

Read a book

- You can choose a book from the [list](#). You may read a maximum of three books each semester. You can earn up to 100 points for the first book and up to 50 points for each additional book for a maximum of 200 extra credit points. Be sure to complete EACH of the following steps to earn full credit:
 - Pick a book from the list and let me know
 - Read the book.
 - Answer the questions on the worksheet (you can find copies for each book title in a folder on my desk) **in your own handwriting**. (Answers can NOT be typed).
 - Complete **the [supplemental reading verification form](#)** and have your parents sign it.

Extra Credit Book List

Level: Easy

Jurassic Park Michael Crichton

Crichton interweaves details of genetic engineering, computer wizardry and current scientific controversy over dinosaurs to fashion a scary, creepy, mesmerizing thriller.

My Sister's Keeper Jodi Picoult

Anna was genetically engineered to be a perfect match for her cancer-ridden older sister.

Nibbling on Einstein's Brain The Good, the Bad & the Bogus in Science Diane Swanson

Inadequate, faulty or phony science can creep into your life in many different ways. Sometimes it's used to declare products "safe" or "unsafe" or to convince you of the benefit of using a particular brand of merchandise.

Ryan White: My Own Story Ryan White

Although Ryan White was born with hemophilia, the boy and his family were determined that he live as normal a life as possible. But, given contaminated blood in a transfusion, Ryan contracted AIDS.

The Andromeda Strain Michael Crichton

A returning space capsule releases an alien virus on the earth.

The Demon in the Freezer Richard Preston

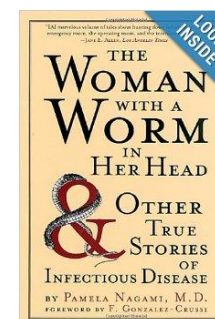
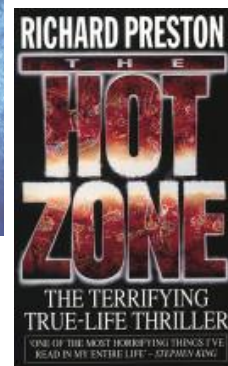
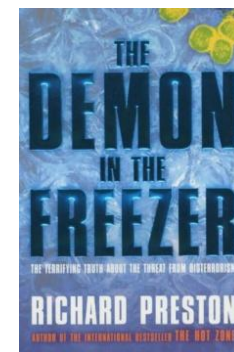
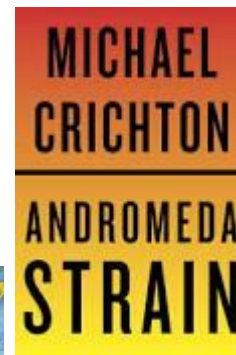
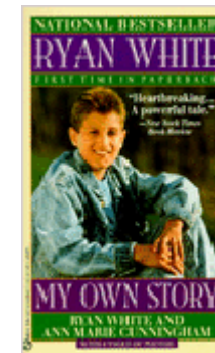
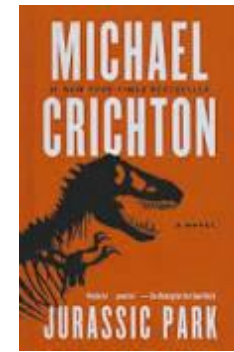
A thriller that focuses on smallpox and the threat it plays as a bioterrorism agent.

The Hot Zone Richard Preston

The tale of an actual Ebola virus outbreak in a suburban Washington, D.C. laboratory.

The Woman With a Worm in Her Head Pamela Nagami

A collection of infectious disease essays, including AIDS, chickenpox and flesh-eating bacteria.

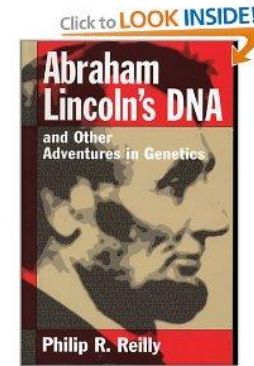


Extra Credit Book List

Level: Medium

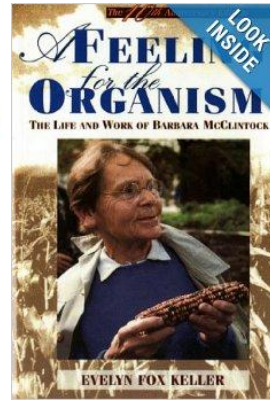
Abraham Lincoln's DNA Philip R. Reilly

An enjoyable series of vignettes that explain the fundamental tools of the modern genetics detective in the course of fascinating historical tales.



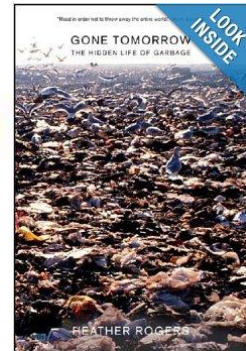
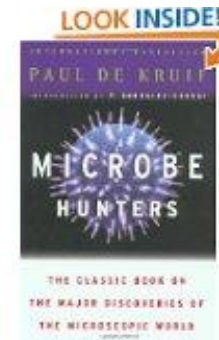
A Feeling for the Organism: The Life and Work of Barbara McClintock Evelyn Fox Keller

An insightful and thought-provoking book about women in science and the role of dissent in the scientific community.



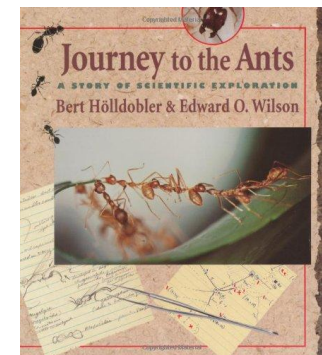
Gone Tomorrow: The Hidden Life of Garbage Heather Rogers

Americans produce the most waste of any people on Earth, but few of us ever think about where all that trash goes. Rogers endeavors to show the inner workings of the waste stream, from the garbage truck to the landfill, incinerator or parts unknown.



Journey to the Ants: A Story of Science Exploration Bert Holldobler and E.O. Wilson

Offer a fascinating glimpse into the world of ants as well as their own personal adventures in the study of these insects.

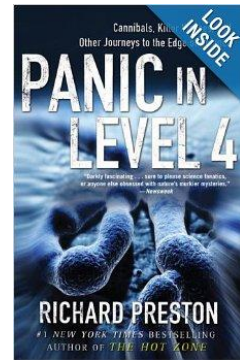
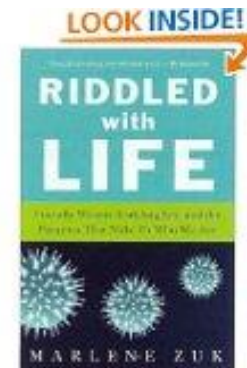


Microbe Hunters Paul de Kruif

In this classic bestseller, Paul de Kruif dramatizes the pioneering bacteriological work of such scientists as Leeuwenhoek, Spallanzani, Koch, Pasteur, Reed, and Ehrlich.

Musicophilia **Oliver Sacks**

Explores the effects of music on the human brain. Clinical studies from individuals afflicted by an inability to connect with any melody to Alzheimer's patients who find order and comfort through music.

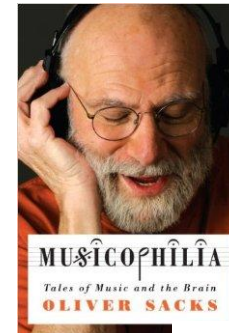


Panic in Level 4 **Richard Preston**

Essays that cover genome mapper Craig Venter; a gene that leads people to cannibalize themselves; and two Russian-Jewish émigré scientists who built a monster computer in their cramped apartment to puzzle out patterns in the value of pi.

Parasite Rex **Carl Zimmer**

From tapeworms to isopods to ichneumon wasps, "parasites are complex, highly adapted creatures that are at the heart of the story of life.

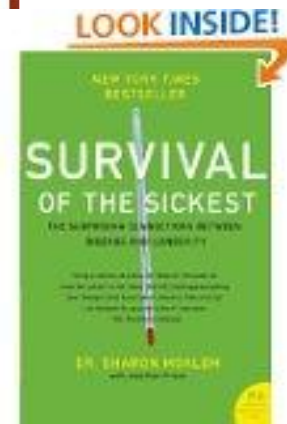


Riddled With Life **Marlene Zuk**

Stories of human parasites and how humans and our parasites have co-evolved

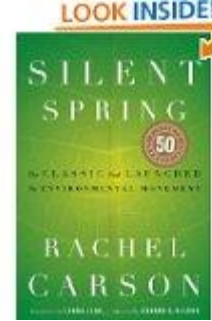
Survival of the Sickest **Sharon Moalem**

Addresses a number of provocative questions, such as why debilitating hereditary diseases persist in humans and why we suffer from the consequences of aging.



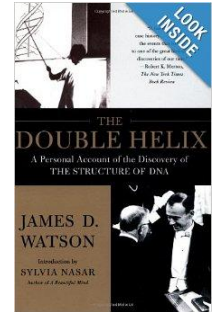
Silent Spring Rachel Carson

The book focuses on the poisons from insecticides, weed killers, and other common products as well as the use of sprays in agriculture, a practice that led to dangerous chemicals to the food source.



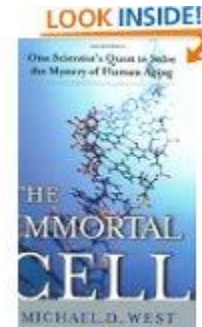
The Double Helix: A Personal Account of the Discovery of the Structure of DNA James Watson

Describes the many minds involved in the ultimate understanding of what DNA looks like and how it multiplies.



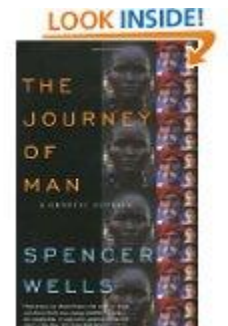
The Immortal Cell Michael D. West

A chronology of the emerging science of immortality and a personal journal of the path from creationist to scientist. It was West who announced that through somatic cell nuclear transfer they could create embryonic stem cells.



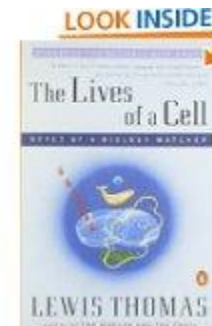
The Journey of Man Spencer Wells

Tracking human relatedness and migration by examining Y-chromosome similarities and differences among current



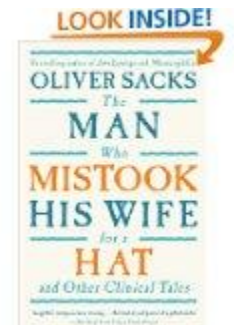
The Lives of a Cell: Notes of a Biology Watcher Lewis Thomas

A beautifully written collection of essays that bring one very close to a belief that in some way, all life is connected.



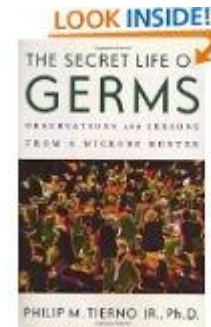
The Man Who Mistook His Wife for a Hat Oliver Sacks

Clinical tales drawn from fascinating and unusual cases introduces real people who suffer from a variety of neurological syndromes which include symptoms such as amnesia, uncontrolled movements, and musical hallucinations.



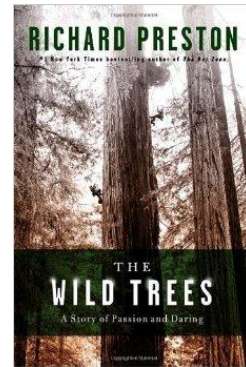
The Secret Life of Germs Phillip Tierno

The story of bacteria, viruses, and prions and their myriad effects on human beings. From toxic shock syndrome to Lyme disease to diarrheal infections of the Third World.



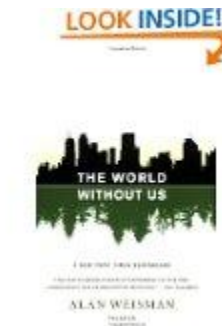
The Wild Trees Richard Preston

Includes the history of old-growth forests, canopy ecology, tells how gadgets and techniques to climb were invented and introduces recreational tree-climbing as a sport.



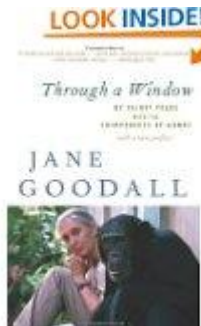
The World Without Us Alan Weisman

If humans were extinct overnight, how long before all trace of humankind vanished?



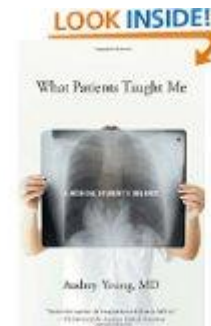
Through a Window: My Thirty Years With the Chimpanzees of Gombe Jane Goodall

A saga of chimpanzee families with an engrossing account of animal behavior.



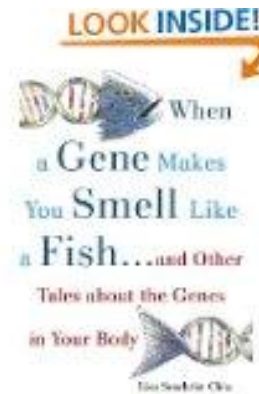
What Patients Taught Me Audrey Young

A firsthand depiction of the hardships and rewards of medical school, this sensitive memoir may serve as a guide to help readers who are considering traversing that same path.



When a Gene Makes You Smell Like a Fish Lisa Seachrist Chiu

A remarkable collection of stories about the discovery and elucidation of some rare or not so rare genetic disorders.

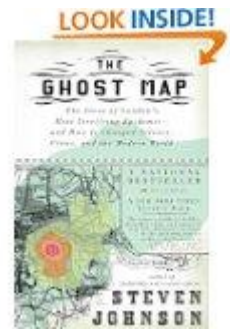
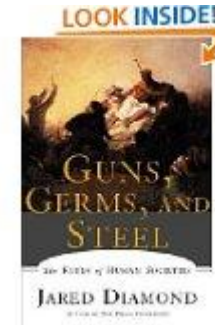


Extra Credit Book List

Level: Hard

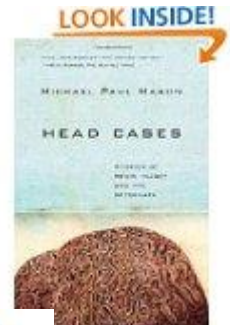
Ghost Map : The Story of London’s Most Terrifying Epidemic –and How It Changed Science, Cities, and the Modern World Steven Johnson

On August 28, 1854, working-class Londoner Sarah Lewis tossed a bucket of soiled water into the cesspool of her squalid apartment building and triggered the deadliest outbreak of cholera in the city's history.



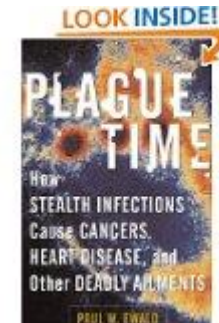
Guns, Germs, Steel : The Fates of Human Societies Jared Diamond

Through the lens of an evolutionary biologist, Diamond reviews human history on every continent since the Ice Age at a rate that emphasizes the movements of peoples and ideas.



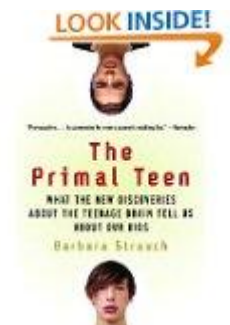
Head Cases : Stories of Brain Injury and Its Aftermath Michael Paul Mason

This book takes us into the dark side of the brain in an astonishing sequence of stories, at once true and strange, from the world of brain injury.



Plague Time Paul Ewald

Ewald argues that cancer, heart disease, and arthritis are not necessarily caused by a breakdown of the human body, but by the action of infectious agents and by the immune response to those agents.



Primal Teen: What the New Discoveries about the Teenage Brain Tell Us about Our Kids Barbara Strauch

The latest research, including brain scans that show changes in the brain's structure and function that could explain the crazy behavior exhibited by teens.

The Origin of Species Charles Darwin

One of the most important and influential books ever written, it is one of the very few groundbreaking works of science that is truly readable.

The Seven Daughters of Eve Bryan Sykes

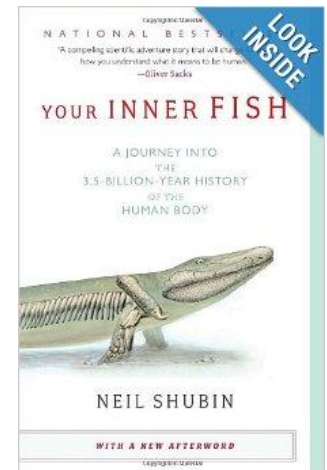
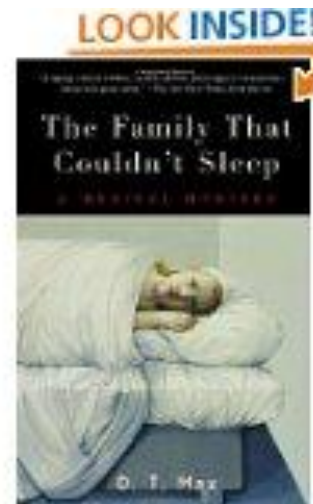
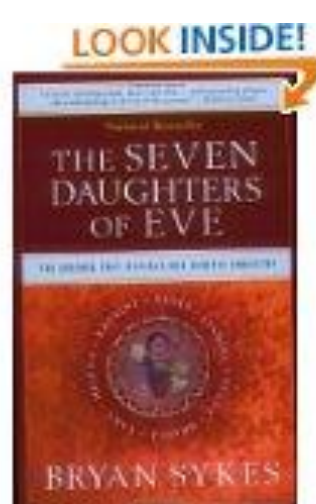
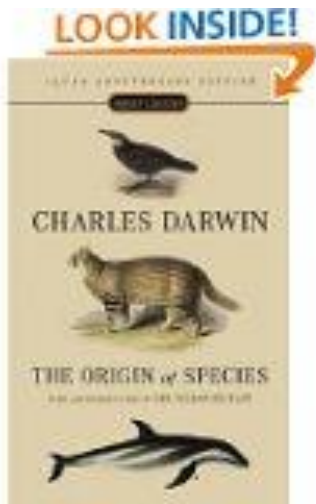
Decoding mitochondrial DNA and using this knowledge to trace the path of human evolution, Sykes relates personal and historical anecdotes, offering familiar ground from which to consider the science.

The Family That Couldn't Sleep T.D. Max

The case of an Italian family whose members succumb to a sleeping disorder that causes not only insomnia but certain death. The cause of this disease is determined to be prions—infectious agents derived from proteins.

Your Inner Fish: A Journey into the 3.5-Billion-Year History of the Human Body Neil Shubin

Why do we look the way we do? What does the human hand have in common with the wing of a fly? Are breasts, sweat glands and scales connected in some way? To better understand the inner workings of our bodies and to trace the origins of many of today's most common diseases, we have to turn to unexpected sources: worms, flies, and even fish.



Research the Life and Studies of a Scientist

Create a high quality poster/presentation or type a two-page report (your name and block in the upper left corner, 12 point font, Times New Roman, references cited), about their contribution to science and humanity. The project must answer the following questions:

- What were the scientist's main fields of study?
- What major contributions to society have the scientist made?
- Any interesting or unique facts about the scientist?
- Any problems that the scientist faced in their research?
- How has other scientists built on their research?

Read 4 Newspaper/Magazine Articles

Type a two-page report (your name and block in the upper left corner, 12 point font, Times New Roman). The project must answer the following questions:

- What is the main field of science studied in the articles?
- Give 3 examples of the use of the scientific method.
- Describe 3 things you already knew before you read the articles.
- Describe 3 things you learned because you read the articles.
- Write 3 questions you have about the fields of science or something you read in the articles.
- Identify and describe ANY false scientific ideas you saw, or “bad” scientific processes found in the articles.
- Document the author, date, and place where you found the articles.
- Hand in a photocopy of each article.

Watch a movie

You can watch one or two movies a term and answer the questions on the worksheet (you can find copies for each movie in a folder on my desk). Each movie is worth 25 points, for the possibility of earning a total of 50 points each term. You can rent the movies from Netflix, stream from HULU or possibly even a local library.

- Medicine Man
- Lorenzo’s Oil
- Outbreak
- Osmosis Jones
- Awakenings
- GATTACA
- X-MEN: The Last Stand
- Super Size Me
- A Beautiful Mind**
- Double Helix
- Evolution
- Gorillas in the Mist

Rationale for Extra Credit

Life happens. I understand that there are many demands placed on students these days - family expectations, academic responsibilities, extracurricular commitments - that might make getting every homework assignment turned in on time tough. I do not accept late work for a number of reasons, the most important being that I want to provide feedback to my students in a timely manner we go over the work each day. Therefore I provide extra credit opportunities each term and all year that enable students to make up for two to three missed homework assignments or recover some points from assignments not fully completed. Also, extra credit shows commitment by the student and I encourage students to “go above and beyond”.

Rules for Extra Credit - Available to Every Student

- Students may complete TWO (2) of the following options per term.
- Students are to work on projects individually. If they want to travel together for the scavenger hunt or watch movies together, that's fine but each student must turn in his/her own scrapbook with pictures of himself/herself and answer the movie questions individually.
- Extra credit points will be awarded in either the homework or lab categories. The only way to earn points in the test/quiz category is by doing a resubmission with corrected answers.
- Projects are due by the end of the term before grades close.
- If you have any questions, come talk to me or email me prior to the night before it is due. I will not help you if you have waited until the last minute to throw together a haphazard project.