MAGAZINE ARTICLES LIST

SCIENCE AND RELATED SUBJECTS

Thought-provoking selections to enhance your understanding and appreciation of science and its impact on your life and the world. Do not attempt outlines on articles not found in this list.

Compiled by Dr. Gary Mechler

For OUTSIDE ACTIVITY (OA) Credit

STRUCTURED (FORMAL) OUTLINES PLEASE.
Summaries accepted, but for less credit.
(See blue course outline or Introductory Notes as examples of structured outlines.)
Approximate maximum point values given in parentheses.

Articles assigned as homework are not eligible for OE Credit

If you don’t find there the article you seek at the Periodicals section of the Pima College Library, contact me. See me for articles in *Skeptical Briefs* and *The Skeptical Inquirer*. Please see me about any online articles that are no longer available.

Viewed online, the following section titles act as bookmarks. Just click on the title that you’d like to check out to jump to that section.

I. **HISTORICAL ASPECTS**

II. **SCIENCE in EDUCATION**

III. **SCIENCE and SOCIETY (including a subsection on global warming)**

IV. **SCIENCE VS. PSEUDOSCIENCE and SUPERSTITION**

V. **ASTROLOGY**

VI. **“SCIENTIFIC” CREATIONISM and INTELLIGENT DESIGN (“ID”)**

VII. **SCIENCE, RELIGION, HUMANISM, & SOCIETY**

VIII. **THE EXPLORATION AND DEVELOPMENT OF SPACE**

HISTORICAL ASPECTS


"Greek Science", Penguin Books 1944, short essay from Greek Science, Benjamin Farrington, (2 pts.)


"Righting Galileo's "Wrong"", Raymo, Sky & Telescope, March 1993, pp. 4,5. (2.5 pts.)

"Triumphs from the ancient world's first think tank", Casson, Smithsonian, May (June?) 1985, pp. 158-168. (7 pts.)

"Native American Astronomy", Aveni, Physics Today, June 1984, pp. 24-32. (8 pts.)

"The Revolt Against the Lightning Rod", Seckel and Edwards, Free Inquiry, Summer 1986, pp. 54, 55. (4 pts.)


"Fall in the House of Ussher", Stephen Jay Gould, Eight Little Piggies, 1993, pp. 181-203. (9 pts.)

"Calendar", David Ewing Duncan, Smithsonian, February 1999, pp. 48-58. (9 pts.)

"Conjunctions that Changed the World", Bradley E. Schaefer, Sky & Telescope, May 2000, pp. 28-34 (9 pts.)


"Flattening the Earth," Jeffrey Burton Russell, Mercury, September-October 2002, pp. 34-37 (5 pts.)


"Reason is the star of 'Agora,'" Spirited Atheist column by Susan Jacoby, The Washington Post, On Faith page, Archived: May 30, 2010 - June 5, 2010. Little known in the U.S., the movie "Agora," an account of Hypatia and her turbulent times, rings true. Click here to link to this rich review of the movie. Note the number of tie-ins with what is presented in the AST 101 course. (7.5 pts.)

"College too late, too little for secular studies in America," Spirited Atheist column by Susan Jacoby, The Washington Post, On Faith page, posted August 31, 2011. See how this resonates with the historical coverage in the AST 101 course of science, religion, politics and the founding of our nation. Click here to view online. (4.5 pts.)

SCIENCE in EDUCATION

"Starry-Eyed and Blissfully Ignorant", Mechler, Los Angeles Times, January 1, 1982, p. 5. (3 pts.)

"Start by Educating Your Kids for the Next Century", Perot, Tucson Citizen, November 30, 1988, p. 15. (3.5 pts.)

"Students Feel, But Apparently They Don't Think", Richard, Arizona Daily Star, May 3, 1988. (2.5 pts.)

"Why Johnny Can't Think", Lear, Omni Magazine, Mind Column, February 1987, p. 30. (3 pts.)

"Not Just for Nerds: How to Teach Science to Our Kids", Newsweek, April 9, 1990, pp. 52-64, including boxes. (7 pts.)

"Why We Need to Understand Science", Sagan, *Parade Magazine*, (0 pts.) NOTE: This was read in an early assignment. It is included here for completeness.

"Science - Who Cares?", C. Sagan, *Parade Magazine*, June 2, 1991, p. 16-21. (4.5 pts.) NOTE: This is the follow-up article to his "Why We Need to Understand Science" article you read for an early assignment.

"Science and The Humanities are Wedded, not Divorced", Weininger, *The Scientist*, January 8, 1990, pp.15,17. (2.5 pts.)


"The Dark Ages of Social Science," Lee McIntyre, *The Humanist*, May-June 2007, pp. 10-12. (6 pts.) Brief overview: The thinking of science I have taught you is extolled in this article and used by the author to serve as an example of the scholarly level the social sciences should be at. Unfortunately, politics and personal attitudes sometimes interfere with social science research.

**SCIENCE and SOCIETY**

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**Global Warming subsection**

"Human Impacts on Climate," American Geophysical Union, December 2003, [http://www.agu.org/sci_soc/policy/climate_change_position.html](http://www.agu.org/sci_soc/policy/climate_change_position.html) Outline this along with the brief position statement by the American Astronomical Society supporting the AGU position statement, [http://members.aas.org/scriptcontent/Custon/Climate.html](http://members.aas.org/scriptcontent/Custon/Climate.html) (Together worth 3.5 pts.) Note: You can link directly from this pdf file to these papers by clicking on their web addresses above. If you print this list out and then type in the URL, remember to type "_" (underscore) where you see blanks in the address.


"Global Warming: Past, Present, and Future Temperatures: the Hockeystick FAQs," On the website of the Union of Concerned Scientists (5½ pts.)

"FAQs on Global Warming," On the website of the Union of Concerned Scientists. (7 pts.)

"Arupt Climate Change," On the website of the Union of Concerned Scientists. (5.5 pts.)

"Global Warning: Bulletins from a Warmer World," An excellent three-part overview article by various authors, *National Geographic*, September 2004, pp. 3-75. (20 pts.) (Note: Tho many pages, there are also many photographs.)

"The Science Debate Behind Climate Change," Michael Coren, [online](http://www.cnn.com) at CNN.com, April 8, 2005. (5 pts.)
“Plan B – How to Stop Global Warming,” by Bryan Walsh, TIME/CNN online, posted January 4, 2008. This is a review of noted environmentalist Lester Brown latest book. Short but clear look at the reality of our situation. Might be unsettling, especially when you get to the last paragraph’s topic. (2½ pts.)

“Mother Earth: Check, please,” Tony Long, “The Luddite” column in Wired magazine online, posted July 6, 2006. Available here or ask for hard copy. Sensible discussion of what a concerned layman is to do in trying to figure how seriously we should take global warming and what we should do about its effects. (4 pts.)

Deserving his own section of criticism is Michael Crichton, famed science fiction writer and author of State of Fear, a misguided and controversial science fiction novel involving evil scientists and crazy environmentalists taking over the world by scaring governments with the fear of global warming.

Crichton’s Thriller State of Fear: Separating Fact from Fiction, online at Union of Concerned Scientists. (6 pts)

and another critique of Crichton’s book:


“Michael Crichton’s State of Confusion,” RealClimate: Climate Science from Climate Scientists, Posted December 14, 2004. This damning article is followed by many responses. Note lament at end regarding Crichton himself. (6 pts.)

Note that this has a number of links. If you follow up on any, include remarks about them as well, increasing the possibility of earning more than the 6 pts. stated.

“Global Warming: Hurricanes and Climate Change,” on the website of the Union of Concerned Scientists. (5 pts.)

“Global Warming Impacts by Region, Full Report from Environmental Defense, Online. (20 pts.)

“Global Warming Impacts by Region, Executive Summary from Environmental Defense, Online. (6 pts.)

“The Big Thaw,” Tim Appenzeller, National Geographic, June 2007, pp. 56-71. (7 pts.)


Two Recent Summary Reviews of Global Warming:


“The Physical Science Behind Climate Change,” William Collins et al, Scientific American, August 2007, pp. 64-73. Why climatologists are so highly confident that human activities are dangerously warming the earth. (12 pts.)

Note that this has a number of links. If you follow up on any, include remarks about them as well, increasing the possibility of earning more than the 6 pts. stated.

“Climate Change Denial in the Classroom,” Christopher Hassall, Chris A. Hebburn, Carley J. Centen, May/June 2013, vol. 37, Issue 3, Skeptical Inquirer, pp. 40-44. Bottom line here: Professors are permitted, and should, express their opinions, BUT they are not protected by academic freedom from making misrepresentations of the relevant science, particularly what that science is well established. Not (yet) available online; see me for hardcopy. (9 pts.)
“Has Global Warming Stopped?” David Morrison, John R. Mashey, Mark Boslough, September/October 2013, vol. 37.4, *Skeptical Inquirer*, pp. 8-11. (Note that the online version mistakenly reads vol. 37.5. Excellent, get up to speed article dealing with a topic deniers have been quick to jump on. Will they be so quick in accepting what scientists have learned about GW during this past decade? Science can at times move fast—too fast even for the writers of this paper. It is important for me to add that soon after this article was written and accepted, scientists learned that the oceans of the world are absorbing energy more effectively than thought. On top of some goings on (human caused) in Indonesia, the picture as to where the energy went last decade has been satisfactorily accounted for. You may link to the article by clicking here. (3.5 pts.)

“The Physical Science behind Climate Change,” William Collins et al, *Scientific American*, August 2007, pp. 64-73. Gist: The highly respected *Scientific American* answers the question, “Why are climatologists so highly confident that human activities are dangerously warming the earth?” (12 pts., including 2 for summaries of future consequences and what needs to be done at the end of the article)

“The debate’s over: Globe is warming; Politicians, corporations and religious groups differ mainly on how to fix the problem,” Dan Vergano, *USA Today*, June 14, 2005, p. A1. (8 pts.)

“Climate-change deniers betray planet,” Paul Krugman, *New York Times*, published online on AzStarnet.com, July 1, 2009. The author is well known for being one of the top columnists of the New York Times. He also holds an academic position at Princeton University. He won the 2008 Nobel prize in Economic Sciences. Pay attention to this man. He raises the age-old problem of trying to delineate where bone-headedness becomes a danger. Short column. (2.5 pts.)


End, Global Warming subsection

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“Don’t Listen to Those Pesky Scientists,” Chris Mooney, Committee for the Scientific Investigation of Claims of the Paranormal, March 8, 2004, [http://www.csicop.org/doubtandabout/marburger/](http://www.csicop.org/doubtandabout/marburger/) (This is a critique of President Bush’s science advisor’s response to the criticisms of many scientists that the Bush administration is distorting scientific evidence and opinions. For a major example of such criticism, read the next paper. We live in strange times.) (8 pts.)

“Letter to members announcing report of investigation into some of the ways the Bush administration has violated the scientific process,” On the [Website](http://www.csicop.org/doubtandabout/marburger/) of the Union of Concerned Scientists, February 19, 2004. (4 pts.)


“ Weird Science”, Jaroff, *Time*, May 15, 1995, (2.5 pts.) (Note: on the low quality of science on television)


“Superstition 55, Science 0”, book review of *How Superstition Won and Science Lost: Popularizing Science and Health in
the United States, author: John Burnham, reviewer: Robert Baker, The Skeptical Inquirer, Summer 1990, pp. 418-421. (3.5 pts.)

“A Psychologist Studies the ‘Shameless’ Talk Shows, and She's Angry”, Emory, Skeptical Inquirer, July/August 1995, pp. 12-14. (3.5 pts.)


“Thoughts on Long-Term Energy Supplies: Scientists and the Silent Lie. The world’s population continues to grow. Shouldn’t physicists care?” Albert Bartlett, Physics Today, July 2004. Note: This is a companion opinion piece to the previous “Basic Choices” article, but is not available online. I have copies of either or both articles for you. (4.5 pts.)

Also by Dr. Bartlett...

“Scientific American and the Silent Lie,” Albert Bartlett, The Physics Teacher, December 2006, Vol. 44, pp. 623-624 or NPG Internet Forum, posted ~January 2007. Overstates his point, but it is a good and important one. Read this and better understand the world. (2.5 pts.)


The next two articles are on political and religious ideological thinking, which can at times be analogs to pseudoscientific thinking—you may outline both for 6 pts.

“We believe whatever we want; facts don’t matter,” Leonard Pitts, Op Ed column, Arizona Daily Star, January 3, 2005. (2.5 pts.)


“World in the Balance,” NOVA. (PBS) This is a 2-parter, 1 hour videos each on DVD. The DVD is on Reserve in the West Campus Library for viewing there. Part 1 is “The People Paradox.” This is on the paradox that while overpopulation is stressing our planet and creating poverty, some countries are experiencing seriously declining populations. These divergent trends are both stressing their societies. Part 2 is “China Revs Up.” This is a great backgrounder on major economic issues affecting us now, that are posed by China's great economic advances and requisite demand on natural resources. Wondering why the price of oil started moving up in 2005? These may be harder to outline than articles, so just write down all significant and interesting points of information and ideas and concerns expressed in these programs. (7 pts. each program.)


“Which alternative treatments work?” Consumer Reports, August 2005, pp. 39-43. (7.5 pts.)


“Full of Holes,” Michael Shermer, Skeptic Column in Scientific American, August 2005, p. 30. (2.5 pts.) Here’s the scientific update on the questions, how well does acupuncture work, how does it work, just how scientific is this ancient practice from China? This is readily available in the WC library, from me, or online by clicking here


“Is America Flunking Science?” TIME Magazine, February 13, 2006, This title comprises 3 articles relating to science and society. 1) “Are We Losing Our Edge?” (Abstract: “The U.S. still leads the world in scientific innovation. But years of declining investment and fresh competition from abroad threaten to end our supremacy.”), (9 pts., including
sidebars) 2) “The Political Science Test,” (Abstract: “Bush said science would guide his decisions, but those in the lab see ideology intruding on their work.”), (3 pts.), 3) “Don’t Believe the Hype. We’re Still No. 1,” essay by Charles Krauthammer, (Abstract: “What the doomsayers don’t say: America is a marvel of creativity.”) (2.5 pts. for essay), (14.5 pts, total)

“Onward Science Soldiers,” Victor J. Stenger, Skeptical Inquirer, July/August 2007, pp. 11,12. (2.5 pts.)

“Later’ is so yesterday for environment’s future,” Thomas Friedman (New York Times columnist), Arizona Daily Star, December 18, 2007. (2.5 pts.) Friedman eloquently instructs when we should act on global warming and on the environment generally.

“We must act now to preserve species,” Thomas Friedman (New York Times columnist), Arizona Daily Star, December 26, 2007. (2.5 pts.)

“Peak Oil. Are We There Yet?” Lindsey Grant, NPG Footnote, November 2007, NPG 111. Get copy from instructor or get it online (4 pts.)

“Peak Coal,” Lindsey Grant, NPG Footnote, December 2007, NPG 112. Get copy from instructor or get it online. (4 pts.)


"Are They (extraterrestrial aliens) Coming for Us?”, Sagan, Parade Magazine, March 7, 1993, pp. 4-7. (4 pts.)


“Whom Am I Speaking To?,” Lewis Jones, Skeptical Briefs, December 2002, p. 10. (2.5 pts.)

“Facing Mars” E.C. Krupp, Sky & Telescope, August 2003, pp. 86-88. (3.5 pts.)


“Ritual Killing and Pseudoscience in Nigeria,” Leo Igwe, Skeptical Briefs, Newsletter of the Committee for the Scientific Investigation of Claims of the Paranormal, June 2004, pp. 1,2. (3 pts.)

“Magical Thinking,” James Alcock, Skeptical Briefs, September 2004, pp. 10, 11. (3.5 pts)


“Full of Holes,” Michael Shermer, Skeptic Column in Scientific American, August 2005, p. 30. (2.5 pts.) Here’s the scientific update on the questions, how well does acupuncture work, how does it work, just how scientific is this ancient practice from China? This is readily available in the WC library, from me, or online by clicking here


“Happy Birthday, Hysterics! The Roswell Incident Turns 60,” Seth Shostak, SPACE.com, posted online July 12, 2007. (2.5 pts.) Gist: The author brings up an astute, but little discussed, scientific perspective on the famous Roswell case and the whole UFO pseudoscience, for that matter: UFOs—So what if they’re real? What has ever come out of them? How has the world been affected? This article is both insightful and amusingly written. Click on the URL to teleport yourself right to it. http://www.space.com/searchforlife/070712_seti_roswell.html


“Secrets and Lies,” Mary Carmichael and Benjamin Radford, Skeptical Inquirer, May/June 2007, pp. 21,22. (3 pts.)


Related closely to the purpose of the questionable book, The Secret, is the notion of luck. Life is 10% what happens to you and 90% your attitude towards what happened, as the saying goes. The following are two good articles on the subject of luck and how to make it.


“Clever Ways to Create Your Own Luck,” Bottom Line Magazine’s Daily Health News (email), March 14, 2007 (1.5 pts.)

“The Earth and Stars in the Lunar Sky,” William C. Keel, Skeptical Inquirer, July/August 2007, pp. 47-50. (3.5 pts.) Gist:
Much has been made by ignorant conspiracy theorists of the fact that the stars did not show up in the photos taken by astronauts on the moon. But the ultraviolet camera could see them.


“Crop Circles: The Art of the Hoax,” Rob Irving and Peter Brookesmith, posted online December 15, 2009 (4.5 pts) See me for copy or Link to here. Why do ideas like this continue? Another pseudoscience raising doubt about the ability of people with untrained minds to process evidence reasonably.

“2012 Apocalypse Fears Unfounded, NASA Says,” Charles Q. Choi, published online on SPACE.com, December 09, 2011, 03:54 p.m., ET. Click here for article. Note links there to other articles. I have other articles, mostly more in depth, see me, if you’d like to take a look at them, but I’m listing this article, because it gets across the proper attitudes and perspectives to this, well, stupid idea.

ASTROLOGY


"Does Astrology Need to be true?" pt 1, Geoffrey Dean, The Skeptical Inquirer, Winter 86/87 pp. 166-184. (11 pts.)


"Response to the National Enquirer Astrology Study", Mechler et al, The Skeptical Inquirer, Winter 80/81, pp. 34-39. (4 pts.) (This is the study used in the Astrology exercise in AST 111.)

"Astrology Strikes Back – But to What Effect?", Dean, The Skeptical Inquirer, Fall 1993, pp.42-49. (5 pts.)

"SCIENTIFIC" CREATIONISM and INTELLIGENT DESIGN (“ID”)

"Creation ‘Science’ is Dishonest", McCollister, The Humanist, July/August 1990, pp. 31,32. (3.5 pts.)

"The Freezing of Noah", The Flamingo’s Smile, Stephan J. Gould, Ch.7, pp. 114-125. (11 pts.) Description: You might be intrigued by this Stephan Jay Gould article, actually chapter, from one of his books. In this, he gives an interesting and enlightening historical look behind the "scientific" creationist premise that the rock strata of the Earth's crust were laid down by Noah's flood (and the igneous and metamorphic layers...?) He takes the reader back to the beginning of geology ~1800 when the early geologists, many, maybe most of whom were Christians. These men naturally wondered that if a flood that covered the entire planet occurred a few thousand years ago, there should literally be a world of evidence out there for it. Using the tools, practices, and insights of the new science of geology, they thought they had the means to check the idea out. In other words, two hundred years ago, what the creationists promote today was a decent scientific hypothesis and one certainly worthy of checking out. What their investigations developed over the subsequent decades resolved the hypothesis once and for all and also resulted in geology's first great discovery. (Gotta read the chapter to learn what it is.) With a moment's reflection, one can see how science almost two centuries ago put this idea in its place--somewhere outside of science, which is what scientists and educators have been trying to tell the public and children about "scientific" creationism for decades.


"Outdated thinking of creationists distorts science", Mechler, Tucson Citizen, November 30, 1989. (3 pts.)


"So How Old is the Earth, Anyway?", Dalrymple, Nat'l. Center for Science Education (NCSE) Reports, vol. 11, no. 4, 1991. p. 16 (2.5 pts.). See also "The Age-of-the-Earth Debate" in the Historical Development section above.

"Can Earth be Dated from Decay of its Magnetic Field?", Dalrymple, *NCSE Reports*, v. 12, no. 1, 1992, pp. 16,17. (3 pts.)

"Creationists should expect responsible criticism", Mechler, Corvallis Oregon Gazette-Times, March 11, 1984. (3 pts.)


"The Creationist Controversy", commentary addendum to chapter "Cosmological Myths" from *Ancient Myths and Modern Life*, LaRue, © 1988, Centerline Press. (9 pts.)


"IDing ID: Is 'Intelligent Design' theory really 'Creation Science' version 2.0?" Chris Mooney, “Doubt and About" column, Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP) Online-Click here, August 9, 2004 (4.5 pts.)


"Darwin’s Foes Can’t Evolve; Trial and Error," Chris Mooney, *The New Republic*, October 17, 2005 (5 pts.)

"A Radiometric Dating Resource List," updated & links checked 23 August 2005. Boring title; awesome site for those who want an effective reality check on radiometric dating. Many links. Online here. (points too variable to be specific. The more you write up the more points you earn.

"The Real Darwin: His Private Views on Science & God” and “Evolution vs. 'Intelligent Design': Round II," *Newsweek*, November 28, 2005, pp. 50-58. (8 pts.)

“First They Came for Darwin, Then They Came for Copernicus and Galileo...” Psychic Vibrations columnist Robert Sheaffer, *Skeptical Inquirer*, July/August 2007, pp. 24,25 (Stop at "In the world of UFO abductions...") (2.5 pts.)

"Rock of Ages, Ages of Rock," Hanna Rosin, New York Times, November 25, 2007 (9 pts.) A look at the small, but growing numbers of creation scientists who actually have some science in their backgrounds. A philosophically precarious group of people. Try this link; I don't know how long it will be good for:

"Expelled Exposed,” Michael Shermer, “Skeptic” columnist, Scientific American, June 2008, p. 42. or online here. (2.5 pts. for Mr. Shermer’s column alone, but more (~6 pts.) if you go to the more substantial URL given in the column
(at the website for the National Center for Science Education) and include that information in your report.) Note: “Expelled is a movie promoting pseudoscientific perspectives on evolution done by a notable (Ben Stein) who should have known better.

Also at the Scientific American Website is the article “Six things in Expelled that Ben Stein doesn’t want you to know.” You may get the article online here. (4 pts.)

“Fighting the Fundamentalists,” Michael Ruse, Skeptical Inquirer, March/April 2007, pp.38-41 (8 pts.) The author, a philosophy professor, examines the interesting problems that arise when religion conflicts with science and how best for intellectuals to respond to people who just don’t want to accept evolution as something real. But he particularly questions the arguments by atheists against the arguments of anti-evolutionists. An enlightening article.

“A Feeble Challenge to Evolution from ‘Reasons to Believe’,” Brian Bolton, Skeptical Inquirer, May/June 2012, pp. 8-11. (6 pts.) An understandable critique of the confusions and distortions of a well-known anti-evolution group. See me for copy or click HERE to link to it.

“Modern Geocentrism: A Case Study of Pseudoscience in Astronomy,” Matthew P. Wiesner, Skeptical Inquirer, Jan/Feb 2015, pp. 50-53. (6 pts.) It is not impossible for people to believe in impossible things. One example of this, a small offshoot from Scientific Creationism, is the medieval (literally, not only metaphorically) belief going back to the classical Greek philosopher/scientists, that the earth is the center of the entire universe. Granted, those in the past knew nothing of the universe, so they can be forgiven. But for someone to believe this in the 21st century is beyond simple not-knowing, calling us to question their very sanity. If interested, check with me for a copy of this to outline.

SCIENCE, RELIGION, HUMANISM, & SOCIETY


"Sakharov: A Humanist Galileo", Kurtz, Free Inquiry, Spring 1990, pp. 46,47. (4 pts.)

"Why Resorting to the Supernatural Isn't Done in Science", K. Fezer, National Center for Science Education Reports, v. 11, no.3, 1991, pp. 16,17. (3 pts.)


"Why the Religious Right is Wrong," Ehrenreich, Time magazine, kVol. 140, No. 10, September 7, 1992. Also available online. Great short-but-sweet essay! I quote from it in the Historical Supplement Notes in my AST 101 course wherein I cover the impacts of the Scientific Revolution. Ideally every American should read and understand the ideas and experience out of which came the Establishment Clause of the First Amendment to the Constitution and Article VI prohibiting religious tests for seekers of public office. (3 pts.)


"Science Confronts the Ultimate Question: Does the Universe Hold Clues to God?" and sidebars, McDonald, The
"The Other Einstein", Ferris, *Science 83*, October 1983, pp. 35-41. (6 pts.)

"Righting Galileo's "Wrong"", Raymo, *Sky & Telescope*, March 1993, pp. 4,5. (2 pts.)


"Religion Can Also Be Humanistic", *The Humanist*, Burgin, Jan/Feb 1994, pp. 27,28. (2.5 pts.)


"When Science and Beliefs Collide", *Science News*, June 8, 1996, Vol. 149, pp. 360, 361. Also read follow-up letters to the editor. (No points if done as homework; otherwise 6 pts.)


"Greek Science", Penguin Books 1944, short essay from *Greek Science*, Benjamin Farrington, (2 pts.)


“Nature’s arbitrary awfulness has no silver lining,” David Brooks, Op Ed column, Arizona Daily Star, January 5, 2005 (2.5 pts.)


“The Real Darwin: His Private Views on Science & God” and “Evolution vs. 'Intelligent Design': Round II,” Newsweek, November 28, 2005, pp. 50-58. (8 pts.)


“To think or blindly follow,” online essay at the 2Think Website, http://www.2think.org/2think.shtml An essay challenging the reader to grow up to the rational adult level. Are you ready to read this? In your synopsis of his essay, show me that you utilized the links as well. They greatly enrich his points. (8 pts.)

“Creation ‘Science’ Is the Christian Right’s Trojan Horse Against Reason,” Chris Hedges, Truthdig, Posted online March 28, 2007. (5 pts.)

“Is Dawkins Deluded? When Scientists Talk about Religion,” “Thinking about Science” columnist Massimo Piguliucci, Skeptical Inquirer, July/August 2007, pp. 20,21. (2.5 pts.)

And don’t forget Islam. There is and has been an interesting relationship between science and this religion as well. The three articles together are enlightening, but you may also choose just one of the first two historical articles along with the third, which deals with their relationship in today’s world. For any credit for the third article, you must also outline one or both of the other two. (20 pts. max.)

*Islamic Astronomy*, Gingerich, Scientific American, April 1986, pp. 78-83. Also available online at http://faculty.kfupm.edu.sa/phys/alshukri/PHYS215/Islamic%20astronomy.htm (9 pts.)


“Science and Islam,” Todd Pitock, Discover, July 2007, pp. 36-45. (10 pts.)

“Science’s Vast Cosmic Perspective Eludes Religion,” Carl Sagan, March/April 2007, pp. 45-47. (5 pts.) When I think about Cosmic Perspective, I have noted in the back of my mind how analogous this science-based concept is to the spiritual-supernatural concept of a supreme creator God, as in the Judeo-Christian-Muslim traditions. This thoughtful piece brings out some differences.

“Local Scene: Former ‘Trek’ assistant values its humanism,” Phil Villarreal, Arizona Daily Star, Caliente section, May 7, 2009. (2.5 pts.)

“Wisdom in a Cleric’s Garb; Why not a Lab Coat Too?,” Dennis Overbye, New York Times, June 2, 2009. For those who saw the movie “Angels and Demons” (or read the book), this short essay has a good point or two regarding science and religion. And for those who haven’t seen or read these, the points are still good. (3.5 pts.)

“Why We Allow the Destruction of Our Planet,” “Up Front” column by David Swanson, The Humanist, July-August 2013, pp. 6-8. (3 pts.) The author mentions several factors that have somewhat held back the acceptance of established environmental problems, especially climate change, most notably global warming. He emphasizes how the most influential resistance comes from people with a Christian fundamentalist ideology, some of whom are elected Federal and State officials.
THE EXPLORATION AND DEVELOPMENT OF SPACE

“How to Make the Space Vision Work (Hint: It’s the Moon!), Jeffery Liss, Online at Space.com, February 15, 2005. (2.5 pts.)

“Private Industry Can Help NASA Open the Space Frontier,” Rick N. Tumlinson, Online at Space.com, posted: March 11, 2005 (4.5 pts.)

“The Significance of the Martian Frontier,” Robert Zubrin, Ad Astra, September/October 1994, pp. 31-37. (10 pts.)

“Who’s afraid of a solar flare? Solar activity can be surprisingly good for astronauts,” Dr. Tony Phillips, Online at Science@NASA, posted on October 7, 2005 (4 pts.)

“Asteroid Mining: Key to the Space Economy,” Mark Sonter, Space.com, essay from Ad Astra, the magazine of NSS, the National Space Society, posted February 9, 2006. Click here for online access. Please send me an email to notify me if the link is no longer active. (5 pts.)

“Space Settlement: The Call of the High Frontier,” Don Davis, posted March 20, 2006 on Space.com. Click here for online access or see me for hard copy. This article returns us to the 1970's notion of building space colonies. Now there may be more economic justification.

“Why Space Exploration is Important to the United States,” Michael Lembeck, Space.com, posted June 15, 2006. (4 pts.) Click here for online access or see me for hard copy.

“The Earth and Stars in the Lunar Sky,” William C. Keel, Skeptical Inquirer, July/August 2007, pp. 47-50. (3.5 pts.) Gist: Much has been made by ignorant conspiracy theorists of the fact that the stars did not show up in the photos taken by astronauts on the moon. But the ultraviolet camera could see them.

“SETI: Is It Worth It?” Seth Shostak, Space.com, posted November 8, 2007 Get it online. (3 pts.)

“Where the Sun Does Shine: Will Space Solar Power ever be Practical?” Linda Shiner, Air & Space, June/July 2008, pp.54-57. (4 pts.) A focal point, as it were, of space, economics, and energy. An idea that has held appeal for me since the late 1970's. Expensive, but...

“The Misunderstood Professor,” Frank H. Winter, Air & Space Magazine, April/May 2008, pp.56-59. (8 pts.) This is about the man who developed the liquid-fueled rocket in the early 1900's and urged as a purpose of rockets to go into space and specifically the moon, along with how the public reacted to that bit of forward-looking views."

“How Space can Improve Life on Earth,” Stan Rosen, Ad Astra, Spring 2009, pp. 28-30. (4 pts.) Subtitle: “Future space applications promise revolutionary improvements in our quality of life.” Also available online here (Notice two things: 1. That the magazine page numbers are off by two from the page number displayed in the Adobe Reader program, and 2. I could not separate out the article from the entire issue of Ad Astra, so it will take awhile to download–have patience. The document will open on the front plage of the issue.

“Once, We Went to the Moon,” John Logsdon, The Planetary Report, March/April 2011, pp. 6-9. (4½ pts.). The author is a noted expert on space matters and adds to what we’ve known about President Kennedy and his epochal call for a mission to the moon. This resulted in the Cold War’s “Space Race,” which America won despite being behind the Soviet Union at the start. But he saw a higher purpose for going to the moon. Sadly his higher purpose was thwarted by his assassination. To read about this important historical matter, see me for a copy of the article to read and outline. It’s possible you’ve heard me offer in class my personal view on this “higher purpose”. Kennedy was/is not the only person who has had this perspective on space.

“Starship Humanity,” Cameron M. Smith, Scientific American, January 2013, pp. 38-43. (7.5 pts.) Factors to consider in creating “generational starships” to enable humans to travel to “nearby” stars. Ad Astra!

“Which Way to Mars?” by Frank Stratford in Sky & Telescope magazine, May 2033, Focal Point column, p. 86. (1 pt.) Short, but does a good job of answering the title’s question.
"Is Interstellar Travel ‘Preposterous’?, Rober Sheaffer, “Psychic Vibrations” column, *Skeptical Inquirer*, May/June 2013, pp. 24-26. (7 pts.) This column presents the heart of physics that tells us why scientists are so skeptical about the common belief that intelligent aliens can travel here from their home world.