"Rams in the Lab" Science Fair
**** March 20, 2014 ****

This information is provided in keeping with our goal of emphasizing the PROCESS of doing a science project rather than the product. *While awards are given, the emphasis of the Science Fair is to provide students with a fun, meaningful science experience.* All the helpful information you find in this packet will serve as a guide for this and many other science projects you will do for years to come!

Projects should be:

- Fun and interesting to the student
- Age-appropriate
- Displayed neatly, but an understanding of the subject matter is most important

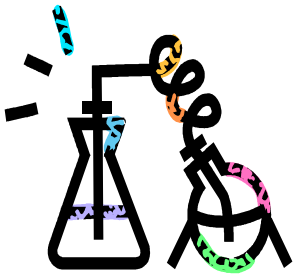
As a SCIENCE FAIR COMMITTEE, it is our role to MAKE YOUR SCIENCE FAIR EXPERIENCE AS ENJOYABLE AS POSSIBLE.

• 1st, 2nd, 3rd and participation awards will be offered for in 3 categories: KG & 1st, 2nd & 3rd, 4th & 5th
• Students can work with a friend(s) within a grade level. Siblings can work together on a project.

Check out the following website for Science Fair information and project ideas.

As a PARENT, your role is to ENCOURAGE YOUR CHILD'S PARTICIPATION.

There are many ways to do this without actually doing the project.
Some suggestions are listed here:
• **HELP** your child develop a list of possible projects, based on their interests and abilities
• **ARRANGE** for your child to get together with their partner, if they choose to work in pairs
• **HELP** your child gather materials & construct a time frame, transport the project to school.
• Make sure that the project is **safe** and **provide** supervision when necessary
• Write out any text provided by younger students who are unable to do so themselves, ***without compromising the integrity of their work***.



Science Fair Committee:
Mr. Ridle (cwridle@henrico.k12.va.us)
Mrs. Brown (mcbrown@henrico.k12.va.us)
Mrs. Cotman (jlcotman@henrico.k12.va.us)
Ms. Ratliff (klratliff@henrico.k12.va.us)
Mr. Turianski (mgturianski@henrico.k12.va.us)
Ms. Venne (mavenne@henrico.k12.va.us)

CHECK OUT OUR WEBSITE FOR MORE IDEAS AND INFORMATION:

www.tinyurl.com/ramssf

********** It's fun! **********

So sign up today by returning the participation form on page 2 by February 13, 2014!

Science Fair Participation Form

- **Deadline for submission: February 20, 2014**
- **Must be submitted and approved before beginning work**

Student's Name:_____ Teacher_____

Student's Name:_____ Teacher_____
if working with a partner

Science Project Title:_____

Brief description of what you plan to do:

Science Fair Committee comments:

Parent's signature:_____ Date:_____

☐ **I have read and understand the role of a parent in my child's Science Fair project (please check).**

Parent's signature:_____ Date:_____
(if working with a partner)

Name & Phone number of parent responsible for PICKING UP PROJECT BY 3:00 PM, Tuesday, March 25th: _____

Science Fair Committee approval:

_____ Date:_____

Note: If you change to a new project or change the plans you've written above, you must re-submit this form and wait for approval before beginning your new project!

PLEASE RETURN THIS PAGE BY FEBRUARY 13, 2014

COUNTDOWN TO THE SCIENCE FAIR

Use this form to keep your science fair project on schedule.

Check Off When Completed

_____ Choose a topic that you are interested in doing.

_____ Fill out the Science Fair Participation Form & return it to teacher by Feb. 13.

_____ Receive written approval from the Science Fair Committee.

_____ Research your topic as necessary. Record your references.

_____ Write out your procedure.

_____ Gather your materials.

_____ Work on your project.

_____ Carefully collect and record data and observations as you progress.

_____ Take and develop photographs, if needed, as you work.

_____ Make or purchase display board.

_____ Begin work on your display.

_____ **Deliver your project to school Thursday, March 20th by 8 AM.**

_____ **Attend the PTA meeting & Science Fair from 6:30pm to 7:30pm on Thursday, March 20th and proudly discuss your project with other students and parents!**

_____ Pick up project no later than Tuesday, March 25th at 3 PM.

Science Fair Web Sites (a great place to start!)

http://school.discovery.com/sciencefaircentral/ (of special note: the Handbook section)

http://www.brainpop.com/science/seeall/

http://www.usc.edu/CSSF/Resources/Good_Project.html

http://scienceclub.org/scifair.html
(Includes messages from students sharing science fair ideas!)

http://www.factmonster.com/science.html

http://www.all-science-fair-projects.com

PROJECT CATEGORIES

The following descriptions of project categories are general in nature, and merely meant as a guideline. Use these ideas, project suggestions list, and your imagination to create a unique project!
A project may seem to fall into one of 6 different categories. Choose the best fit and design your procedure and display accordingly.

EXPERIMENTS

- Using the Scientific Method to answer a question.
- Follow the "Experiments" guidelines outlined separately.

COLLECTIONS (K-2 Grade Levels Only)

- Of scientific specimens (shells, leaves, rocks, etc.)
- Try to ask a question that can be answered by describing properties, comparing, contrasting, or grouping your specimens (ex: How do you label and organize a rock collection?)
- Displays should be well organized by systematically compiling, classifying, and ordering the specimens.
- Descriptive terminology and comparisons (where found, characteristics of objects, etc.) will probably be important information to collect and display with your specimens

INVENTIONS

- Development of something new/novel
- Could be a creative way to solve a common problem
- State the problem or question that the invention is designed to solve or answer
- Does not have to be a marketable concept
- If possible, have a model for demonstration, if not, provide a detailed drawing/photograph
- There is no limit to this imaginative category!

OBSERVATIONS

- Try to ask a question that can be answered by using your senses and powers of observation to study a particular object or subject.
- Data collection and description will be important information for your display
- Describing properties of objects may be appropriate
- A diary or daily log may factor into your plan

MODELS

- A replica of a scientific theory, process or feature
- Be creative with the materials used in construction!
- Can be operational (example: volcano that uses baking soda and vinegar to erupt)
- Suggestion of points that can be included in your display (if applicable and age-appropriate, of course!):
  1. materials used
  2.drawings, photos, and explanations of the parts of the model
  3. historical perspective (ex: what, when, where were the most famous volcano eruptions?)

DEMONSTRATIONS of a scientific principle

- An explanation of how something works (like an electric motor) or why something happens the way it does (what causes rainbows).
- Be sure that you understand it thoroughly and can explain it to others.
- If possible, put together a working model (for example, a telegraph, a bell, or an electric motor).
- Suggestions to include in your display:
  - Detail in simple terms the scientific principle being demonstrated.
  - Identify key scientists who might have been involved in exploring this principle bibliography of references used.