Pre AP Biology Summer Assignment

All Biology students are required to complete a Science Fair project throughout the class. In order to get a head start on the project we are requiring the completion of a summer assignment.

The pre-AP Biology summer assignment is researching and developing **3 possible science fair topic** ideas. You are not required to have the exact title of your project developed over the summer; however, a general topic is needed. You must provide an explanation of how each project will be completed along with a list a materials needed to complete the project.

You will need to provide **3 sources** (book or internet) that provide information about each topic. Include as much information about the source as possible, such as URL, title, author, publication information, etc. This work beforehand eliminates issues later concerning cost of experimentation and availability of materials.

In addition, students must also begin identifying adult sponsors for the project. An adult sponsor is one who is knowledgeable about the subject being tested and will be able to assist the student in setting up and completing the experiment. Sometimes it is sufficient for the parent or guardian to act as the adult sponsor. However, please keep in mind that all projects using hazardous materials such as bacteria, mold, yeast, and any other microorganisms must be done in an approved lab setting. Such projects also require the advisement of a qualified scientist (someone with a degree in the subject area) as well as an adult sponsor. For example, local colleges can be contacted to request use of their facilities and will require a faculty member of that institution to be the qualified scientist. Teachers will not call and set up appointments with scientists for students. It is the responsibility of students to communicate with scientists.

All aspects of the project must be approved by the student's teacher before the project can be started. The summer is a time for research and preparation, not experimentation. For project ideas, the internet may be used but topics must be modified in some way in order to eliminate copying someone else's project. **Topics that are the same as previous projects or internet projects will not be accepted.** Science fair ideas can be found at www.secondaryinstruction.com under the science fair tab. Remember that topics should follow the scientific method and be reflective of a Columbus High Student.

Requirements (must be completed for all 3 ideas):

1. Choose a topic: pose a question. If internet resources are used for ideas, the project should be modified by the student. The student should design a new project and not copy a project already completed.

2. Research- Find books, journals, magazines, resource people, videos, and any other source that contains information pertaining to your chosen topic. You must find at least 3 sources and write a brief description of each source.

3. Methods and Materials (Procedures) - Written plan of how to carry out the experiment and what materials will be needed. Remember to check availability and price of materials. (This is not final but is a great way to avoid choosing a project that cannot be completed in the time allotted or being too expensive.

4. Identify Adult Sponsors

5. Identify qualified labs and scientists if applicable. (Non-hazardous materials do not require a lab)

All students are required to complete the Science Fair Topic Plan worksheet for each topic. They should turn all three topic worksheets during freshmen orientation.

Parent Signature:_____ Student Signature:_____

Science Fair Topic Worksheet

(You should complete 1 worksheet for each of the 3 topics you choose)

Name: _____

Proposed Topic/Idea:_____

_____

Research: You may write URLs or book titles

Source #1

URL or Book Title:_____

Summary:_____

_____

_____

_____

_____

_____

Source #2

URL or Book Title:_____

Summary:_____

_____

_____

_____

_____

_____

Source#3

URL or Book Title:_____

Summary:_____

_____

_____

_____

_____

_____

Materials List	**Cost:**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Proposed Methods:_____
_____
_____
_____
_____

Adult Sponsor:_____**Title**:_____

If working with hazardous materials please list the approved lab you will be conducting the experiment and the qualified scientist.

Lab Name/Location:_____

Qualified Scientist:_____

Please refer to the rules and guidelines located at www.societyforscience.org/isef if you have any questions.

Parent Signature: _____Student Signature:_____