

Dover High School
AP Biology
Summer Reading Assignments
2018-19

Welcome to AP Biology! You are about to embark on one of the most interesting journeys that you will ever take. Although many will be challenged by the sheer volume of work, all of you will gain a wealth of knowledge that will lead to success in the future. Your first assignment is to read a nonfiction book related to Biology. It may be a biography of a famous biologist, a book of essays, or a book about any biological topic that interests you. It cannot be science fiction or a textbook, and it must be about biology, not other sciences. If you are not sure that your book is appropriate – just ask, most importantly though, the book must be of interest to you. **Please check with me before selecting a title. (l.taylor@dover.k12.nh.us)**

You may choose a book from the list attached. Most of these books can be found at a public library. Many of them can be found at Amazon.com or in any large, comprehensive bookstores.

On the first day of class, August 29th, I will expect a journal-style article of no fewer than 1000 words TYPED. It may be informal writing, but it must observe the conventions of good grammar and spelling. You will include the following information:

1. The book title and author's name(s);
2. A paragraph telling why you chose this book;
3. A synopsis of what the book is about;
4. A description what you learned from reading it;
5. An explanation of how you think your book is relevant to the study of biology as a whole;
6. A list of questions that the book led you to ponder;
7. An explanation of why the book was worthwhile reading and why you would recommend it to a friend.
8. Be prepared to lead a class discussion relating the material you read to your fellow AP Bio classmates. See the Oral Presentation Rubric for more information.

This assignment will be your “ticket of admission” to AP Biology class on the first day of school and will count as a part of your first quarter grade. I strongly urge you to begin these assignments early and not to wait until the week before school. There are no extensions.

Your second reading assignment will be to read chapters 1-5 in your textbook, Campbell’s Biology 10th Ed. For each of the chapters you are to use the Cornell note-taking guide to outline each chapter. See <http://lsc.cornell.edu/wp-content/uploads/2015/10/Textbook-Reading-Systems.pdf> for more information. I will collect your notes on the first day of class and inform you of the date of the test, expect it to be within the first full week of class.

RECOMMENDED Reading:

Your Inner Fish by Dr. Neil Shubin

Endless Forms Most Beautiful by Sean Carroll

The Omnivores Dilemma: A Natural History of Four Meals by Michael Pollan

Oxygen: The Molecule That Made the World by Nick Lane

Trident K9Warriors, by Mike Ritland and Gary Brozek

The Tale of the Dueling Neurosurgeons by Sam Kean

The Violinist’s Thumb by Sam Kean

Emperor of All Maladies by Siddhartha Mukherjee

Power, Sex, Suicide: Mitochondria and the Meaning of Life by Nick Lane

His Brother’s Keeper: A Story from the Edge of Medicine by Jonathan Weiner

Guns, Germs, and Steel by Jared Diamond

Song of the Dodo by David Quammen

The Agile Gene by Matt Ridley (or anything by this author - he's very good)

Flu: The Story of the Great Influenza Pandemic of 1918 and the Search for the Virus That Caused It by Gina Bari Kolata

The Selfish Gene. Dawkins, Richard. Oxford University Press, New York, 1976.
[noted biologist looks at the relationship between Darwinian evolutionary theories and social behavior in human beings]

Microbe Hunters de Kruif, Paul. . Harcourt, Brace & World, New York, 1953.
[a classic book about the lives and discoveries of 12 scientists who studied bacteria, including Pasteur, Koch and Walter Reed]

Darwin Desmond, Adrian & James Moore. . Warner Books, New York, 1991. [a long but excellent biography of Charles Darwin]

New Guinea Tapeworms and Jewish Grandmothers Desowitz, Robert S. . W.W. Norton, New York, 1981. [subtitled, *Tales of Parasites and People*, the parasitologist author writes essays about the health problems of Third World countries in an informative and interesting manner]

Ants at Work Gordon, Deborah. . The Free Press, New York, 1999. [a fascinating account of how ant societies are organized]

Microcosmos: Four Billion Years of Microbial Evolution. Margulis, Lynn & Dorian Sagan. Simon & Schuster, New York, 1986. [a study of evolution of life on earth with an emphasis on microbes]

Tears of the Cheetah O'Brien, Stephen J.. Thomas Dunne Books, New York, 2003.
[great book that delves into the genetics in exotic animal species and then draws human parallels - such as how mapping the genome of a domestic cat solved the murder of a woman in Canada]

The Immortal Life of Henrietta Lacks Skloot, Rebecca. , Crown Publishers, NY, 2010

The Herring Gull's World. Tinbergen, Niko. Harper & Row, New York, 1960. [a description of the social behavior of herring gulls by the Nobel Prize winner who studied these birds for a lifetime]

DNA The Secret of Life Watson, James D. . Alfred Knopf, New York, 2004.
[charts the entire genetic revolution from the discovery of DNA through mapping the human genome, through what the future holds in terms of genetic engineering]

Survival of the Sickest: The Surprising Connections Between Disease and Longevity by Sharon Moalem

Madness and Memory A study of Prions-A new Biological principle of disease by Stanley Prusiner

The Future of the Mind The scientific quest to understand, enhance and empower the mind by Michio Kaku

The Blue Death: Disease, Disaster, and the Water We Drink by Robert D. Morris

The Beak of the Finch: A Story of Evolution in Our Time by Jonathan Weiner

Why Zebras Don't Get Ulcers by Robert Sapolsky

Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World by Tracy Kidder

A Life Decoded: My Genome: My Life by J. Craig Venter

Stiff: The Curious Lives of Human Cadavers by Mary Roach

The Spark of Life by Frances Ashcroft

The Ghost Map by Steven Hohnson

Polio: An American Story by David Oshinsky

Deadly Dinner Party by Jonathan Edlow

The Hot Zone by Richard Preston

Oral Presentation Rubric : AP BIOLOGY Summer Reading

Teacher Name: **L. Taylor**

Student Name: _____

CATEGORY	4	3	2	1
Content	Shows a full understanding of the topic.	Shows a good understanding of the topic.	Shows a good understanding of parts of the topic.	Does not seem to understand the topic very well.
Preparedness	Student is completely prepared and has obviously rehearsed.	Student seems pretty prepared but might have needed a couple more rehearsals.	The student is somewhat prepared, but it is clear that rehearsal was lacking.	Student does not seem at all prepared to present.
Comprehension	Student is able to accurately answer almost all questions posed by classmates about the topic.	Student is able to accurately answer most questions posed by classmates about the topic.	Student is able to accurately answer a few questions posed by classmates about the topic.	Student is unable to accurately answer questions posed by classmates about the topic.
Enthusiasm	Facial expressions and body language generate a strong interest and enthusiasm about the topic in others.	Facial expressions and body language sometimes generate a strong interest and enthusiasm about the topic in others.	Facial expressions and body language are used to try to generate enthusiasm, but seem somewhat faked.	Very little use of facial expressions or body language. Did not generate much interest in topic being presented.
Time-Limit	Presentation is 5-6 minutes long.	Presentation is 4 minutes long.	Presentation is 3 minutes long.	Presentation is less than 3 minutes OR more than 6 minutes.
Listens to Other Presentations	Listens intently. Does not make distracting noises or movements.	Listens intently but has one distracting noise or movement.	Sometimes does not appear to be listening but is not distracting.	Sometimes does not appear to be listening and has distracting noises or movements