## **AP Biology**

#### **Curated Summer Reading List**

Amalia Pimenta, Library-Media Specialist

Cascade High School

## Our Inner Ape by Frans De Waal



Presents the author's research on how human's DNA relationship with their closest biological relatives, primates such as chimpanzees and bonobos, influence and inform a wide range of human behavior.

### The Botany of Desire by Michael Pollan



Traces the history of four domesticated species, the apple, the tulip, marijuana, and the potato, from the plant's point of view and discusses how they have been cultivated to fill human needs and desires.

### World Without Fish by Mark Kurlansky



Describes what is happening to fish, the oceans, and the environment in the early twenty-first century, explaining how commonly-consumed fish, such as tuna, cod, and salmon, are disappearing; and discussing the impact of overfishing on other species and the effects of fishing on the oceans.

### A Planet of Viruses by Carl Zimmer



Explores the hidden world of viruses, explaining how they impact every aspect of life on Earth, describing the latest research into viruses, examining new treatments for deadly viruses, and tracing the evolution of viruses throughout history.

### Dinner at the New Gene Café by Bill Lambrecht



Examines how recent developments in genetic engineering are affecting every aspect of human life, including politics, health, culture, and happiness.

#### NEW GENE CAFÉ

NOW GENETIC ENGINEERING IS CHANGING WHAT WE EAT, NOW WE LIVE, AND THE GLOBAL POLITICS OF FOOD



BILL LAMBRECHT

# Omnivore's Dilemma

by Michael Pollan



Follows the three major food chains that feed humans--industrial, organic, and huntergatherer--from the earth to four meals, exploring the ethical and political effects of one's food choices.

## The Invention of Nature

#### by Andrea Wulf



A portrait of the German naturalist reveals his ongoing influence on humanity's relationship with the natural world today, discussing such topics as his views on climate change, conservation, and nature as a resource for all life. Wonderful Life by Stephen Jay Gould



STEPHEN JAY GOULD

A study of the Burgess Shale, a sea bed 530 million years old, and attempts to tackle what the findings are and what it means.

## How to Build a Dinosaur

#### by Jack Horner

"Scientists can finally begin to answer evolutionary questions that have parallel researchers for dreades" --Smithsenian

## HOW TO BUILD A DINOSAUR

(THE NEW SCIENCE OF REVERSE EVOLUTION)

JACK HORNER AND JAMES GORMAN

(CHICKENDEALINGE)

who advised Steven Spielberg
during his filming of Jurassic
Park, reveals the fascinating
innovations that science has
brought to the study of
dinosaurs. Examining
scientific breakthroughs from
the past 30 years, Horner
predicts that one day
dinosaurs will walk the earth
again.

Jack Horner, the scientist

### The Serengeti Rules by Sean B. Carroll

SERENGETI RULES THE QUEST TO DISCOVER HOW LIFE WORKS AND WHY IT MATTERS SEAN B. CARROLL

Surveys the work of pioneering scientists to demonstrate how their findings about the natural laws of regulation prove relevant to human and environmental health.

### The Song of the Dodo by David Quammen



Stunning,"--- BARRY GOPER/WEISHOR OF ARCTIC DREAMS

Takes a close-up look at island biogeography, the science of the geographic distribution of life on islands, and its significance in terms of evolution and extinction.

## Into the Jungle

#### by Sean B. Carroll



Into the Jungle invites students to step into the lives of naturalists who followed their dreams, and often risked their lives, to explore the unknown. Each of the nine stories in this brief reader chronicles the dramatic adventures of an influential zoologist, geologist, paleontologist, or geneticist on their path to some of the most important discoveries that have shaped our understanding of how life has evolved.

## The Ancestor's Tale

#### by Richard Dawkins

THE NEW YORK TIMES BESTSELLER

"[A] mignen ogus" - PRILADELPHIA INQUIRER

RICHARD A Pilgrimage to the Dawn of Evolution

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A renowned biologist provides a sweeping chronicle of more than four billion years of life on Earth, shedding new light on evolutionary theory and history, sexual selection, speciation, extinction, genetics, and geographical dispersal.

## **The Sixth Extinction**

#### by Elizabeth Kolbert

THE SIXTH **EXTINCTION** of the PULITZER PRIZE AN UNNATURAL HISTORY ELIZABETH KOLB

Explores how human beings have altered life on Earth, discussing a dozen species facing extinction or already extinct.

## Wicked Plants

#### by Amy Stewart



Contains alphabetically arranged entries that provide information on two hundred plants that are deadly, intoxicating, or offensive, and includes illustrations.

## **Horseshoe Crabs and Velvet**

Worms by Richard Fortey



Presents a narrative tour of what living creatures reveal about the history of evolution, demonstrating how various organisms and ecosystems that survive from earlier periods reflect seminal events.

### A Sting in the Tale by Dave Goulson



Dave Goulson discusses his plans and attempts to reintroduce the bumblebee to the United Kingdom as well as presenting his research.

## A Plague of Frogs

#### by William Souder



A group of Minnesota schoolchildren came upon a pond filled with deformed frogs which launched a four-year federal investigation into the possible pollution of local water supplies.

### When a Gene Makes You Smell Like a Fish... by Lisa Seachrist Chiu



Examines common and rare genetic disorders around the world, including the disorder's history and the research conducted by leading scientists to identify the **gene**(s) responsible.

## **The Third Chimpanzee**

#### by Jared Diamond



Reflects on the puzzle of human revolution, on where we came from and where we may be heading.

## The Seven Daughters of Eve

#### by Bryan Sykes



Professor Bryan Sykes gives a firsthand account of his research into a gene which passes undiluted from generation to generation through the maternal line.

### The Link by Colin Tudge



Details the discovery of a forty-seven-million-year-old Darwinius fossil known as Ida, and discusses what scientists have learned from studying it.

# Your Inner Fish

### by Neil Shubin



The author, a paleontologist and professor of anatomy, follows the path of evolution by linking the organs of the human body with the physical attributes of non-human ancestors.

## Gulp by Mary Roach



Examines the alimentary canal and the digestive system, answering such questions as, can constipation kill a person, why the stomach doesn't digest itself, how much can be eaten before the stomach bursts, and more.

# Welcome to Your Brain

#### by Sandra Aamodt

WELCOME TO YOUR BRAND



Why You Lose Your Car Keys but Never Forget How to Drive and Other Puzzles of Everyday Life

> SANDRA AAMODT. Ph.D. and SAM WANG, Ph.D.

Presents a comprehensive overview on how the brain really works that offers tips on such things as how to cope with jet lag, when to worry about a stroke, and how to keep the brain healthy in old age.

### The Sports Gene by David Epstein



The argument of whether some athletes are born with their skills is discussed and analyzed.

### Spillover by David Quammen



**NEW YORK TIMES BESTSELLER** 

Discusses the animal origins of emerging human diseases, looking at recent outbreaks of Ebola, Marburg, AIDS, SARS, avian influenza, and Lyme disease; and considers whether or not these events are linked and how future epidemics can be stopped. The Ghost Map

#### by Steven Johnson



Chronicles the outbreak and spread of Cholera in London during the summer of 1854 and the efforts of Reverend Henry Whitehead and Dr. John Snow who isolated the disease and put an end to the epidemic.

### Your Brain on Food by Gary L. Wenk



Examines how various foods and drugs have direct consequences on how people think, feel, and act as a result of their effect on certain neurotransmitters in the brain.

## Survival of the Sickest

#### by Dr. Sharon Moalem

## SURVIVAL OF THE SICKEST

THE SURPRISING CONNECTIONS BETWEEN DISEASE AND LONGEVITY

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DR. SHARON MOALE

Explores evolutionary history for answers to why certain diseases exist, discussing the effects of environmental factors such as climate, food, and drink on the genes of human ancestors thousands and hundreds of years ago, and examines connections between genetic inheritance and who gets which

inheritance and who gets which diseases.

## The Immortal Life of Henrietta

### Lacks by Rebecca Skloot

NEW YORK TIMES BESTSELLER

THE IMMORTAL LIFE OF HENRIETTA LACKS

Doctors took her cells without asking. Those cells reveal dest. They launched a medical revolution and a main million dollar industry. More than twenty years later, her children found out. *Dest firer weald news be the some*.

REBECCA SKLOOT

Examines the experiences of the children and husband of Henrietta Lacks, who, twenty years after her death from cervical cancer in 1951, learned doctors and researchers took cells from her cervix without consent which were used to create the immortal cell line known as the HeLa cell; provides an overview of Henrietta's life; and explores issues of experimentation on African-Americans and bioethics.

## **Blood Matters**

#### by Masha Gessen



Explores how recent advances in genetic mapping, which are allowing doctors to Identify patients who are at increased risk for life-threatening illnesses, are shaping the decisions people make about their lives.

## The Emperor of All Maladies

#### by Siddhartha Mukherjee



A discussion of the history of the fight to cure, control, and defeat cancer, covering its origins, relevant scientific research, and other related topics.

### The Knife Man by Wendy Moore



BLOOD, BODY SNATCHING, AND THE BIRTH OF MODERN SURGERY

Wendy Moore

Chronicles the life of John Hunter, the most famous anatomist and surgeon of the eighteenth century, focusing on the contributions he made to the fields of science and medicine.

### Wicked Bugs by Amy Stewart



Contains alphabetically arranged entries that provide information and stories of one hundred insects that infest, infect, and make trouble for humans, and includes etchings and drawings of the six- and eight-legged pests.

### Charles Darwin and His World by Julian Huxley and H.B.D. Kettlewell



Non-fiction account of Charles Darwin with plenty of black and white pictures.