

SUMMER READING ASSIGNMENT

9th Grade Biology

Westfield High School

DUE: First Day of Biology Class September 2009



***If you are enrolled in Biology I next year, please complete the assignment described on pages 1 and 2. If you are enrolled in Honors Biology, please complete the assignment described on pages 3 and 4. These assignments will also be posted on the Westfield High School Web site over the summer. If you have any questions regarding the summer reading assignment, please contact Mrs. Zschoche at christina.zschoche@fcps.edu.**

Assignment for Biology I Students

To encourage and promote reading during the summer months, all Fairfax County Public School students grades five through eleven are required to complete a reading assignment before the next school year begins.

For rising 9th graders enrolled in Biology I, you must choose a book below. All are related to science in some way. You must write down brief, but detailed summaries of each chapter. On the back is the suggested way you write your summaries for each chapter. You can either photocopy the back a few times to match the number of chapters you have, download it off the Westfield homepage (<http://www.fcps.edu/WestfieldHS/>), or create your own that is similar to the format. It can be in either typed or written format. *You will be required to turn in your chapter summaries the first day of biology class in September 2009.*

Borders, Barnes and Noble and your local library are good local places to start looking. Websites such as amazon.com are sure to have all of these books in stock.

Below is a list of books from which you are required to choose. Choose ONE book from this list and create your chapter summaries as you read along. *Other books will not be accepted.*

1. Uncle Tungsten (Oliver Sack)
2. Silent Spring (Rachel Carson)
3. Desert Solitaire (Edward Abby)
4. The Dying of the Trees (Charles E. Little)
5. The Seven Daughters of Eve (Bryan Sykes)
6. The Old Man and the Sea (Earnest Hemmingway)
7. Chromosome 6 (Robin Cook)
8. The Hot Zone (Richard Preston)
9. Andromeda Strain (Michal Crichton)
10. A Sand County Almanac (Aldo Leopold)

- Tips:**
1. Don't wait until mid-August to find a book! Sometimes shipping may take weeks.
 2. Write your summaries down after EACH chapter.
 3. **If you own the book**, read with a pencil, underline main ideas or passages (you can always erase pencil!).
 4. Don't wait until the last minute to start reading, take your time and really get into your book.

Book Title: _____

Chapter _____ Summary:

Chapter _____ Summary:

Chapter _____ Summary:

Chapter _____ Summary:

Chapter _____ Summary:

Assignment for Honors Biology Students

As an Honors Biology student at Westfield, you will be responsible for researching and designing an experiment that you will conduct throughout the school year. The purpose of this summer assignment is to prepare you for this independent project. Please do not start the project or experimentation over the summer! You are only doing research to generate possible project ideas.

Your job this summer is to research 5 scientific articles that you will summarize and then create an experimental design based on your reading. Try to find topics in science that you are interested in since you will be researching this throughout the year. Topics should be related to any of the fields of science – ecology, biology, chemistry, genetics, medicine, zoology, botany (plants), just to name a few!

On the 1st day of school, you will submit your **5** printed articles with your summaries and experimental designs for each one attached. Please turn them in together in a folder with your name and period clearly written on the front. Please follow the guidelines below for completing this assignment.

Acceptable articles MUST

- be a minimum of 400 words
- be current (not earlier than 2000)
- come from a reputable source
 - Newspapers (*The NY Times*, *The Washington Post*, etc)
 - Science Magazines or academic journals (*Scientific American*, *Discover*, etc)
- have an author's name(s)
- NOT be from encyclopedias (**including** Wikipedia), "How To" sites, "About.com", "Yahoo Answers", "Wiki Answers" or similar sites. These are **NOT** acceptable sources!

2 OF YOUR ARTICLES MUST COME FROM THE PERIODICAL SCIENTIFIC AMERICAN.

You can access *Scientific American* articles using this link:

<http://search.ebscohost.com/login.aspx?direct=true&db=ulh&jid=SLA&site=ehost-live>

(If you are prompted for a username or password, please check the hard copy of this assignment that was distributed through the middle schools.)

From this site, click on the "Search within this publication" link on the top right. You will come to the screen shown below. You will type in your search topic AFTER the words "JN Scientific American". For example, if you want to search for articles related to enzymes, you would type in the word enzymes as shown below.

The screenshot shows the EBSCOhost search interface. At the top, there is a search bar with the text "JN Scientific American Enzymes". To the left of the search bar is the EBSCO logo. To the right of the search bar are buttons for "Search" and "Clear". Below the search bar are links for "Search Options", "Basic Search", "Advanced Search", "Visual Search", "Search History/Alerts", and "Preferences". Below the search bar is a "Search Options" section with a "Reset" button. The "Search modes" section has radio buttons for "Boolean/Phrase", "Find all my search terms", "Find any of my search terms", and "SmartText Searching". The "Apply related words" section has a checkbox. The "Also search within the full text of the articles" section has a checkbox. The "Limit your results" section has a "Full Text" checkbox, a "Publication" dropdown menu, and a "Number Of Pages" dropdown menu. The "Peer Reviewed" section has a checkbox. The "Published Date from" section has a "Month" dropdown menu, a "Year" input field, and a "to" dropdown menu. The "Lexile Reading Level" section has a dropdown menu with options: "All", "850-1050", "950-1075", and "1000-1100".

*If you do not have access to a home computer, you can access the Westfield Home Page and other resources using the computers at any Fairfax County Public Library.

For each article:

- **print or cutout** the article
- **highlight** the main ideas
- **write a summary** of not less than 200 words (typed is preferred)
- **create an experimental design** based on the information in the article (typed is preferred)

Your experimental design should include the following: (Use the planning sheet below as a guide)

- contain the problem that you wish to test
- contain a simple hypothesis statement
- identify the independent variable (what will you test)
- identify the dependent variable (what will you measure)
- identify constants
- identify the control group
- brief description of how you will test and measure your variable (procedures)

In accordance with the Westfield High School Honor Code, it is expected that you complete this assignment individually. Summaries and Experimental Designs should be written in your own words.

Possible Experiment Planning Sheet

Name of Article: _____

PROBLEM TO BE EXAMINED (what are you trying to find out and why)

HYPOTHESIS _____

METHODS

DEPENDENT VARIABLE _____

INDEPENDENT VARIABLE _____

CONTROLLED VARIABLES (what needs to be constant between the groups, except for your IV)

Describe your CONTROL GROUP _____

PROCEDURES Detail how you will design your experiment, including how you will measure your dependent variable, your independent variable and how you will keep other variable(s) constant.
