

# Science Fair: GETTING THE IDEA

**due: Mon May 14<sup>th</sup>**

**PLEASE EMAIL ME TONIGHT YOUR NAME & PHONE NUMBER!**

MrsG9064@aol.com

**Name** \_\_\_\_\_ **email:** \_\_\_\_\_ **phone #** \_\_\_\_\_

A science fair project! What to do? Do I have to find a cure for cancer? A way to end pollution? An endless supply of inexpensive electricity? HELP! You're not expected to win a Nobel Prize with your very first project (that can wait a year or two!) What are you expected to do? First, you've got to select a topic. And, how, you ask, do you do that? This should help; just fill in the blanks.

**LIST 10 THINGS YOU ARE INTERESTED IN** (piano, football, computers, people watching, reactions, plants, skateboards, animals, photography) **OR, 10 THINGS YOU HAVE WONDERED ABOUT** (Is black print easier to read than blue? Do brown eggs have more cholesterol than white? Would a helicopter fly better with more blades?)

- |          |           |
|----------|-----------|
| 1. _____ | 2. _____  |
| 3. _____ | 4. _____  |
| 5. _____ | 6. _____  |
| 7. _____ | 8. _____  |
| 9. _____ | 10. _____ |

Now, pick the 4 most interesting topics & ask yourself 5 questions about each one. For example, let's say you really like football. Your questions might include, "Can I write a computer program to predict the outcome of this year's NFL games?" "Would young players learn faster if the coach used a computer to diagram plays?" "Do Pac-Man whizzes make better passers?" "Do players with thicker necks suffer fewer injuries?" "Does artificial turf produce more touchdowns?" "What is the relationship between body fat & running speed?" Get the idea? OK, before you start on your questions, read through this list of banned projects below.

## **PROJECTS THAT WILL NOT BE ACCEPTED**

1. *Surveys* that involve opinion sampling, product use, taste testing, etc.
2. *Models* (volcanoes, solar panels, electric circuits), *Collections*, *Demos* (how a battery works), & *Kits*
3. Anything in violation of animal or other fair regulations (tobacco, explosives, rocket fuel, etc.)
4. Projects with small sample sizes or ones where it would be impossible to do a lot of tests & trials
5. Illogical or "Who Cares?" tests (effect of Gatorade on plant growth)
6. Projects in which the results are common knowledge
7. Projects which duplicate standard class/text experiments
8. Anything with purely subjective measurements or preferences
9. Product testing (which is best?) that lack science
10. Projects in which the results will take years & years of research (do vaccines cause autism?)

## **PROJECTS UNLIKELY TO BE ACCEPTED** (these are either too common, too easy, or too hard)

- |   |  |
|---|--|
| 1. Effect of colored light on plants (or anything else)         | 23. Ball bounce tests with poor measurement techniques   |
| 2. Effect of music on plants (ditto)                            | 24. Reaction Times   |
| 3. Effect of talking on plants (ditto)                          | 25. Many male/female comparisons, especially if bias shows   |
| 4. Effect of cigarette smoke on plants (ditto) -- NOW FORBIDDEN | 26. Basic planaria regrowth  |
| 5. Mold growth  | 27. Detergents vs. stains  |
| 6. Crystal growth   | 28. Basic solar collectors   |
| 7. Effect of cola, coffee, etc. on teeth                        | 29. Acid rain projects (Important: to be considered, thorough research into the composition of acid rain and a scientifically accurate simulation of it would be necessary.) |
| 8. Effect of running, etc. on blood pressure                    | 30. Basic flight tests, e.g., planes, rockets  |
| 9. Effect of music on blood pressure                            | 31. Battery life (plug in and run down type)   |
| 10. Effect of video games on blood pressure                     | 32. Basic popcorn volume tests   |
| 11. Effect of almost anything on blood pressure                 | 33. Stills (alcohol) of any kind (PROHIBITED)  |
| 12. Do we eat balanced diets? (data usually unreliable)         | 34. Pyramid power  |
| 13. Strength/absorbency of paper towels (and other products)    | 35. Basic flower preservation techniques   |
| 14. Most consumer product testing of the "Which is best?" type  | 36. Taste comparisons, e.g., Coke vs Pepsi   |
| 15. Graphology  | 37. Smelling vanilla, etc., to improve test scores   |
| 16. Astrology / Optical Illusions                               | 38. Sleep learning   |
| 17. ESP, especially standard card test                          | 39. Taste or paw-preferences of cats, dogs, etc.   |
| 18. Basic maze running  | 40. Color choices of goldfish, etc.  |
| 19. Any project which boils down to simple preference.          | 41. Basic chromatography   |
| 20. Effect of color on memory, emotion, mood, etc.              | 42. Wing, fin shape comparison with mass not considered  |
| 21. Effect of color on taste.                                   |  |
| 22. Effect of color on strength.                                |  |

You may email your ideas to Mrs Gillum OR bring them to her **BY THIS MONDAY: May 14<sup>th</sup>**. At that time we'll set up an interview time to discuss your ideas and finalize your project idea! My email is: Mrsg9064@aol.com

Write down your 4 favorite topics below. For each, develop 4 thoughtful & testable questions & record them.

Again, be realistic about the amount of **time** needed for testing, available **resources**, & **HOW** you are going to test the idea.

**Last Step: Circle your favorite ideas (the ones that you would REALLY like to do!)**

**Topic #1:** \_\_\_\_\_ **My 4 project ideas about this topic are:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Topic #2:** \_\_\_\_\_ **My 4 project ideas about this topic are:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Topic #3:** \_\_\_\_\_ **My 4 project ideas about this topic are:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

**Topic #4:** \_\_\_\_\_ **My 4 project ideas about this topic are:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

#### **Idea Banks:**

**You can Google these for the web address:**

All Science Fair Projects  
Science Buddies Project Ideas  
Education.com Science Fair  
PBS Kids Science Fair  
Cool-Science-Projects  
Canadian Science Fairs SciFair.org  
**READ!!!** Read the newspaper, magazines, blogs, the internet. Look for interesting topics, new scientific discoveries, anything that may pop a few ideas into your head. Go to the library and browse through science books. Here are some interesting websites:

Science Daily: a source of major scientific news articles, browse by interest

Science Magazine: scientific research & news

Go to Google News & search for a topic that interests you. Check out the latest news on that issue. Perhaps you'll find something testable!

#### **Web Sites for additional assistance:**

**Mrs Gillum's Site:** <http://mrsgillumscience.com>

**Mrs Schumacher's Site:** <http://erinschumacher.com>

**San Diego City Science Fair:** <http://www.gsdsef.org>  
<http://www.gsdsef.org/GeneralInfo/links.shtml>

**CA State Sci Fair:** <http://www.usc.edu/CSSF/>  
<http://www.school.discovery.com/sciencefaircentral>

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

<http://pbskids.org/dragonflytv/scifair/index.html>

<http://www.cool-science-projects.com/index.html>

<http://www.cdli.ca/sciencefairs/intermed.html>

<http://www.scifair.org/projects/>

**Science Buddies SF Guide**

[http://www.sciencebuddies.org/mentoring/project\\_guide\\_index.shtml](http://www.sciencebuddies.org/mentoring/project_guide_index.shtml)

**Lakewood Public Library Guide**

<http://www.lkwdpl.org/study/sfair/>

[http://www.ri.net/schools/East\\_Greenwich/Cole/sciencefair.html](http://www.ri.net/schools/East_Greenwich/Cole/sciencefair.html)

**Reminder: Use these only as suggestions to get your creative juices flowing.**

**You may not copy another project**