of sample boards

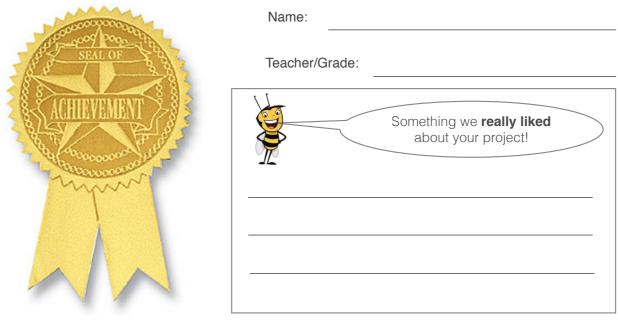


Also see the section "How Your Project Will Be Evaluated" on the web site.

You can view the project feedback form.

The feedback form is a great reference for what you need to do.

#### Blossom Hill Science Fair 2016-2017 Project Feedback



| Board Section       |   | ✓ Good Job | ✓ Room To<br>Grow |
|---------------------|---|------------|-------------------|
| Problem<br>Question | What question are you trying to answer?  • Problem is clear and specific  • Text easy to read from a distance   |            |                   |
| Hypothesis          | What did you think would happen?  Hypothesis easy to understand Hypotheses correct in format  |            |                   |
| Procedure           | What steps did your experiment follow?  • Steps listed in order and easy to follow  • Procedure aligned to the problem  |            |                   |
| Materials           | What materials did you use?  • All materials listed  • Clear and easy to read   |            |                   |
| Data / Results      | What data and results did your experiment generate?  The data / results were clear and easy to understand Includes pictures, tables, or charts as needed                              |            |                   |
| Conclusion          | What did you learn?  • Was your hypothesis supported, or not supported, by the data  NOTE: the hypotheses does not have to be "correct"; disproving the hypotheses is also a success. |            |                   |



### I still can't think of an idea.

Well, first see what your child comes up with. They might surprise you!

#### Otherwise:

Search the internet for "elementary science fair projects"



Choose something that fits problem-hypothesis-experiment approach.

Check out some sample boards.

Ask people who have already been in the fair.



# Tell me more about this all-important project display board.

Q: Do I have to buy it?

A: No. You will be given a board.

Q: When do I pick up my board?

A: January 30th

Q: Where do I pick up my board?

A: Table in front of the school

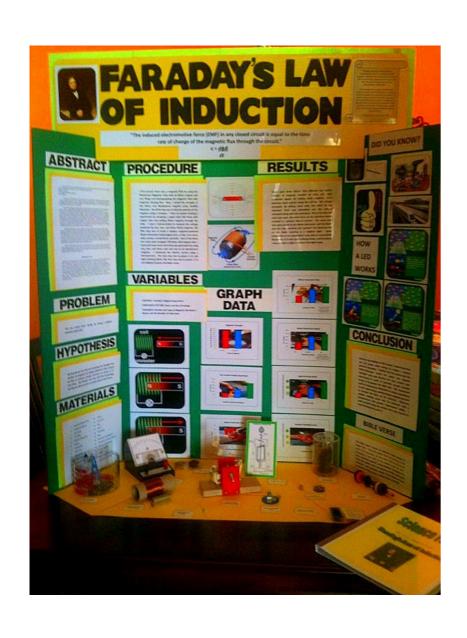


Q: What if miss picking up my board on January 30th?

A: Pick it up later in the school office



## Can I display stuff in front of the board?



Yes! In our example you could show the magnets and the materials.

#### But remember:

- Your display will be touched by kids (possibly even go missing).
- Put your name on ANYTHING you bring!
- 3. Pick display stuff up right at the end of the fair (or we may toss it).



Sure!

If you order something for the project make sure you have plenty of time.

What if it comes late?



Try and keep the project simple!



# What if my child wants to work with a friend?



We are fine with teams.

"What's gonna work? Teamwork!"

They can work on the experiment together.

Each team member must resister separately.

#### Rules for Boards

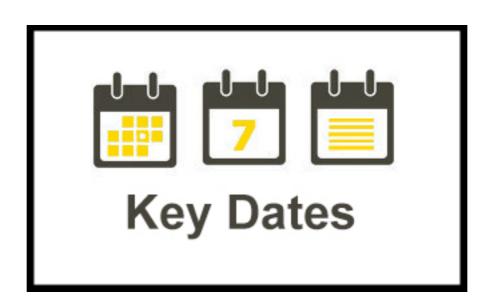
- 1. Same grade = one board for team (both names on it!)
- Different grades = one board for each child



# Will my child get to present their work?

- → During school hours their class will come through — they might get to present then.
- → During the main science night they can present.
- → Have your child stand by their board for the first 20 minutes.
- → Please go around and listen to other children!





Wednesday March 1, 2017

Project due in Blossom Hill MPR at drop-off.

Thursday March 2, 2017

Daytime: Classroom visits

Friday March 3, 2017

Daytime: Classroom visits

Evening: The Fair runs from 6-8pm



Any other questions?