

**1<sup>st</sup> Quarter Physics literacy report:** 100 points

Book Choice is due on Friday, October 2<sup>nd</sup>.

Report is due on Friday, October 16<sup>th</sup>

**1. Choose a Physics-Interest Book and read it.**

**(you may want to show it to me before you read it, if it's one of your own choosing)**

(Be sure to stick a post-it note to pages that have things you need clarification on).

**2. Read it, then write me a one-page letter** (typed, double-spaced, 12pt. font please), **and tell me:**

- What made you choose the book
- What is the basic story/time period, and point of the book (in a few sentences)
- How the book is valuable
- How the book has broadened your perspective
- What you learned from the book, scientifically (and from a human interest perspective, if applicable)
- What you thought about the book's intellectual level—too advanced? Not enough?
- Whether you recommend that I read the book, and why/why not.

(+10 EX CR if you donate a book after reading it, used books are just great)

**Books in the OHS Library:**

A Traveler's Guide to Mars by Hartmann

Atom by Lawrence M. Krauss

Back to the Moon by Homer Hickam

Bad Astronomy by Philip Plait

The Birth of Time by John Gribbin

The Case for Mars: The plan to settle the red planet and why we must by Robert Zubrin

The Demon-Haunted World by Carl Sagan

$E=mc^2$ , a biography of the world's most famous equation

The Elegant Universe by Brian Greene

Galileo's Daughter by Dava Sobel

Heisenberg Probably Slept here by Richard P. Brennan

Isaac Asimov's guide to earth and space

Kepler's Witch by James A. Connor

Life Everywhere: the Maverick Science of Astrobiology

The New Gravity by Kenneth G. Salem

Pale Blue Dot: A vision of the human future in space by Carl Sagan

Quest for a theory of everything by Stephen Hawking

Rare Earth: Why complex life is so uncommon in the universe (the library needs a new copy) by Ward and Brownlee

Relativity by Albert Einstein

The Second Creation by Crease and Mann

Six Easy Pieces by Richard P. Feynman

Six Not-so-easy Pieces by Richard P. Feynman

The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory

- **If you don't find something you want to read at our library, feel free to find your own book—just get it preapproved! Or turn-over the page for a list of suggested titles! If you are really stumped, don't just freeze—come ask me to help you choose a book!**
- **To learn more about a book, use the internet to visit Amazon.com or Google Book Search; you can read a synopsis, reviews of the book, and/or a portion of the book to check it out BEFORE you choose it.**
- **if you choose to purchase a book, check the county library's used book sale, the bookworm, or Amazon.com's used books (my favorite—under \$8 usually!)**

**Some suggestions for physics-y books you may find at the butte county library, or buy:**

Rare Earth: Why complex life is so uncommon in the universe by Ward and Brownlee  
Death by Black Hole, and other Cosmic Quandries by Neil deGrasse Tyson  
Beyond Star Trek: From Alien Invasions to the End of Time by Lawrence M. Krauss  
A brief History of Time and The universe in a Nutshell (2007 combination) by Stephen Hawking  
A briefer history of time by Stephen Hawking  
The Physics of Superheroes by James Kakalios  
Hyperspace: A Scientific Odyssey Through Parallel Universes, Time Warps, and the 10th Dimension by Michio Kaku  
Einstein In Berlin by Thomas Levinson  
The Science of Star Wars by Jeanne Cavelus  
Death from the Skies! These are the Ways the World Will Die by Philip Plait  
Insultingly Stupid Movie Physics: Hollywood's Best Mistakes, Goofs and Flat-Out Destructions of the Basic Laws of the Universe by Tom Rogers  
The Life and death of Planet Earth: How the Science of Astrobiology Charts the Fate of Our World by Ward and Brownlee  
Bang! The Complete History of the Universe by Brian May, Patrick Moore, et. Al.  
Physics of the Impossible: A Scientific Exploration into the World of Phasers, Force Fields, Teleportation, and Time  
Physics of Baseball by Robert K. Adair  
The Science of Hitting (baseball) by Ted Williams  
Physics of Basketball by John J. Fontanella  
Physics of Football: Discover the Science of Bone-Crunching Hits, Soaring Field Goals...by Timothy Gay  
Why a Curveball Curves: The Incredible Science of Sports by Frank Vizard  
Travel by Michio Kaku  
The Physics of Star Trek by Lawrence M. Krauss and Stephen Hawking.  
Archimedes to Hawking: Laws of Science and the Great Minds Behind Them by Clifford Pickover  
Parallel Worlds: A Journey Through Creation, Higher Dimensions, and the Future of the Cosmos by Michio Kaku  
Beyond Einstein: The Cosmic Quest for the Theory of the Universe  
by Michio Kaku  
The Flying Circus of Physics by Jearl Walker  
A stubbornly persistent illusion: The essential Scientific Works of Albert Einstein by Stephen Hawking  
The Apollo Adventure (waiting to be catalogued)  
The Hot Zone (waiting to be catalogued)

**More difficult reading:**

If the Universe is Teeming with Aliens...Where is Everybody? Fifty Solutions to Fermi's Paradox and the Problem of Extraterrestrial Life  
The Illustrated On the Shoulders of Giants: The Great Works of Physics and Astronomy by Stephen Hawking  
A stubbornly persistent illusion: The essential Scientific Works of Albert Einstein by Stephen Hawking  
Cosmic Jackpot: Why our Universe is Just right for life  
About Time: Einstein's unfinished Revolution by Paul Davies  
The Matter Myth: Dramatic Discoveries that Challenge our Understanding of Physical Reality  
The Whole Shebang: A State of the Universe Report  
The Last three minutes: Conjectures about the Ultimate fate of the universe  
The Trouble with Physics: The Rise of String Theory, the Fall of a Science, and What Comes Next  
Uncertainty: Einstein, Heisenberg, Bohr, and the Struggle for the Soul of a Science  
Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions  
Three Roads to Quantum Gravity  
How Everything Works: Making Physics out of the ordinary  
Isaac Newton School of Driving  
Fabric of the Cosmos: space, time, and texture of reality  
History of Physics  
God Created the Integers by Stephen Hawking  
Deep Down Things: The Breathtaking Beauty of Particle Physics

**books about these people/their work:**

<b>Sir Issac Newton</b>	Chandraseker	<b>Albert Einstein</b>	Max Planck
<b>Johannes Kepler</b>	Edwin Hubble	<b>Richard Feynman</b>	Ernest Rutherford
<b>Henry Cavendish</b>	Wan Hu	Marie Curie	Blaise Pascal
<b>Archimedes</b>	Robert Boyle	Niels Bohr	
<b>Bernoulli</b>	Edmund Halley	Lise Meitner	
<b>Nicolai Copernicus</b>	Daniel Bernoulli		
<b>Tycho Brahe</b>	Christiaan Huygens	Schrödinger	
<b>Gallileo Galilei</b>	Willebrod Snell	Enrico Fermi	
Rene Descartes	Antoine Lavoisier	James Chadwick	
Michael Faraday	Alessandro Volta	Otto Hahn	
Ludwig Boltzmann	Gustav Kirchhoff	James Joule	
Georg Ohm	John Dalton	<b>Stephen Hawking</b>	
Heinrich Hertz	Amedeo Avogadro	Dmitri Mendeleev	
Ernst Mach	Andre Ampere	Johann Balmer	
Joseph Thomson	Fresnel	Hendrick Lorentz	