Issues Project

# Introduction

Each person will work in a group of about four people (no less than three students, but no more than 5) on a project that addresses an issue related to a topic covered in this class—e.g. genetics, cellular biology, the biology of aging, etc. This project will give you the opportunity to show what you have learned in this class and how it relates to a biological issue. By our definition, "an *issue* is a question on which *informed* people disagree." It can be a *scientific question* or a question arising from the application of scientific advances to societal problems. But it must be controversial. For this assignment, the issue must also have some interesting biology associated with it. When presenting and evaluating the various sides of the issue it is important that there is a biological basis to support each side. Ethics and morals are important, but arguments that only deal with what is moral or ethical are not sufficient. Why? Science can only deal with issue/questions that are definable and measurable. A major and real limitation of science is the inability of science to address questions concerning right or wrong, moral or immoral, ethical or unethical because it is impossible to define and quantify the variables involved. Therefore, do not select an issue that has ethics and morals as the primary focus.

# Examples of Issues

Below is a list of potential topics to choose from for which there are many issues. <u>Please note</u>: **Your instructor must approve the issue your group selects!** 

- 1. **Biological Basis for Human Races:** Is there a biological (genetic) basis for dividing people into races?
- 2. Are Plastic Drink and Food Containers containing BPA (bis-phenol A) safe or should they be avoided and/or banned?
- 3. Genetic Modification of Food Crops: Do the potential benefits outweigh the possible negative environmental consequences? Are GM foods safe to eat? Safe for the environment? Should all GM organisms be banned?
- 4. **The Puzzle of Hypertension in African-Americans:** Why is high blood pressure the leading cause of health problems among black Americans while the people of West Africa have among the lowest rates of hypertension anywhere in the world?
- 5. **Somatic Cell Gene Therapy:** Should somatic cell gene therapy be used to treat genetic diseases? Does it really work?
- 6. Genetic Basis of Aging: How important are genes in determining life in determining human life expectancy? Is it possible to slow the aging process in humans?
- 7. **Alzheimer's disease**: Is a cure for Alzheimer's disease imminent? Why are more women than men affected by it?
- 8. Genetic Basis of Attention-Deficit Hyperactivity Disorder: Is there a genetic basis to the neurological abnormalities involved with ADHD or is there an environmental factor involved?
- 9. Hormone Replacement Therapy: Should postmenopausal women use hormone replacement therapy (HRT) to reduce/prevent osteoporosis? Do the benefits outweigh the potential side effects?

- 10. **Genetic Basis of Alcoholism/Substance abuse**: Is there a genetic basis for alcoholism/substance abuse? Are there genes that predispose a person to alcoholism or substance abuse?
- 11. **Genetic Basis of Depression:** Is there a genetic basis responsible for depression? Does inheriting the 5-HTT gene predispose a person to depression?
- 12. Where did life come from? The origin of life or "prebiotic evolution" is one of the great mysteries of the universe. What does science have to say about the origin of life? What evidence is there for the abiotic evolution of life? What challenges are there for the advocates of the abiotic origin of life?
- 13. **Genetic Testing and Screening:** Should widespread testing for cystic fibrosis (or other genetic diseases) be implemented? Do the benefits outweigh the potential drawbacks?
- 14. **Sports Supplements:** Do dietary additives (e.g. creatine) boost athletic performance and potential? Are they safe to use?
- 15. **Nutritional supplements**: Is it worth the expense to take a particular type of nutritional supplements? (e.g. Vitamin supplements, melatonin, anti-oxidants, etc.)
- 16. **Organic vs. "traditional" foods**: Do the potential benefits of organic foods outweigh the extra costs involved? Are organic foods more nutritious?
- 17. **Genetic Basis of Athletic Performance:** Can anyone become a world class athlete if they train properly? What role(s) do genes of the athlete play?
- 18. **Cigarette Smoking**: What role do genes play in addiction to smoking and kicking the habit?

- 19. **Human Fetal Tissue Research:** Should the federal government allow/fund medical research involving human fetal tissue obtained from aborted fetuses and umbilical cords or are there better alternative sources for stem cells for medical research?
- 20. **Stem Cell Research**: Are human embryos the most promising source of stem cells for biomedical research or are there alternative sources of equal value?
- 21. **Genetic Basis of Homosexuality:** Is there a genetic basis for homosexuality in humans or is homosexuality a matter of choice?
- 22. **Genetic Basis of Obesity:** Is there a genetic basis for obesity? Are there genes that predispose a person to become obese?
- 23. **Safety of Food Additives**: Do food preservatives/additives pose a significant health risk (e.g. cancer, developmental problems, etc.)? Are they being regulated properly?

- 24. Cloning of Animals for Medicine: Production of "Pharm Animals—Hype or a possible reality? Is it possible to genetically modify and then clone farm animals for basic research and to organs for transplantation in humans?
- 25. **The Placebo Effect**: Is the placebo effect real? If so, what is the mechanism behind the placebo effect?
- 26. **Pesticides and Sexual Development:** Does exposure in the womb to pesticides affect normal sexual and behavioral development in human males?
- 27. **Hormone use by the food industry**: Is it a human health hazard to eat food products derived from hormonally treated animals?
- 28. **Genetic Basis of Heart Disease:** Are national differences in rates of heart disease environmentally or genetically caused? What is the role of a dietary cholesterol and fat in heart disease?

# The Issues Project Consists of four Assignments

- 1. Assignment #1: Project References (an individual grade: 25 points)
  - <u>*Each*</u> group member will <u>individually</u> turn in a <u>typed list</u> of at *least 5 references* that are relevant to the issue selected by your team—clearly identify the issue selected by your team at the top of the assignment, stating the issue as a question. Your list of references should include:
    - At least one scientific journal
    - At least two science magazines
  - <u>Use the proper format for citing references (see pages 7-8)</u>. After each reference list the kind of information found in that reference. For example, if you were doing a project on the safety of genetically modified of food crops (e.g. Are GM foods safe for people to eat?), here is how you would cite a reference and how you might list the information found in it.

Phillips, Peter. September 2002. Biotechnology in the Global Agri-food System. *Trends in Biotechnology* 20: 376-381

This reference ...

- o Good source for biological information about genetic modification of plants
- Has many good arguments for and against the use of GM food crops
- o Gives many examples of GM crops and how they have been genetically modified
- Indicates how many states and countries are using GM crops
- Good discussion of the issue at the global level
- Mostly easy for to follow; Not too much scientific jargon, but covers the issues thoroughly
- Gives many good references at the end of the article
- Each of you should share the references you found with all group members.
- <u>Due Date</u>:
- 2. Assignment #2: Progress report (a team grade: 15 points)
  - Each group will submit a 1 to 2 page written summary of their group's progress—please refer to <u>last</u> <u>page</u> of this handout for further details.
  - <u>Due Date</u>:

- 3. Project Abstract and References: 15 points (team grade)
  - The a few days before the presentation each group will submit a final draft of the abstract of the presentation and a list of references. The instructor will make copies for the group to distribute to the class on the day of the presentation.
  - <u>Due Date</u>:
- 4. *Group presentation* (a group grade: 150 points)
  - Each group will make their oral presentation during the last week of the quarter. Late presentations will not be accepted.
  - The fine print..... Please take Note:
    - $\Rightarrow$  Failure to participate in your group's presentation will adversely affect your grade for the group project (50% penalty).
    - $\Rightarrow$  Failure to attend the presentations by other groups will also adversely affect your project grade(25% penalty)

#### Group Presentation......the details

One of the goals of this course is for you to be able to analyze and form an informed opinion about issues related to the biological concepts studied in this class. Issues are questions about which informed people disagree. Issues involve ideas that are controversial and there is no right or wrong answer, but your opinion needs to be supported by evidence and must also have some interesting biology associated with it. When presenting various sides of the issue it is important that there is a biological basis to support the various sides. Ethics are important, but arguments that only deal with what is moral or ethical are not sufficient. The main purpose of this project is for you to demonstrate how the biological concepts studied in this class are related to your issue.

Below is a list of the four components of a good project. It is important that all components are not just present but are presented clearly and persuasively. <u>Remember that the clarity of your presentation is important</u>, as is a demonstration of your thorough understanding of the issue and the biology behind it.

#### 1. Define the Issue

The issue should be clearly and explicitly stated in your introduction and remain as a focus throughout the entire presentation. Part of your job is to convince the audience that this is an important issue and everyone should be concerned about it.

#### 2. Arguments

Present the arguments from the various sides of the issue. Cite the source(s) of your evidence. We aren't looking for your opinion here, just the arguments that you have found in your research. Then focus on a couple of the arguments for which an understanding of biology is particularly important. These arguments should be the basis for the next section: biological background.

#### **3. Biological Background** (this should be the longest part of the presentation)

What are the biological concepts and information (especially include concepts you have learned in this class) that are important for making a decision on this issue? Why are these concepts important? How do they relate to the issue? You may present this information in a section separate from the arguments or combine arguments and biological background in a single section of your presentation. Whenever possible, you should make connections between specific arguments and specific biological concepts. Cite you sources (using proper format!) of the biological concepts and information. The best presentations will be the ones that can make sophisticated connections between the arguments and the biological concepts. This is your opportunity to show us what you have learned in this class and how it relates to your issue.

#### 4. Conclusion

Evaluate the arguments in light of what biologists can tell us. Make it clear how the biologicalinformation supports or refutes the particular arguments.

- Convince the audience that your opinion is correct, even if it falls somewhere between the extreme positions. Tell us why the arguments from the other side of the issue shouldn't convince us. Most issues are not black or white so you may fall somewhere between the extreme positions. If that is the case, then indicate what evidence is most convincing and what evidence is still weakly supported. Indicate what further evidence you would like to see to solidify your position.
- You should support your opinion with evidence from your readings/research. <u>Cite the source(s) of your evidence</u>!!
- What does this problem and solution have to do with me? And/or what is its general significance to the world? This should sum up your presentation and leave the reader thinking: "Wow, that is an important conclusion and I should act on it in some way."

# Instructions for the Oral Presentation of the Group Project

Your group's presentation should be about 15 minutes long—add to this an additional 5 minutes for questions/class discussion. This works out to about 5 min. <u>per person</u> for a three-person group; 3-4 min. <u>per person</u> for four person group, etc. You may incorporate various styles; debate, skit, lecture, etc., or you can stick to one style. **Do not to read a prepared paper or lengthy note cards**. *DO NOT give too much information, but, rather, summarize the important points in a thoughtful manner*. Go slowly, and emphasize main points. <u>Use visual aids to facilitate the audience's understanding of your presentation</u>. You can use PowerPoint, overhead projector transparencies, video clips, etc. I can help you use these, but only if you notify me well in advance of your presentation.

#### For a presentation to be successful, you need to know....

- *What material to present*—after all, a presentation is for conveying information. You need to know the topic *as a whole, as well as the specific aspects of it.* For example, if you were giving a presentation on vaccines against HIV, you need to have a thorough knowledge of the HIV life cycle and the human immune system's response to HIV, as well as a specific knowledge about how vaccines against HIV might work and why they so are controversial.
- *How to organize the material*; organized information is easier to remember for you and easier to understand for others. Notes are fine, but *don't write a paper*—an organized outline or a list is much more useful for a presentation. **IMPORTANT**: Eye contact with the audience is essential—do not read directly from your notes, PowerPoint presentation, etc.—use them only as quick reminders as to what you want to discuss</u>—do not use them as a "crutch," only as an occasional aid.
- *How to present the information*; there are many ways to present material. *The best format is the one that allows you to convey information clearly*. A controversial topic might involve a debate format, and statistics might be presented best graphically, etc. <u>Use visual aids to facilitate the audience's understanding of your presentation</u>. You can use PowerPoint, overhead projector transparencies, video clips, etc. I can help you use these, but only if you notify me well in advance of your presentation.

#### How to get started

• Search existing literature. You need to know what information is available, as well as hot or controversial topics in the fields. To gain a comprehensive view of the field, I recommend starting with a book chapter or a review article from reliable sources. Use the reference sections from those to find more detailed information.

How to access and find articles in *ProQuest*:

- a. Follow these steps to access ProQuest:
  - Go to GRCC's Holman Library Website: <u>http://www.greenriver.edu/library</u> → Under "Articles" select "<u>Databases by Name</u>" → select "<u>ProQuest Combined Databases</u>" and enter your student ID number to enter the ProQuest Combined Database.
- b. If you want to restrict your search to peer reviewed articles (i.e. articles in scientific journals) check the box next to "Scholarly journals, including peer-reviewed."
- c. To restrict your search to full text documents check the box next to "Full text documents only."
- d. Type your search criteria in the search box and click the "Search" button. It's a good idea to review the "Search Tips" to get the articles most relevant to your issue.
- e. A list of articles should appear that you can click on to view. Often the entire article can be saved to disk as an *Adobe Acrobat .pdf* file. Sometimes there is the option to have the article e-mailed to you.
- f. If you access a magazine or journal using *ProQuest*, be sure to cite your source accordingly by following the citation format for <u>magazines and journals on page 7</u>! If you access a newspaper article using *ProQuest*, cite the reference using the citation format for <u>newspaper articles on page 8</u>!
- **Come talk to me in person**. You can get a lot of *feedback* from me at any point during the preparation. Added benefit is that you can figure out my preliminary evaluation of your presentation, so that you will know how much and what kind of work you have to do quality work.
- **Organize you work**. You are working with others. *Clearly organizing and designating responsibility for each is extremely important*. I recommend getting together regularly (e.g. 1 to 2 times each week for at least 30 min. each), so that you can give each other update on how things are going.

#### Working in groups—a must read!!

Working cooperatively in groups is a necessary skill throughout one's career, no matter what the discipline. Except for an intractable situation in which one or more of the group members is not pulling their weight, you will need to work out any personality conflicts and "group dynamics" issues among yourselves (my specialty is ecology, not group therapy). But if something is going awry, it is much better to let me know and deal with it early in the process. Remember, an important aspect of group dynamics is effective communication. That said, here is a simple recipe for a successful group meeting:

- 1. Before each meeting, agree upon clear roles for each group member. Have a ...
  - <u>leader</u> that's responsible for making sure all necessary questions get addressed and for keeping the meeting moving along.
  - **<u>recorder</u>** that's responsible for taking notes on the discussion, agendas, necessary tasks and duties, etc.

- gatekeeper that's responsible for making sure everyone participates in the discussion.

Rotate tasks at different meetings. Everyone should have a chance at each role.

- 2. At the outset, clarify the purpose of your meeting.
- 3. Share the information each member has gathered since the last meeting.
- 4. Specifically identify the tasks to be accomplished by the next meeting.
- 5. Agree upon who will be responsible for both separate and shared tasks. Agree upon roles for the next meeting.

Excellent Science and Biology Web Sites—Compiled by Ken Marr, GRCC Biology Dept.

- http://www.scirus.com (The most comprehensive scientific research tool on the web. Allows researchers to search for not only journal content but also scientists' homepages, courseware, pre-print server material, patents and institutional repository and website information.)
- 2. http://www.google.com (One of the best search engines around!)
- 3. http://www.sciam.com/ (Scientific American magazine: An extremely high quality science magazine containing articles written by experts in their field of study—One of my favorites)
- 4. http://www.newscientist.com (A high quality science magazine with a biological sciences focus—Another one of my favorites!)
- 5. http://www.sciencenews.org/ (A high quality science magazine with a biological sciences focus)
- 6. http://www.nejm.org/content/index.asp (New England Journal of Medicine—one of the world's premier medical journals)
- 7. http://www.ncbi.nlm.nih.gov/Omim/ (Online Mendelian Inheritance in Man: OMIN is a database that contains summaries about every human gene so far investigated. You can obtain the official gene name, the official abbreviation, the gene map locus (where the gene is located on a certain chromosome), and information about the gene. Moreover, you can click on buttons that will give you articles in *Medline* (a database for medically related journals), a list of genes near the one you are interested in (a gene map), DNA sequences (DNA), and other information. Another useful site is *Genbank* at http://www.ncbi.nlm.nih.gov/
- 8. http://www.nlm.nih.gov/ (Medline: A database of the National Library of Medicine, part of the National Institutes of Health (NIH). This the largest collection of medical information in the world, containing more than 9 million references from medical journals from all over the world.
- 9. http://cancer.med.upenn.edu/ (Oncolink: the first of its kind on the Internet—an excellent site that disseminates cutting edge information relevant to the field of oncology (cancer research). Aims to educate health care personnel, patients, and other interested parties.)
- 10. http://www.quackwatch.com/ ("A Guide to Health Fraud, Quackery, and Intelligent Decisions;" An interesting site that helps one to distinguish between legitimate healthcare treatments and quackery—The physician responsible for this site has written many books and scientific papers over the years. His ideas are very mainstream—perhaps too mainstream? Some of the views expressed may not be totally objective. At times he has quite harsh comments concerning "alternative medicine.")
- 11. http://www.audubon.org/ (Audubon is a high quality magazine that deals with environmental issues and wildlife conservation)
- 12. http://genetics.nature.com/ (a journal produced by Nature...Gives you access to the contents, but you must pay to see the text of the articles—Available for free in the libraries of most research universities)
- 13. http://www.nature.com/ (Nature is a very prestigious scientific journal. This site gives you access to the contents. Although some parts of the site are free, you must pay to see the text of the articles—but they are available for free in the libraries of most research universities)
- 14. http://flybase.bio.indiana.edu/ (FlyBase: a comprehensive searchable database for information on the genetics and molecular biology of Drosophila—the fruit fly)
- 15. http://www.exploratorium.edu/exhibits/mutant\_flies/mutant\_flies.html (Has pictures and descriptions of mutant fruit flies)
- 16. <u>Library of Congress</u> http://www.loc.gov/index.html A U.S. federal resource of the Congress providing research material and updated database on virtually every topic imaginable!
- 17. <u>LibWeb</u>: http://lists.webjunction.org/libweb LibWeb is updated daily and currently lists over 8000 pages from libraries in 146 countries.

# How to Cite References

The format for citing references varies slightly from one scientific publication to another. Every scientific publication provides an "Instructions to Authors" that describes the format for the References section and all other requirements for papers they will accept. When citing references in this class, either for your poster or for your paper, use the following formats to be sure that your citations are complete.

## **Citing Journal and Magazine Articles**

• Format

Author(s). Publication year. Article title. Journal title volume: pages.

• Examples

Smith, D.C. and J. Van Buskirk. 1995. Phenotypic design, plasticity and ecological performance in two tadpole species. *American Naturalist* 145: 211-233.

Ahlberg, P.E. 1990. Glimpsing the hidden majority. Nature 344: 23.

Epel, D. and R. Steinhardt. 1974. Activation of sea-urchin eggs by a calcium ionophore. *Proc. Natl. Acad. Sci.* (USA) 71: 1915-1919.

#### **Citing Sites on the Internet**

Often electronic sources are a challenge to cite because they often lack critical information. You should do your best to provide as much of the following as possible. The complete web address should be presented so that *anyone* else could easily visit the same website.

Attempt to include the following elements (not all elements appear on all Web pages):

- 1. author(s) (last name, first initial)
- 2. date created or updated
- 3. title of the page
- 4. title of the complete web site (if different from the page)
- 5. URL (full web address)
- 6. the date accessed.

#### • Format

Author's last name, First initial. (date created or updated). *Title of the page*. Title of the complete site. [Online]. Available: http://full.web.address. [Date accessed].

#### • Example

Hammett, P. (1997). *Evaluating web resources*. Ruben Salazar Library, Sonoma State University. [Online]. Available: http://libweb.sonoma.edu/Resources/eval.html. [March 29, 1997].

#### Citing Books

• Format

Author(s). Publication year. *Book Title*, edition if known. Publisher, Place of publication, number of pages.

• Example

Purves, W.K., G.H. Orians and H.C. Heller. 1995. Life: *The Science of Biology*, 4th edition. Sinauer Associates, Inc., Sunderland, MA, 1195 pp.

# **Citing Book Chapters**

• Format

Author(s). Publication year. Chapter title. In: *Book title* (Author(s)/editors, first name first) Place of publication, pages.

• Example

Jones, C.G. and J.S. Coleman. 1991. Plant stress and insect herbivory: Toward an integrated perspective. In: *Responses of Plants to Multiple Stresses* (H.A. Mooney, W.E. Winner & E.J. Pell, editors), Academic Press, San Diego, pp. 249-280.

## **Citing Newspaper Articles**

• Format

Author(s). Date (Year/Month/Day). Article title. Newspaper title Section: Page: Column.

• Example

Bishop, J. E. 1982 November 4. Do flies spread ills or is that claim merely a bugaboo? *The Wall Street Journal* 1: 1: 4.

Williams, M. 1997 January 5. Teaching the net. Seattle Times C: 1: 2.

### **Citing Newspaper Articles with no Identifiable Author**

• Format

Anonymous. Date (Year/Month/Day). Article title. Newspaper title Section: page: column.

• Example

Anonymous. 1977 September 6. Puffin, a rare seabird, returns to where many were killed. *The New York Times* 3:28:1.

#### **Citing a Video**

#### • Format

*Title of video* (videocassette). editor or director. Producer's name, producer. [Location of Production]: Organization responsible for production, Year.

• Example

*New horizons in esthetic dentistry* (videocassette). Wood, R. M., editor. Visualeyes Productions, producer. [Chicago] : Chicago Dental Society, 1989.

#### **Citing a Government report**

• Format

Author/Agency (if no author). Publication year. Title. Publisher, Place of publication, number of pages.

• Example

Mitchell, R.G., N.E. Johnson and K.H. Wright. 1974. Susceptibility of 10 spruce species and hybrids to the white pine weevil (= Sitka spruce weevil) in the Pacific Northwest. PNW-225. U.S. Department of Agriculture Forest Service, Washington, D.C., 8 pp.

# Issues Project Group Presentation Evaluation Rubric

Issue: \_\_\_\_\_

Names of Presenters:

Category	Scoring Criteria	Points	Evaluation
T 4 J 4 <sup>2</sup>	The issue is clearly defined in the introduction	6	
20 points	Convinces the audience that the issue is important and the audience should be concerned about it	7	
	Introduction is attention-getting and establishes the speaker's credibility.	7	
Arguments 35 points	Presents the arguments from <u>all</u> sides of the issue.	10	
	Cites arguments for which an understanding of biology is important.	5	
	Presents the arguments clearly and <i>objectively</i>	5	
	The arguments are scientifically accurate	5	
	Demonstrates thorough understanding of the arguments behind the issue	5	
	Uses in-text citations to cite the source(s) of the evidence/arguments	5	
	Gives an in-depth discussion of the biological concepts that are needed to understand the issue	10	
Biological Baskground	Makes connections between the arguments and specific biological concepts	10	
Dackground	Biological background is the longest part of the presentation	5	
35 points	Demonstrates thorough understanding of the biology behind the issue	5	
	Uses in-text citations to cite the source(s) of the biological concepts	5	
	Uses specific biological information to support or refute the arguments presented	10	
Conclusion	<u>Objectively</u> evaluates the arguments.	5	
25 points	Convinces the audience that their position is correct, even if it falls somewhere between the extreme positions	5	
	There is an obvious conclusion summarizing the presentation.	5	
	Information is presented at an appropriate level for the topic and audience and in a logical sequence that is easy to follow	5	
	Uses good language skills and pronunciation; Scientific terms are used appropriately.	5	
Presentation	Speakers maintain good eye contact with the audience and use a clear voice that is easily heard at the back of the room.	5	
35 noints	Information included in the presentation is consistently accurate	5	
55 points	Communication aids enhance the presentation: appear professional, text/graphics easily read, main points stand out	5	
	Equal and knowledgeable participation by all group members; Answers all class questions with explanations and elaboration.	5	
	Length of the presentation is within the assigned time requirement.	5	
Comments	Total Points	150	







Studies reveal that at the first hint of OSH paperwork, 82.3% of scientists are able to voluntarily jettison their short-term memories.



Over two million years ago, nude male hominids spontaneously developed the classic *right-leg-forward* stance in response to a major influx of college textbook artists.

# *Progress Report - 15 points* (Turn in one per group!)

**Issue researched** (state as a question!):

Group Members (indicate first & last names)	<b>Responsibilities</b> (Be very specific—see pages 3 – 5 for details about the project!)

Abstract (This will be the 1<sup>st</sup> draft of the abstract—a final draft of your group's abstract is due a few days before the group presentation)
<u>Attach to this page</u> a typed copy of your group's abstract. In short, an abstract should state clearly what your
presentation is about. An abstract is a brief, all-encompassing summary and should include the following: the
issue, why the issue is important, a brief listing of the arguments involved, and the main conclusions made. Use
<u>in-text citations</u> (see below) to cite the source(s) of all information that is not original. The abstract should be
written as one single-spaced paragraph, no more than 200 words in length.

#### **In-Text Citations**

Citation formats are often discipline specific. Footnotes or endnotes are *not normally* used in scientific writing as they are in humanities and the social sciences. We will use the Name-Year System this system since it is the one most widely used in the biological sciences. This is how it works: All citations occur in the text in parentheses, with the author(s) and date of publication. For example: Einstein (1924) found that men with curly hair and a mustache are four more likely to be attractive to women than men that only have a mustache. Alternatively: Men with curly hair and a mustache are four more likely to be attractive to women than one author of a source, simply use the first author's last name, followed by et al., Latin for "and others". For example: (Einstein et al. 1924). The complete list of authors will appear in the full citation at the end of a scientific paper.

# 2. References

<u>Attach to this page</u> a typed list of *quality* references (minimum: 8-10) that <u>you have actually used</u> or plan to use in preparing you presentation. Place the references in alphabetical order by author's last name. Use proper format when citing your references—see pages 7-8 of this handout.

# 3. Unfinished Business

<u>Attach to this page</u> a typed list of the major things your group still needs to complete and the name(s) of each person responsible for completing each task.