

**Dover High School AP Biology**  
**Summer Reading Assignments**  
2017-18

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 30, 2017, 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 10<sup>th</sup> Ed. For each of the chapters you are to complete the guided reading notes that are due on the first day of class. I will collect the GRN's and inform you of the date of the test, expect it to be within the first 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 K9 Warriors*, 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