Bioethics Research Project:

Bioethics is the study of the moral and ethical questions that relate to biology and medicine. For example, “When does a human life begin?” “Who, if anybody, should have the power to end a human life?” “Should an individual be able to patent genes?” Your assignment is to research one area of bioethics and create a presentation (Google Slides, Prezi, etc.).

Your presentation must include all information from the decision-making framework packet. Refer to the rubric for more information.

Additional Requirements

A title page with the research topic, your name, and date of presentation (Wednesday October 4)

Your presentation must last 5-7 minutes.

Keep quotations to a minimum. More is not necessarily better. Although your presentation should contain some appropriately placed quotes, it should not consist entirely of someone else’s ideas or opinions.

Use a minimum of four research sources.

- None may be from a general encyclopedia, or Wikipedia.org.
- One must be from a printed source.
- One from a journal (can find using library databases).
- The others may be from any of the above, or an appropriate internet site. You may have more than 4 references. Be careful about the sources you choose to use, some of them are not carefully edited or contain false information.

Include a “Works Cited” (reference) slide with references documented according to the APA format. Use the Owl and Purdue website for help creating your works cited page.

Due Dates
Tuesday September 26: Choose a topic and begin decision-making packet.
Thursday September 28: Library visit (A and B lunch) - Conduct research and complete packet
Monday October 2: Work on presentation
Wednesday October 4: Final presentations

Adapted from www.mariemontschools.org
<table>
<thead>
<tr>
<th></th>
<th>Exceptional (10-7)</th>
<th>Approaching Understanding (6-4)</th>
<th>Lacks Understanding (3-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethical Question</strong></td>
<td>The ethical question is clearly stated and is written in correct format (should or ought).</td>
<td>The ethical question is clearly stated, but is not written in correct format (should or ought).</td>
<td>The ethical question is missing</td>
</tr>
<tr>
<td><strong>Relevant and Unknown Facts</strong></td>
<td>Many relevant facts are given including essential biological, ethical, economic, social, and/or political considerations. Student analyzes several additional facts/information that would be useful in determining an appropriate outcome.</td>
<td>Some relevant facts are given including essential biological, ethical, economic, social, and/or political considerations. Student analyzes few additional facts/information that would be useful in determining an appropriate outcome.</td>
<td>Limited relevant facts are given. Student failed to analyzes additional facts/information that would be useful in determining an appropriate outcome.</td>
</tr>
<tr>
<td><strong>Stakeholders and Concerns/Values</strong></td>
<td>Student analyzed a minimum of 3 stakeholders providing the concerns and values associated with each. Stakeholders are appropriate and relevant to the topic.</td>
<td>Student analyzed 1-2 stakeholders providing the concerns and values associated with each. Stakeholders are appropriate and relevant to the topic.</td>
<td>Student failed to analyze stakeholders or stakeholders were not appropriate/relevant to the topic.</td>
</tr>
<tr>
<td><strong>Alternatives</strong></td>
<td>Student provided three possible alternatives to the ethical issue and provided detailed scientific background including pros and cons for each.</td>
<td>Student provided two possible alternatives to the ethical issue, but provided little scientific background including pros and cons for each.</td>
<td>Student provided one possible alternative to the ethical issue and provided little scientific background or pros and cons for each.</td>
</tr>
</tbody>
</table>

Adapted from www.mariemontschools.org
<table>
<thead>
<tr>
<th><strong>Your Decision</strong></th>
<th><strong>Multimedia</strong></th>
<th><strong>Spelling/grammar</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student’s decision was clear and justified. Student weighed each option and provided a reason for each (rules/duties, virtues, outcomes, etc.).</td>
<td>Student’s decision was somewhat clear and justified. Student failed to weigh each option and provide a reason for each (rules/duties, virtues, outcomes, etc.).</td>
<td>Student’s decision was unclear and/or was not justified.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>List of References</strong></th>
<th><strong>APA format</strong></th>
<th><strong>Spelling/grammar</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student included a list of references slide shown in APA format. Student used a minimum of four references including one print and one journal. All references were appropriate and relevant (no Wikipedia, etc.).</td>
<td>Student included a list of references slide shown in APA format. Student used fewer than 4 references. Most references were appropriate and relevant (no Wikipedia, etc.).</td>
<td>Student was missing a list of references.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation (Grammar/Spelling)</strong></th>
<th><strong>Spelling/grammar</strong></th>
<th><strong>Spelling/grammar</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>There are no errors in spelling/grammar.</td>
<td>There are fewer than 3 errors in spelling/grammar.</td>
<td>There are more than 3 errors in spelling/grammar.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation (Multimedia)</strong></th>
<th><strong>Multimedia</strong></th>
<th><strong>Multimedia</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student used several forms of multimedia, such as video, images, graphs, or audio. Multimedia was relevant and appropriate to the topic and enhanced the presentation.</td>
<td>Student used one form of multimedia, such as video, images, graphs, or audio. Multimedia was somewhat relevant and appropriate to the topic and enhanced the presentation.</td>
<td>Student did not use multimedia in their presentation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation (Layout)</strong></th>
<th><strong>Multimedia</strong></th>
<th><strong>Multimedia</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Student’s presentation was easy to follow. Student followed the 5 x 5 rule (5 bullets per slide, 5 words per bullet). Words were easy to view and no multimedia covered the text.</td>
<td>Student’s presentation was somewhat easy to follow. Student followed the 5 x 5 rule (5 bullets per slide, 5 words per bullet) on most slides. Most words were easy to view and no multimedia covered the text.</td>
<td>Student’s presentation was difficult to follow. Slides contained too much text and/or multimedia covered much of the text.</td>
</tr>
<tr>
<td>Presentation (Oral)</td>
<td>Student spoke loudly and clearly and was dressed appropriately for the presentation (no jeans/t-shirt). Student used note cards or memorized their presentation.</td>
<td>Student spoke loudly and clearly, however was not dressed appropriately for the presentation. Student often read off the slides.</td>
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</table>

TOTAL: ________/100

Adapted from www.mariemontschools.org
Before picking a topic ask yourself the following:

What are the issues behind this topic?
Why do we have the problem?
What is the technology/science?
How does it work?
What are some approaches to understanding/solving the problem?
Is it safe/tested?

Then:
What are the ethical questions that arise from these issues?
Should we use it/should it be done? How? Why?
What happens if we do/don’t?

After picking a topic:

Develop an understanding of the topic,
Form a question,
Decide what the future of the technology should be or be used for.

Possible Topics
1. Stem cells used in research
2. Responsibility and response to emerging diseases such as HIV, hemorrhagic fever, Ebola, avian flu, others.
3. Genetically modified bacteria--threat/promise
4. US response to non-endemic diseases (ex. malaria, polio, yellow fever,)
5. Shortage of organs for organ replacement
6. Patents on genes and gene products
7. Use of knowledge of a person’s genome (health care, jobs, etc)
8. Xenotransplantation
9. Needs of endangered animals vs. the needs of people
10. Cloning of extinct animals
11. Selection of a child’s genetic characteristics
12. Stem cell therapy to treat genetic diseases
13. Cloning technologies for infertile couples
14. Growth enhancements (as in growth hormones) for meat animals
15. Safety of new biotech (need to narrow down topic to a few specifics)
16. Environmental risks of biotechnology in agriculture
17. Biopharmaceuticals testing of animals
18. Experimental gene therapy use in humans
19. Frozen embryo ownership
20. Use of information from the Human Genome Research Project
21. Transgenics and evolution
22. Use of cells/tissues removed during surgical processes or after death
23. Use of biological agents in bio-terrorism
24. Irradiation of our food supply
25. Use of bioengineered (transgenic) crops to feed humans (safety)
26. Genetically altered fish as a protein source
27. Fish farming and its effect on the environment

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29. DNA vaccines to control disease
30. Using anti-bacterials routinely for control of bacteria
31. Use of biotechnology to extend age in humans
32. Technology of maintaining life
33. Owner of scientific knowledge?
34. Responsibilities of scientists to the public
36. Global warming-and our response is?
38. Overfishing of oceanic resources- (Rise of the Slime)
39. Alternate fuel sources-biofuels
40. Alternate fuel sources-non-biological
41. “Green” transportation
42. Building "green"
43. Water: What is clean water? How much potable water do we have? What are the issues?
44. Public Health: Should it be mandatory to report infectious diseases?
45. Public Health: Should vaccines be mandatory? MMR, HPV, Flu, etc.
46. Public Health: Health Care reform (focus on the biology/ science and not the politics of this issue)
47. Euthanasia

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