

# Rock Springs Christian Academy Science Fair Packet 2018-2019

## OFFICIAL SCIENCE FAIR WEBSITES:

<http://www.societyforscience.org/isef/document>

View forms that are required to compete at all science fair competitions.

<http://www.georgiacenter.uga.edu/ppd/courses/academic-special-programs/georgia-science-and-engineering-fair>

## IMPORTANT REMINDERS:

- **Save Everything!** Everything you do or observe must be entered in your logbook along with the date and time.
- Do Not rip any pages from the logbook.
- Use ONLY blue or black ink in the logbook.
- Everything should be written in 2<sup>nd</sup> or 3<sup>rd</sup> person.
- Abstract must be typed, 12 font, Times New Roman print.

## SCIENCE FAIR PARTNERSHIPS (Only 2 allowed in a partnership)

Both participants will be responsible for keeping their own logbooks, but they will only turn in one abstract and backboard. LOGBOOKS MUST NOT BE IDENTICAL.

## DUE DATES

<b>TOPIC / EXPERIMENTAL IDEA</b>	<b><u>THURSDAY, SEPT. 27<sup>TH</sup></u></b>
(Must be approved by the teacher. Topics such as, “Which Brand of Paper Towels absorbs the Best” WILL NOT be approved.)	

<b>FINAL DUE DATE</b>	<b><u>WEDNESDAY, JAN. 9<sup>TH</sup></u></b>
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<b>RSCA JUDGING AT SOUTHERN CRESCENT</b>	<b><u>TUESDAY, JAN. 14<sup>TH</sup></u></b>
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<b>GRESA COMPETITION</b>	<b><u>THURSDAY, FEB. 7<sup>TH</sup></u></b>
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<b>STATE COMPETITION</b>	<b><u>MARCH 28<sup>TH</sup> – 30<sup>TH</sup></u></b>
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## LOGBOOK DETAILS

**LOGBOOK – NOT REQUIRED, HOWEVER to advance to GRESA a logbook must be submitted**

- Every entry must be dated.
- Your name, school name, and grade on front cover.
- Do not use white out – strike through mistakes with ONLY a single strike.
- Organized data tables and graphs will be stapled inside the book

- Copy of photos of you conducting experiment.

## **SECTIONS OF THE LOGBOOK**

- A. Topic**
- B. Table of Contents**
- C. Acknowledgements** – anyone that helped with the experiment
- D. Problem**
- E. Hypothesis**
- F. Materials List** – be very specific
- G. Procedures** - list procedures numbered exactly as you conducted experiment.  
Must use exact metric measurements.
- H. Data Collection** - all data, dates, conditions at time data was collected, mean, median, standard deviation, etc. Organize all data when finished into a table.
- I. Graphing the Data** - leave 2-5 pages so you can staple in graphs made on computer
- J. Discussion of Data/Results** - discuss your results/data findings and possible errors that may affect outcome.
- K. Conclusion** - discuss if hypothesis was accepted or rejected & how to improve project.
- L. References**
- M. Photos**

## **ABSTRACT DETAILS**

### **HOW TO WRITE AN ABSTRACT**

- Short and to the point (250 words or less)
- Must be typed on official form found on the website
- Use past tense and third person
- This is what the judges will read first at Science Fair.
- Write in paragraph form. Title at the top should be the same as the official title on all forms and backboard
- Include the following:

PROBLEM, PURPOSE, HYPOTHESIS, PROCEDURE, CONCLUSION

### **ABSTRACT TIPS**

- **Introduction:** Should explain reason for and purpose of experiment.
- **Summary of Info:** Should be organized, logical and your research should cover all the variables in your experiment.
- **Purpose of Experiment:** State your hypothesis and the variables. Use an “If . . . then” form for the hypothesis. Identify the independent (manipulated) and dependent (responding) variables.
- **Results:** Summarize your data and include statistical analysis, averages or differences, etc. DO NOT USE graphs and tables in the abstract.

Title: *Everything Grows*  
 Name: *Sammy Sample*  
 School Name: *Rock Springs Christian Academy*  
 City and State, Country: *Milner, Georgia, USA*

## SAMPLE ABSTRACT

*Nutrients contribute to any plants' overall growth and well-being, but which nutrient produces the most growth for a spider plant? The purpose is to discover which of the nutrients (nitrogen, phosphorous or potassium) affects growth the most. The experimenter researched that nitrogen helps build enzymes in living cells, so hypothesizes that if spider plant buds are placed in samples of baked soil that receive either nitrogen, phosphorous, potassium or nothing, then the plants given nitrogen will grow the most. The experimenter used the same amount of light, water, temperature, container size and topsoil for each. The same spider plant was used as the source of the plantlets tested. Four samples of potting soil (without added fertilizer) were baked in the oven, then had fertilizer added to each pot: group one- high-nitrogen fertilizer (N); group 2- bone meal (P); group 3- hardwood ashes (K); and group 4- nothing (the control). Ten plantlets were potted in each of the different soils and the experimenter used an average leaf length calculated from the leaf lengths for each leaf in each experimental group. After four weeks of growth, the hypothesis was rejected. Group 2 (potassium) showed the most growth (2.01 cm), followed by the nitrogen group (1.87 cm), the control group (1.52 cm) and then the phosphorous group (1.21 cm). Whether the result would be the same for other similar plants is unknown. This experiment could be extended by testing varying amounts of potassium to see the maximum effect on spider plant growth.*

## BACKBOARD REQUIREMENTS

The backboard is a presentation of your experiment. It should highlight your experiment, results/conclusions.

- You must have pictures showing yourself or group conducting the experiment.
- Must be organized, neat, & eye-catching.
- Present overall results in appropriate charts/graphs.

**Your backboard should be set up as shown below:**

