



This is a required assignment for Honors Biology Students

General Science Students



are encouraged to participate in the Science Fair as well or become a Science-Olympiad team member.



Biology Summer Assignment

Due: September 10 and 11, 2009 (the second day of class)



Over the next few weeks of summer break, **all Biology Honor/ GT students are required** to complete some initial research for his or her science experiment. Evidence of this research will be collected when you come to your science class. *This will be your first grade of the year. Follow the guidelines below. You have all summer to do this, but don't wait until the last minute. Summer goes by fast!! Have fun and do your best!*

Your assignment is to propose three research based ideas you are most interested in as possible Science Fair Projects. To do this, you must go to your local library, locate and read at least three different articles in *current* scientific journals (2006 to present) that pique your interest. Write a paragraph for each article that includes:

- A *brief* summary of each article. **This must be typed or written neatly in blue or black ink.**
- Describe how you will take the information presented in the article, and design a testable experiment. *Do not repeat the experiment discussed in the article. Go beyond.* Choose a unique angle and make the experiment your own.
- Explain why this topic interests you and identify the question that you are trying to answer.
- Include a bibliography citing of each source.
- Attach a copy of the "article" to your written paragraph

Remember to do this for each of the three articles. You need to have a first choice for an experiment and two additional ideas as backup. Your Biology teacher will collect this assignment on the first & second day of class. Final project choices will be based upon student-teacher collaboration.

*****Experiments that involve DNA, organisms with a backbone, or human subjects are NOT recommended! (In addition to teacher approval; Physician or veterinarian supervision is required!!!)**

Note: Choose a topic that truly interests you. This will make your experience much more fun. Categories include but are not limited to Ecology, Botany, and Environmental Science. Many scientific journals and magazines can be found "online" or you can go to the local library. Do not use a newspaper or non-scientific magazine.

Remember research must be current and can be defined as being published during 2006 to the present date.

Scientific journal and /magazines include sources such as the following:

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| ○ Science News | ○ Nature |
| ○ Scientific American | ○ New England Journal of Medicine |
| ○ Journal of (anything scientific) | ○ Discover |

★ *Students may access many of these journals through the school's databases. Please, email our FCHS Librarian for help with passwords. (cmjohnston@fcps.edu)

You may go to the **Science Fair website** to get the rules of the international science fair, rules by which all FCHS science fairs must be governed. <http://www.sciserv.org/isef/students/wizard/index.asp> Students are encouraged to be sure that their project ideas adhere to the "international rules" even at the local level.

Visit the Falls Church High School web page for additional information at: <http://www.fcps.edu/FallsChurchHS/>
Questions? Contact Mrs. Bellamy (Science Dept Co-Chairperson) mbellamy@fcps.edu

Note: If you plan to grow plants, be prepared to start immediately after approval. If your potential project involves animals or hazardous materials you will require very specific permission forms prior to starting your research. PLEASE refer to ISEF rules &/or contact me for details. (M. Bellamy)