LESSON 4:
Exploring Ethical Viewpoints

INTRODUCTION
In this lesson, students are introduced to duties-based and outcomes-based ethical theories through a series of actual quotes from people who hold different views on animal research. Students then role-play the stakeholder positions. First, students identify their stakeholder’s stance as coming from a primarily duties-based or outcomes-based ethical perspective, when possible, and then students align themselves around the room based on their stakeholder’s assumed support or opposition to the use of animals in research. While standing with other student stakeholders holding similar views, students record their group’s top three supporting arguments. Groups with different perspectives then join together for a Structured Academic Controversy to present and listen to alternative viewpoints. Lastly, students drop their stakeholder roles and further define and justify their individual positions on the issue.

KEY CONCEPTS
• Positions on both sides of the animal research debate can be evaluated using various ethical perspectives. Two of the ethical perspectives that are relevant to this issue focus on the following:
  o The outcomes of an action (outcomes-based ethical perspective).
  o The moral rules and duties of that action (duties-based ethical perspective).
• The discipline of ethics provides a structured way to analyze conflicting views in order to come to well-reasoned arguments.
• Personal beliefs and values influence behavior.
• A strong justification for a position requires clearly stating the position, referencing accurate facts and science content, considering alternative views and options, and referencing ethical principles.

LEARNING OBJECTIVES
Students will know:
• An outcomes-based ethical perspective is focused on the outcomes of an action.
• A duties-based ethical perspective is focused on the moral rules and duties of an action.

Students will be able to:
• Describe major bioethical frameworks.
• Consider alternative perspectives and engage in shared decision-making.
• Explain why someone would be for or against the use of animals in research.
• Recognize that each individual has benefitted from the use of animals in research.

CLASS TIME
One and a half to two class periods of 50 minutes each.
MATERIALS

<table>
<thead>
<tr>
<th>Materials</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Handout 4.1—Outcomes-based and Duties-based Ethical Theories</td>
<td>1 per student</td>
</tr>
<tr>
<td>Student Handout 4.2—Structured Academic Controversy Worksheet</td>
<td>1 per student</td>
</tr>
<tr>
<td>Student Handout 4.3—Structured Academic Controversy FOR Arguments</td>
<td>1 per student for half the class</td>
</tr>
<tr>
<td>Student Handout 4.4—Structured Academic Controversy AGAINST Arguments</td>
<td>1 per student for half the class</td>
</tr>
<tr>
<td>Student Handout 4.5—Your Own Stand Homework Assignment</td>
<td>1 per student</td>
</tr>
<tr>
<td>Teacher Resource 4.1—Stakeholder Cards</td>
<td>1 set</td>
</tr>
<tr>
<td>Teacher Answer Key 4.2—Structured Academic Controversy Worksheet</td>
<td>1</td>
</tr>
<tr>
<td>Teacher Answer Key 4.3—Your Own Stand Homework Assignment</td>
<td>1</td>
</tr>
<tr>
<td>Two signs and tape. Signs should read: AGREE and DISAGREE</td>
<td>2 signs</td>
</tr>
</tbody>
</table>

TEACHER PREPARATION

- Make copies of Student Handouts.
- Make one single-sided copy of the Stakeholder Cards found on Teacher Resource 4.1—Stakeholder Cards. Cut out the cards to make one set.
- Make two signs. The signs should read: AGREE and DISAGREE. Tape the signs in two different areas of the classroom.

TEACHER BACKGROUND

Ethics is a field of study that looks at the moral basis of human behavior ("Why do we act as we do?") and attempts to determine the best course of action in the face of conflicting choices ("How do we decide what to do when people disagree about a complex issue?"). It is a key component to living within a society in a civilized way. Many teachers find the following analogy helpful in describing the difference between values, morals and ethics. Additional information can be found in the Appendix.

- **Values** are represented by the heart. They signify what is important, meaningful, and true for each of us.
- **Morals** are represented by the hands. They are demonstrated by our behavior. They signify how values are “put into practice” as actions.
- **Ethics** is represented by the head. Ethics rely on reasoned judgment, and provide a systematic, rational way to determine the best course of action in the face of conflicting choices.
PROCEDURE

ACTIVITY ONE: ETHICAL PERSPECTIVES IN ACTION

1. Tell students that they will be introduced to two ethical theories in this lesson that help frame the debate on animal research.
2. As a way of introducing ethical theories to students, ask them, “Is cheating on a test unethical? Why or why not?”
3. Write down the students’ answers (or key words from their answers) on the board.
4. Focus on student comments that are aligned with one of the three ethical theories, as described in Table 1:

<table>
<thead>
<tr>
<th>Possible Student Comments</th>
<th>Ethical Theory</th>
<th>Focus of Theory</th>
<th>Theoretical Questions and Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Cheating on a test is unethical because you might get caught.”</td>
<td>Outcomes-based ethical theory</td>
<td>The consequences, or outcomes, of an action.</td>
<td>“Does the result of my action cause benefit or harm?”</td>
</tr>
<tr>
<td>“Cheating is OK if it helps you get a better grade on a test.”</td>
<td></td>
<td></td>
<td>“Do the ends justify the means?”</td>
</tr>
<tr>
<td>“Cheating will hurt you in the long run because you’re not learning the material.”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Cheating is just wrong. If everybody cheated, grades wouldn’t mean anything.”</td>
<td>Duties-based ethical theory</td>
<td>The act itself.</td>
<td>“Would it be acceptable if everyone else were to act in this way?”</td>
</tr>
<tr>
<td>“Cheating is against the school rules and we should follow the rules.”</td>
<td></td>
<td></td>
<td>“Is the action, no matter the consequences, right or wrong?”</td>
</tr>
<tr>
<td>“Cheating is unfair to the person being used for cheating.”</td>
<td></td>
<td></td>
<td>“Are people being used in the process?”</td>
</tr>
<tr>
<td>“Cheating is wrong because it shows the cheater to be of poor character.”</td>
<td>Virtues ethics</td>
<td>The character of the person performing the act.</td>
<td>Our actions both build and reflect our character and core commitments.</td>
</tr>
</tbody>
</table>

5. **Outcomes-based ethical theory**: A student will likely say something along the lines of, “Cheating on a test is unethical because you might get caught.” Point out that this view reflects an outcomes-based ethical perspective. Outcomes-based ethical theory focuses on the consequence of an action and asks the question, “What are the consequences of the action?” It can also be stated as, “The ends justify the means.” In getting caught, the bad outcome (e.g., getting in trouble, losing points on the assignment, or being seen as dishonest) would outweigh any benefits from the cheating.

Conversely, if the student does not get caught cheating, the good consequences of a higher grade may outweigh the bad act. This is one of the limitations of this particular theory—it can allow for bad acts with good consequences.

6. **Duties-based ethical theory**: A student may say something along the lines of, “Cheating is just wrong. If everybody cheated, grades wouldn’t mean anything.” This view reflects the duties-based ethical perspective.
Duties-based ethical theory focuses on the act itself (as opposed to the consequences of that act), and asks the questions, “Would it be acceptable if everyone else were to act in this way?” and “Is the action, no matter the consequences, right or wrong?” It can also be stated as, “The ends do not justify the means.”

Another student might ask if a person is still cheating if he or she is given someone else’s work to use. The duties-based ethical perspective also recognizes individual rights and dictates that people not be treated as a means to an end. Ask students, “How does this affect the person being used for the cheating, either willingly or unwillingly?”

Duties and obligations can conflict with each other at times, and a limitation of this particular ethical theory is that it does not offer a way to reconcile this conflict. For example, when faced with a test for which the student has not adequately prepared, a student might feel a conflict between the duty to excel in school due to high family expectations, and the duty to be honest.

7. Virtues ethics: Another student may say that cheating is wrong because it shows the cheater to be of poor character. This view reflects virtues ethics, which emphasize that our actions both build and reflect our character and core commitments. This lesson will not focus on this ethical theory as it pertains to animal research.

Additional information on ethical theories and perspectives can be found in the Appendix.

ACTIVITY TWO: ETHICAL THEORIES AS APPLIED TO ANIMAL RESEARCH

8. Tell students that, as a society, our views on animal research are varied, complex, and have competing moral solutions. For this reason, ethical theories can provide a structured way to help students analyze arguments on both sides of the animal research debate.

9. Hand out Student Handout 4.1—Outcomes-based and Duties-based Ethical Theories, one copy per student. Ask students to read through the text as a class, in pairs, or individually.

10. Point out that both ethical viewpoints can be used to support either side of the debate. However, supporters of animal research often use the outcome-based perspective, and those in opposition to animal research often use the duties-based perspective.

ACTIVITY THREE: WHO ARE THE STAKEHOLDERS?

11. Tell students that a stakeholder is any person, institution, or entity that is interested in, invested in, or will be affected by the outcome of a decision. For this lesson, some of the stakeholders are philosophers who helped frame the debate on the use of animals in research.

12. Hand out one Stakeholder Card to each student (found on Teacher Resource 4.1—Stakeholder Cards). For large classes, student pairs can share one card. There are 21 stakeholder cards.

13. Tell students that the statements featured on the Stakeholder Cards are actual quotations from real people.

14. Explain to students that some of the quotations featured on the Stakeholder Cards are aligned with either a duties-based or an outcomes-based perspective. Highlight the stakeholder positions that have ties to duties-based and outcomes-based perspectives, as listed below. Ask the students with the following stakeholder cards to read their cards out loud and, as a class, identify the ethical position:
### Table 2: Select Stakeholder Perspectives

<table>
<thead>
<tr>
<th>Name</th>
<th>Ethical perspective</th>
<th>Key words or phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tom Regan</td>
<td>Duties-based</td>
<td>“We owe it [to animals]…to treat animals in a certain way.” It is the moral duty of humans to not treat animals as a means to an end.</td>
</tr>
<tr>
<td>Nancy Haigwood</td>
<td>Outcomes-based</td>
<td>“Leads to improved human health.” (The outcome) is justified when accomplished by “highly regulated” studies (the means).</td>
</tr>
<tr>
<td>David Jentsch</td>
<td>Duties-based</td>
<td>“We have a moral responsibility to use our skills…” It is the moral duty of researchers to seek cures.</td>
</tr>
<tr>
<td>Peter Singer</td>
<td>Outcomes-based</td>
<td>“…Suffering be counted equally with the like suffering…” Causing animals to suffer (the means) for the benefit of humans (the ends) is not justified.</td>
</tr>
</tbody>
</table>

15. Challenge students to read their stakeholder card and decide on their own if they think their cards clearly align with one of the ethical perspectives. You may also want to ask students to highlight or underline the text that supports the ethical perspective they have chosen. Point out that there is a place at the bottom of each card for students to circle the perspective to which the quotation is most aligned. [Note: Many stakeholder cards have elements of both ethical perspectives or may not have strong ties to either ethical theory.]

16. To support students who read at a lower level, point out that definitions to challenging words are provided on the Stakeholder Cards. In addition, you may choose to have students conduct a Think-Pair-Analyze-Share activity. First, have students read their own cards. Then, have each student read his or her card aloud to a partner. Each pair should then work together to analyze the cards and the meaning of the quotations. If the pair is unable to comprehend the quotations, they can then meet with another student pair for assistance deciphering the text. Finally, have each pair share their quotations, and meanings, with the class.

17. Point out the two signs in the room (AGREE and DISAGREE). Tell students that they are going to position themselves around the room according to the perceived view of their stakeholder.

Many of the stakeholder comments are complex and require students to think critically about how the statement relates to an ethical theory. Class time dedicated to working through the stakeholder perspectives can lead to rich discussion; however, if it is too challenging for students to identify a stakeholder’s ethical perspective, then teachers should skip to Step #15.

18. Remind students that they are not representing their own views, but those of their stakeholder. It may be helpful to revisit your classroom discussion norms at this point.

19. Read the first statement outlined in Table 3. Have students show their stakeholder’s agreement or disagreement with the statement by moving to the area of the room that represents their stakeholder’s position. Give students one or two minutes to talk with others in the group to make sure their stakeholder view has been interpreted correctly. Students can move around the room as needed. Repeat the process with the remaining three statements in Table 3.

### Table 3: Stakeholder Statements

<table>
<thead>
<tr>
<th>Statements</th>
<th>Student Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I believe that it is unethical to conduct any research involving animals.”</td>
<td>This statement should split stakeholders into basic “for” or “against” groups, with those against animal research under the Agree sign.</td>
</tr>
<tr>
<td>“I am concerned with the welfare of animals.”</td>
<td>This statement would likely apply to all stakeholders, with everybody under the Agree sign.</td>
</tr>
<tr>
<td>“I am willing to resort to violence to get my point across.”</td>
<td>Very few stakeholders should agree with this view.</td>
</tr>
<tr>
<td>“I believe that it is acceptable to conduct important research using animals that are treated in a humane manner.”</td>
<td>This statement should also split stakeholders into basic “for” or “against” groups, with those for animal research under the Agree sign.</td>
</tr>
</tbody>
</table>
20. With students still separated according to their stand on the last statement, ask the following questions to further explore stakeholder views (not student views):

- Are there any stakeholders missing? Which ones?  
  Possible answers may include:
  
  a) The animals.
  
  b) Scientists who agree with unethical or inhumane treatment of animals.
  
  c) Religious perspectives on human dominion and/or stewardship of animals.

- Have you, as a stakeholder, personally benefitted from research on animals?  
  Unless the stakeholder does not use any drug, medical device or treatment, and has never been immunized, he or she has benefitted.

- What behaviors might reflect one’s beliefs on the issue of using animals in research? Some stakeholders might not: eat meat; use animal products such as eggs, dairy, and honey; wear leather; or own pets.

**ACTIVITY FOUR: ANIMAL RIGHTS OR ANIMAL WELFARE?**

21. Explain that some of the Stakeholder Cards feature quotations from people who are members of animal rights groups and animal welfare groups. Tell students that the difference between animal rights groups and animal welfare groups can be difficult to determine, and these terms are often used interchangeably. They do not, however, mean the same thing. Share the following meanings with students:

- **Animal Rights:** These organizations advocate that non-human animals deserve the same rights as humans and that the use of them in any way, including household pets, entertainment, and foods is inhumane and unethical. Some animal rights organizations advocate violence to prevent the use of animals, but not all. Those that do tend to be underground organizations to avoid prosecution.

- **Animal Welfare:** These organizations work with biomedical research regulatory bodies and agencies that promote animal research to ensure the ethical and humane use of animals. These organizations do not argue that animals should never be used by humans and do not advocate violence.

22. Ask students if they think that their stakeholders would consider themselves to be animal rights or animal welfare activists.

23. Next, ask students if they personally hold views that are aligned with animal rights or animal welfare organizations.

24. A partial list of animal rights and animal welfare organizations can be found in the *Appendix*.

**ACTIVITY FIVE: STRUCTURED ACADEMIC CONTROVERSY**

Structured Academic Controversy is a text-based, small group deliberation model where students explore both sides of an issue before examining their own personal views. Active listening is an important part of the process.

25. Provide a few minutes for students standing under the Agree and Disagree signs to talk with like-minded stakeholders and identify the strongest arguments that support their position.

26. Next, create new groups of four students each for the Structured Academic Controversy activity. Each group should have two students from the stakeholder group that is FOR humane animal research and two students from the stakeholder group that is AGAINST animal research. Students may sit down with their groups at their desks.

27. Students may draw on the best arguments put forth by any stakeholder with the same FOR or AGAINST stance, and may drop their individual stakeholder viewpoint at this time.

28. Share with students the framework of a Structured Academic Controversy. The basic framework is outlined below:

- Two students represent the FOR position; two argue the AGAINST position.
- Each pair reads background for their position and prepares their argument.
- The FOR pair presents while the AGAINST pair listens.
- The AGAINST pair paraphrases the FOR pair’s arguments and asks clarifying questions only.
- The AGAINST pair presents while the FOR pair listens.
- The FOR pair paraphrases the AGAINST pair’s arguments and asks clarifying questions only.
• Students drop their assigned roles and discuss their own personal positions.
• Students clarify areas of agreement and disagreement.

29. Introduce the ethical question that students will be exploring during the Structured Academic Controversy: “Should the humane use of animals be allowed in biomedical research?”

30. Remind students of your classroom discussion norms. For example, students should speak one at a time, hear all sides equally, listen well enough to respond, and back up their opinions with clear reasons.

31. Distribute one copy of each of the following handouts to each student: Student Handout 4.2—Structured Academic Controversy Worksheet and Student Handouts 4.3 and 4.4—Structured Academic Controversy FOR and AGAINST Arguments.

32. In their pair groups, have students fill out the Relevant Facts and Stakeholders and their primary concerns sections of Student Handout 4.2—Structured Academic Controversy Worksheet. Students should represent their stakeholder positions, not their personal positions.

33. Ask each pair to read the background information supporting their position. Together, have each pair plan a presentation of their position and arguments. Students should focus on the three most important arguments.

34. Have one side present, while the other side listens and then repeats. Have one side present their three most important arguments to the other side. The other side needs to listen carefully, take notes, and then paraphrase the arguments to be sure that they understand them, while asking clarifying questions as necessary. Emphasize that there is no discussion at this point. The presenters should be satisfied that their position has been heard and understood.

35. Have the pairs switch and repeat the process.

36. Next, ask students to drop their roles. Challenge students to proceed as their own individual selves with their own opinions and positions. They should use information from their own experiences as well as the background readings. Ask students to hear the positions of everyone in their group. When everybody has had a chance to share, have the students identify areas of agreement and disagreement. Tell students that they are free to change their minds.

37. While working as a group, students should identify possible solutions and options as they are prompted on Student Handout 4.2—Structured Academic Controversy Worksheet.

38. If students reach an impasse and have difficulty reaching common ground, provide them with the list of possible solutions found on the Teacher Answer Key 4.2. The list can be used to generate areas of agreement and disagreement.

CLOSURE

39. Gather student attention back from the small groups, and ask students to share the Areas of agreement and disagreement reached in the argument (referring to the last part of Student Handout 4.2—Structured Academic Controversy Worksheet).

40. Ask the students who are holding the stakeholder cards from Peter Singer and Jerry Vlasic to read their cards out loud to the class. Ask the students, “How do Peter Singer’s views differ from Jerry Vlasic’s views? They both oppose animal research, yet have very different tactics. How can we look beyond the label and look for nuanced views on the subject?”

42. Ask students to identify the extreme positions on the spectrum of stakeholder views. How do extreme positions advance a cause? Or does change come from a more central stance?

HOMEWORK

• Distribute copies of Student Handout 4.5—Your Own Stand Homework Assignment, one per student, to be completed as homework. This will give students a chance to express their own views on the subject of animal research. Make sure to let students know that their answers will be assessed for completeness and level of reasoning, not their position on the issue.
GLOSSARY

Animal Rights: Animal rights organizations advocate that non-human animals deserve the same rights as humans and that the use of them in any way, including as household pets, entertainment, and food is inhumane and unethical. Some animal rights organizations advocate violence to prevent the use of animals, but not all. Those that do tend to be underground organizations to avoid prosecution.

Animal Welfare: Animal welfare organizations work with biomedical research regulatory bodies and agencies that promote animal research to ensure the ethical and humane use of animals. Animal welfare activists believe that it is morally acceptable to use animals for human purposes, as long as the animal’s welfare (physical and psychological well-being) is protected. These organizations do not argue that animals should never be used by humans and do not advocate violence.

Duties-based Ethical Theory: An ethical theory that focuses on the act itself (as opposed to the consequences of that act), and asks the question, “Would it be acceptable if everyone else were to act in this way? Is the action, no matter the consequences, right or wrong?” This theory can also be thought of as, “The ends do not justify the means.”

Ethics: A field of study that looks at the moral basis of human behavior and attempts to determine the best course of action in the face of conflicting choices.

Humane: Treating animals with respect and care.

Moral: Codes of conduct governing behavior; an expression of values reflected in actions and practices.

Moral Duty: The duty or obligation that arises out of a consideration of what is right and wrong.

Outcomes: The consequences or end results of an action.

Outcomes-based Ethical Theory: An ethical theory that focuses on the consequence of an act, and asks the question, “What are the consequences of the action?” In getting caught, the bad outcome (e.g., getting in trouble, losing points on the assignment, or being seen as dishonest) would outweigh any benefits from the cheating. This theory can also be thought of as, “The ends justify the means.”

Speciesism: Belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.

Stakeholder: Any person, institution, or entity that is interested in, invested in, or will be affected by the outcome of a decision.

Virtues Ethics: As one of the approaches of normative ethics, virtues ethics emphasize the moral character (virtues), rather than duties (actions) or outcomes (consequences of actions).

RESOURCES

Teachers who would like more information on ethical theories and their application in the classroom will find lessons, activities, student handout and teachers resources in An Ethics Primer: Lesson Ideas and Ethics Background by Jeanne Ting Chowning and Paula Fraser, produced through the Northwest Association for Biomedical Research. The complete Ethics Primer is available free for download from http://www.NWABR.org.
CREDIT

Nancy Haigwood Quotation

Paula Begoun Quotation
http://www.cosmeticscop.com/paula-begoun-about.aspx

Bruce Fuchs Quotation

David Jentsch Quotation

Frank Lautenberg Quotation

Tom Regan Quotation
http://www.think-differently-about-sheep.com/Animal_Rights_A_History_Tom_Regan.htm

Peter Singer Quotation

Eric Mills Quotation
e-mailed to ANIMAL PEOPLE
http://www.animalpeoplenews.org/ap7808.htm#arsons

Ingrid Newkirk Quotation
http://activistcash.com/biography_quotes.cfm/b/456-ingrid-newkirk

Pam Ferdin Quotation

Merritt Clifton Quotation

Dr. Jerry Vlasic Quotation

Ann Berlin Quotation

Rev. Dale Turner Quotation
Originally from the “By Religion” section of the Seattle PI. Reprinted from Northwest Associate for Biomedical Research. (2004). For the Greater Good Curriculum Guide.

Dr. Geneviève Clavreul Quotation
http://newstandardnews.net/content/index.cfm/items/2378

Kevin Elliot Quotation
http://www.understandinganimalresearch.org.uk/your_views/your_stories

Kevin Kjonaas Quotation

Gary Berthold Quotation
http://newsblaze.com/story/20090226054411allm.nb/topstory.html

Alaron Lewis Quotation
Personal conversation, 9 December 2010.

Laurie Hassell Quotation
Personal conversation, 8 November 2010.

Lillian Zalduondo Quotation
American Association for Laboratory Animal Science. (2006). Accept the Challenge to Care; Careers in Laboratory Animal Science.
The animal research debate is filled with voices expressing differing views and perspectives. Views on both sides of the argument are often accompanied by strong feelings, and the ethical issues that arise may involve conflicting moral choices.

The field of ethics helps us analyze the arguments in a structured way to come to well-reasoned decisions. Ethics is a branch of philosophy that explores questions of morality, such as concepts of right and wrong. Ethics helps us choose the best course of action (how shall we behave?) in the face of conflicting choices.

The two ethical theories that are often applied to this debate are described below.

### Outcome-based Ethics

**How can we bring about the greatest good for the greatest number?**

An action is right if good consequences outweigh bad consequences. Costs and benefits are analyzed, and the action is ethically appropriate if “the ends justify the means.”

This ethical theory is also referred to as Consequentialist or Utilitarian Ethics.

**In support of research:** The vast benefits of research to both humans and animals outweigh the cost to animals if the research is conducted in a 
**humane** way. Humane treatment means to treat animals with respect and care. The **ends** (elimination of polio, smallpox, and measles; treatments for cancer and heart disease, etc.) justify the means (using animals—mostly rodents and fish—in studies in which pain and suffering have been minimized or eliminated).

**In opposition to research:** Animals should be given equal moral weight and value to humans, in which case the ends (better health for humans) do not justify the means (harm to a larger number of animals). Bringing about the greatest good for one species at the expense of another species is speciesism, which is similar to sexism or racism. Speciesism is the belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.

### Duties-based Ethics

**How shall we treat each other and other living things? What are our moral duties to each other?**

An action is right if it follows certain fundamental rules or duties, such as respecting individuals and not treating people as a means to an end. The focus on “animal rights” often falls under duties-based ethics.

This ethical theory is also referred to as Deontological or Moral Rules-based Ethics.

**In support of research:** As human beings with the capacity to study and treat disease, we have the moral duty to minimize pain and suffering of people afflicted with disease. A **moral duty** is the duty or obligation that arises out of a consideration of what is right and wrong. As humane research with animals also helps animals, our duty to study and treat disease extends to animals with diseases. Humane treatment means treating animals with respect and care.

**In opposition to research:** Animals have the basic moral right to be respected for their inherent value and worth, and should not be treated as a “means to an end.” It is our moral duty to speak up for those who are oppressed and cannot speak up for themselves, including animals.
The Issue: Should the humane use of animals be allowed in biomedical research?

Team Members FOR:

1.

2.

Team Members AGAINST:

1.

2.

Relevant facts:

Stakeholders and their primary concerns:
### Main argument(s) **FOR:**
1. 
2. 
3. 

### Main argument(s) **AGAINST:**
1. 
2. 
3. 

### List of possible solutions: (What are the options furthest out on each side? What options occupy the middle ground?)

### Areas of agreement and disagreement:
Team members FOR:
Yes, the humane use of animals should be allowed in biomedical research.

1. 
2. 

Select Stakeholder FOR Arguments

“Responsible use of animals in research aimed at improving the health and welfare of the mentally ill is the right thing to do, and we will continue because we have a moral responsibility to society to use our skills for the betterment of the world.”

- David Jentsch

“I absolutely do not want to see even one animal die by being force-fed foundation or eye shadow to prove favorable formulations. Yet, if sacrificing an animal’s life can help find the cure for Alzheimer’s, prevent more cancers, or reduce the risks of high blood pressure and a host of other illnesses, I would and do support that research…. Children who survive leukemia owe their lives to animal testing.”

- Paula Begoun

 “…Our view is that because animal studies lead to improved human health, they should be considered acceptable—provided the studies are highly regulated, the animals are well cared for, and suffering is not allowed.”

- Nancy Haigwood

“If we [biomedical researchers] were able to acquire the information needed to adequately answer compelling research questions without the use of animals, who among us would not gladly do so? Nevertheless, one of the best methods we have developed to advance biomedical knowledge involves the use of animals….however….any such use should be preceded by a moral judgment. Do the benefits derived from the biomedical research that is being considered offset the associated moral costs?”

- Bruce Fuchs

“I believe that laboratory tests involving animals can be necessary and important for the advancement of science and medicine and the protection of public health. I would hope that that wasn’t the case. But if that is determined that that is the only way to establish the safety and efficacy of a product that is going to be used on humans, unfortunately, so be it. When such testing is necessary, it must be conducted under strict standards and subject to regular inspection and oversight.”

- Frank Lautenberg

Ethical Arguments SUPPORTING Animal Research

Outcomes-based perspective: The vast benefits of research to both humans and animals outweigh the cost to animals if the research in conducted in a humane way. The ends (elimination of polio, smallpox, and measles; treatments for cancer and heart disease, etc.) justify the means (using animals—mostly rodents and fish—in studies in which pain and suffering have been minimized or eliminated).

Duties-based perspective: As human beings with the capacity to study and treat disease, we have the moral duty to minimize pain and suffering of people afflicted with disease. A moral duty is the duty or obligation that arises out of a consideration of what is right and wrong. As humane research with animals also helps animals, our duty to study and treat disease extends to animals with diseases. Humane treatment means to treat animals with respect and care.
Team members AGAINST:
The use of animals should not be allowed in biomedical research.

1.

2.

Select Stakeholder AGAINST Arguments

“Many people think that we should be nice to animals because if we are not nice to animals we will not be nice people, and then we will end up beating up our children and our neighbors and so on. The problem is, these views don’t focus on our duty to animals but only on the effects our treatment of animals has on us. The rights view says, “We owe it as a matter of strict justice to treat animals in a certain way.” In particular we owe it to these animals not to eat them, for example, or not to put them in cages for our entertainment, or not to use them in education or in surgery.”

-Tom Regan

“We cannot justify [killing animals] by arguing that such a practice brings about intrinsically valuable experiences for others.”

-Tom Regan

“The goal of PETA is total animal liberation and the day when everyone believes that animals are not ours to eat, not ours to wear, not ours to experiment on, and not ours for entertainment, or for any exploitive purpose.”

-Ingrid Newkirk

“Speciesism is a prejudice or attitude of bias in favor of the interests of members of one’s own species... Members of the exploited group cannot themselves make an organized protest against the treatment they receive (though they can and do protest to the best of their abilities individually). We have to speak up on behalf of those who cannot speak for themselves. You can appreciate how serious this handicap is by asking yourself how long blacks would have had to wait for equal rights if they had not been able to stand up for themselves and demand it. The less able a group is to stand up and organize against oppression, the more easily it is oppressed.”

-Peter Singer

“If you are killing an animal, I don’t care if it is to beautiful music. I don’t care if it is with pretty floral wallpaper. I don’t care if they are killed on velvet sheets. They are killed. And that is not our right. It is not ours.”

-Pam Ferdin

Ethical Arguments AGAINST Animal Research

Outcomes-based perspective: Animals should be given equal moral weight and value to humans, in which case the ends (better health for humans) do not justify the means (harm to a larger number of animals). Bringing about the greatest good for one species at the expense of another species is speciesism, which is similar to sexism or racism. Speciesism is the belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.

Duties-based perspective: It is our moral duty to speak up for those who are oppressed and cannot speak up for themselves, including animals. A moral duty is the duty or obligation that arises out of a consideration of what is right and wrong. Animals should not be treated as a “means to an end” without respecting their inherent value and worth.
1. What is your position on the use of animals in research?

2. With which of the stakeholder viewpoints from this lesson do you most closely align? Why?

3. In what way does an ethical perspective best support your view?

4. What scientific facts will you use to support your position?

5. What sort of personal actions can you take that support your position on this issue?
TEACHER RESOURCE 4.1
Stakeholder Cards

Nancy Haigwood

“I’m a health researcher who studies animals in order to develop new treatments and cures. When you hear protesters claiming that research animals are mistreated, they’re yelling about me. So what drives animal researchers like me? Simply put, our view is that because animal studies lead to improved human health, they should be considered acceptable—provided the studies are highly regulated, the animals are well cared for, and suffering is not allowed. This is not a unique view. It’s also shared by the National Institutes of Health, the American Medical Association, and the American Veterinary Medical Association.”

~ Nancy Haigwood is a senior scientist and director of the Oregon National Primate Research Center.

Duties-based perspective • Outcomes-based perspective • Both

Tom Regan

“Many people think that we should be nice to animals because if we are not nice to animals we will not be nice people, and then we will end up beating up our children and our neighbors and so on. The problem is, these views don’t focus on our duty to animals but only on the effects our treatment of animals has on us. The rights view says, ‘We owe it as a matter of strict justice to treat animals in a certain way.’ In particular we owe it to these animals not to eat them, for example, or not to put them in cages for our entertainment, or not to use them in education or in surgery.’

“We cannot justify [killing animals] by arguing that such a practice brings about intrinsically valuable experiences for others.”

~ Tom Regan is a philosopher and author of the book The Case for Animal Rights.

Intrinsically: Essentially.

Duties-based perspective • Outcomes-based perspective • Both

David Jentsch

“Responsible use of animals in research aimed at improving the health and welfare of the mentally ill is the right thing to do, and we will continue because we have a moral responsibility to society to use our skills for the betterment of the world.”

~ David Jentsch is a UCLA Neuroscience Professor.

Duties-based perspective • Outcomes-based perspective • Both
“Speciesism is a prejudice or attitude of bias in favor of the interests of members of one’s own species...”

“We have to speak up on behalf of those who cannot speak for themselves. The less able a group is to stand up and organize against oppression, the more easily it is oppressed.”

“If a being suffers there can be no moral justification for refusing to take that suffering into consideration. No matter what the nature of the being, the principle of equality requires that its suffering be counted equally with the like suffering—insofar as rough comparisons can be made—of any other being.”

~ Peter Singer is a philosopher and author of the book Animal Liberation.

Speciesism: The belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.

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“I absolutely do not want to see even one animal die by being force-fed foundation or eye shadow to prove favorable formulations. Yet, if sacrificing an animal’s life can help find the cure for Alzheimer’s, prevent more cancers, or reduce the risks of high blood pressure and a host of other illnesses, I would and do support that research....Children who survive leukemia owe their lives to animal testing.”

~ Paula Begoun is the owner of Paula’s Choice skin care and cosmetics line. Begoun is an author and consumer expert for the cosmetics industry. She has appeared on CNN, Oprah, The Today Show, The View and others. Her cosmetics are not tested on animals.

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“The goal of PETA is total animal liberation and the day when everyone believes that animals are not ours to eat, not ours to wear, not ours to experiment on, and not ours for entertainment, or for any exploitive purpose.”

“Even if animal tests produced a cure for AIDS, we’d be against it.”

~ Ingrid Newkirk is president of People for the Ethical Treatment of Animals (PETA).

Exploitive: Using a person, animal, or group for one’s own profit or advantage.

“Speciesism is a prejudice or attitude of bias in favor of the interests of members of one’s own species...”

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Speciesism: The belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.
“If we [biomedical researchers] were able to acquire the information needed to adequately answer compelling research questions without the use of animals, who among us would not gladly do so? Nevertheless, one of the best methods we have developed to advance biomedical knowledge involves the use of animals, which, unlike the test tube, have interests…The fact that animals have interests does not necessarily mean that we should never use them in biomedical experiments; however, it does mean that any such use should be preceded by a moral judgment. Do the benefits derived from the biomedical research that is being considered offset the associated moral costs?”

~ Bruce Fuchs is Director of the NIH Office of Science Education. He is also a vegetarian.

If you are killing an animal, I don’t care if it is to beautiful music. I don’t care if it is with pretty floral wallpaper. I don’t care if they are killed on velvet sheets. They are killed. And that is not our right. It is not ours.

~ Pam Ferdin is member of the Animal Defense League in Los Angeles.

“I believe that laboratory tests involving animals can be necessary and important for the advancement of science and medicine and the protection of public health. I would hope that that wasn’t the case. But if that is determined that that is the only way to establish the safety and efficacy of a product that is going to be used on humans, unfortunately, so be it. When such testing is necessary, it must be conducted under strict standards and subject to regular inspection and oversight.

I helped establish [the Lautenberg Cancer Research Center] because my father died when he was 43 years old. My uncle died when he was 52, also of cancer. Their father died also of cancer when he was 56. And when I had the good fortune of success in business, I put some resources into a group of New Jersey scientists who were moving abroad to learn more about cancer research. After watching my father suffer for a year and finally die, I made the decision then that I would do whatever I can to try and prevent another family from undergoing the same torture and grief.”

~ Frank Lautenberg is a senator from New Jersey.

**Efficacy:** Having the capacity to produce a desired effect.
“I think, tactically, if you were to take animal experimenters and if you were to ask them to stop experimenting on animals but they didn’t, and if you explained to them why they should and they still didn’t, and you told them to stop and they still didn’t, that if you stopped them physically, whether you killed them or otherwise stopped them I think you wouldn’t have to kill more than ten or fifteen of these animal abusing research scientists to get a lot of people to start thinking, ‘Do I really want to do animal research?’ Here are people who are abusing animals, are getting paid to abuse animals. You ask them to stop, and they don’t want to stop. You tell them to stop, and they still don’t want to stop. Then you stop them, using whatever means are necessary. I think that’s a morally defensible argument.”

~ Jerry Vlasic is a trauma surgeon and Animal Liberation Front (ALF) press officer.

“A dog was one of my earliest companions, and I have treasured the company of dogs and other animals through the years. Animals are such agreeable friends. They ask no questions and pass no criticism…”

“Thoughtful people today are asking if we have the right to experiment on animals and sacrifice their lives to discover ways to improve the lot of humans. What are the alternatives [to animal research], imperfect though they may be? To ban all medical research using animals would be to abandon millions of human beings, now living and not yet born, to suffering and premature death that might be prevented through supervised animal research. Many famed surgeons attest to the fact that millions of lives have been prolonged and improved through research on kidney disease, cancer, diabetes, Alzheimer’s disease, blindness, and many other maladies to which humans are subject.”

~ Dale Turner was a minister with the United Church of Christ and public representative on the University of Washington Animal Care and Use Committee (IACUC).

Maladies: Diseases and illnesses.

After receiving his conviction and sentencing to jail time: “All this for animals? It’s the same sort of question I imagine abolitionists were asked: All this for a black? Or men involved in the suffrage movement. All this so women can vote? All this so kids don’t have to work in those sweatshops? So these people can have fair labor laws? For the Irish? For the Jews? The same questions have been asked over and over again in every other social justice movement, and now it’s finally being asked of animals. Yes. All this for an animal.”

~ Kevin Kjonaas is a member of Stop Huntingdon Animal Cruelty (SHAC).

He was sentenced to six years in prison and $1 million fine under the Animal Enterprise Terrorism Act.

Abolitionists: Activists who fought for the abolition—or banning—of slavery.

Suffrage Movement: A social justice movement fighting for women’s right to vote.
| Laurie Hassell | “I don’t want to get into an argument over what is right and what is wrong with animal research. I am simply grateful for the animals used in research. Without the animals used in asthma research, my son would have died when he was three years old.”

~ Laurie Hassell is the regional manager for the Northwest Association for Biomedical Research. |

| Duties-based perspective • Outcomes-based perspective • Both |

| Merritt Clifton | “If you want to achieve a reduction in the animal suffering involved in experimentation what you really want to do is put it in the places where it is under a microscope, where it’s under constant supervision, like England and the United States and a couple of other countries in western Europe. They [Animal Liberation Front (ALF)] are basically working for the other side, because they are removing animal experimentation from a part of the world where there is some transparency, some regulation, some regular governmental inspection. You’ve got freedom of speech and press so that you can protest if things are not being done as they should. Work that used to be done in places like New Jersey and England is now being done in places like Ghana, Pakistan, and South Korea where you have limited [regulation].

~ Merritt Clifton is editor of the Animal People News. |

| Duties-based perspective • Outcomes-based perspective • Both |

| Kevin Elliot | “Until recently I had a serious spinal condition, which left me in massive pain and hardly able to work. Thanks to animal-based research I had an operation where bone was taken out of my pelvis and placed into my spine to reinforce it. The pain has now completely gone; I can work full-time and have a social life.”

~ Kevin Elliot is a patient. |

| Duties-based perspective • Outcomes-based perspective • Both |
“I call it [firebombs detonated on a porch and in a home belonging to a university researcher] terrorism. Such actions put people in danger, and do nothing to help animals, or further our cause; indeed, they are counter-productive, and will serve only to make things more difficult for the law-abiding. I think we, as a humane movement—both organizations and individuals—need to speak up loud and clear in condemning these tactics. We all deserve better, humans and nonhumans alike. Which is not to condone animal research—I hate it. Even if it were to save the entire human race, which of course it won’t and can’t, I am opposed to invasive research on animals for ethical and moral reasons.”

~ Eric Mills is founder of Action for Animals and is a veteran animal rights lobbyist.

**Humane:** Humane treatment means treating animals with respect and care.

**Condone:** To approve, accept, or allow.

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“We lost three of our Siberian Huskies, who were our close family members, to cancer.” When no readily available or practical solutions were found, the Bertholds vowed: “We would spend the rest of our lives for the sake of our living dogs—in addition to all other dogs—attempting to find better, improved cancer treatments.” They say, “We certainly hope our treatments will provide a better quality of life to companion animals with cancer, in addition to the possibility of increasing lifespan.”

~ Gary Berthold is founder of PharmaCom BioVet, which conducts research, development, and testing (on dogs) to bring canine cancer treatment devices and formulas to the market.

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“The Animal Liberation Front consists of small autonomous groups of people all over the world who carry out direct action according to the ALF guidelines. Because non-human animals lack political power, speciesism will be harder to overcome than sexism or racism. There will always be a need for people to take direct action to protect animals from abuse, just as there will always be a need for people to intervene, regardless of the consequences, in all other forms of domestic violence. We’ll know our work is nearly complete when the public understanding of animal sentience reaches the point where people accept that violence is just as acceptable to use in defense of animals as it is in defense of human beings.”

~ Ann Berlin is a member of the Animal Liberation Front (ALF).

**Autonomous:** Self-governing.

**Speciesism:** The belief that the human species is superior to all other species, and therefore, different rights and values should be assigned to humans and other animals on the basis of their species.

**Sentience:** Consciousness and the ability to think and feel.
Dr. Clavreul’s group targeted Hollywood celebrities, such as Charlize Theron, who support PETA, “calling them to account for their high-profile role in hindering the search for a cure to AIDS.” She was motivated to take action because of her long-time work with scientists who are focused on developing vaccines for HIV. “We are going to have to go to an animal model to do it,” Clavreul said, “and I don’t want to have to be fighting every five minutes against PETA.”

“You cannot wear an AIDS ribbon and call yourself a PETA supporter. It is an insult to the 37 million people living with HIV/AIDS and it is an insult to the memory of the 20 million people who have died from this terrible disease.”

~ Dr. Genevieve Clavreul is an organizer of Patient Advocates Against PETA (PAAP). PAAP is made up of a number of HIV/AIDS advocacy groups.

“[I] know that the goal is to reduce the number of animals used in research by moving to cell and tissue cultures and computer models. But animal systems are extremely complex. Even if we could, by the time we build the same sort of whole-animal complexity in a culture dish, we would basically have a whole, brain-dead mouse in a culture dish. And is it better to have a man-made almost-animal in your dish, than it is to have a mouse in a cage that is treated humanely during the research process? I think using the mouse as a model is the best alternative.”

~ Alaron Lewis is an adjunct Professor at the University of Puget Sound.

Humanely: In a manner that is respectful and careful of animals.

“I know that these animals are not suffering. I know that if I see something that’s not what I feel is right, or I feel the animal is in some type of discomfort, then I can say, ‘Hey, that is not right,’ and they stop it. Everyone stops everything, and looks at it and analyzes it. If the animal needs pain medication, then it gets pain medication or whatever the case may be.”

~ Lillian Zalduondo is a Vet Tech/Lab Animal Tech.
THE ISSUE:
SHOULD THE HUMANE USE OF ANIMALS BE ALLOWED IN BIOMEDICAL RESEARCH?

Relevant facts:

Student responses should include relevant facts pulled from any lesson in the curriculum. Sample answers may include:

- Ninety percent of research animals are rodents.
- Animal research is regulated by IACUC committees, the Animal Welfare Act, the FDA, and others.
- Abuses to animals have occurred in the past.
- Researchers are guided by the principles found in the 3 Rs.
- Different ethical viewpoints frame the animal research argument.
- Specific animals are used to answer specific research questions.

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<tr>
<th>Exemplary (5 points)</th>
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<tbody>
<tr>
<td>Provides five or more relevant facts.</td>
<td>Provides three or four relevant facts.</td>
<td>Provides one or two relevant facts.</td>
<td>Does not provide a response.</td>
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Stakeholders and their primary concerns:

Student responses should identify the stakeholders that align with the two sides of the issue and briefly identify each stakeholder’s primary concern(s). Responses should identify stakeholders by the groups to which they belong, rather than listing the names of individuals from the Stakeholder Cards. Examples of stakeholder groups and interests include, but are not limited to, the following:

- **Biomedical researchers:** Animals are critical to their research.
- **Medical professionals (e.g. doctors, pharmacists, surgeons, etc.):** Discoveries from animal research form the foundation of medical treatments, surgical techniques, and therapies for human patients.
- **Patients:** Discoveries from animal research ensure that treatments, surgical techniques, and therapies are safe and effective.
- **Veterinarians:** Discoveries from animal research form the foundation of medical treatments, surgical techniques, and therapies for animal patients.
- **Pharmaceutical and biomedical company executives:** Maintaining product quality and safety, as well as the company’s public image, is critical for success.
- **Animal welfare advocates:** Desire that the welfare (physical and psychological) of animals used in research is maintained.
- **Animal rights activists:** Desire the assignment of rights to all animals and the elimination of speciesism.
- **Philosophers:** Ethical perspectives provide a framework for discussing and thinking about the issue of animal research.
- **The public:** Public health initiatives, such as vaccinations for childhood diseases, increase the level of health for all.

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<tr>
<td>Provides a list of stakeholder groups and identifies the primary concern(s) of each group.</td>
<td>Provides a list of stakeholder groups.</td>
<td>Provides a list of names from the Stakeholder Cards.</td>
<td>Does not provide a response.</td>
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Main arguments **FOR**:  

Student responses should include three main arguments in support of animal testing.  
Student responses may include:

- When animals are treated humanely, the benefits to humans (past and future) outweigh the cost to selectively-used animals.
- *We have the moral duty to seek cures for the sick and ailing among us.*
- People have died in the past when medicines haven’t been tested first on animals. That is too high a risk.
- *The law states that animal testing is a requirement for medicines before human use.*
- Research with animals benefits animals, too.
- *Current rules and regulations adequately protect the animals used for research.*

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<tr>
<td>Provides three arguments <strong>FOR</strong> animal testing drawn from any lesson. The arguments are well formed, evidence-based, and clearly argue in support of animal testing.</td>
<td>Provides three arguments <strong>FOR</strong> animal testing drawn from any lesson.</td>
<td>Provides one or two arguments <strong>FOR</strong> animal testing drawn from any lesson.</td>
<td>Does not provide a response or the provided arguments are not in support of animal testing.</td>
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Main arguments **AGAINST**:  

Student responses should include three main arguments against animal testing.  
Student responses may include:

- *Animals should be respected for their inherent value and worth, and not used for human gain.*
- Using animals is “speciesism” and humans need to stand up for and protect animals that cannot speak for themselves.
- Even if done humanely, it is not a human right to kill an animal for any reason.
- *Current rules and regulations do not adequately protect the animals used in research.*
- *Because animal research exists, not enough money and effort are put towards other research methods.*

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<td>Provides three arguments <strong>AGAINST</strong> animal testing drawn from any lesson. The arguments are well formed, evidence-based, and clearly argue against animal testing.</td>
<td>Provides three arguments <strong>AGAINST</strong> animal testing drawn from any lesson.</td>
<td>Provides one or two arguments <strong>AGAINST</strong> animal testing drawn from any lesson.</td>
<td>Does not provide a response or the provided arguments are not against animal testing.</td>
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List of possible solutions:

Student responses should include a list of solutions to the ethical arguments concerning animal research. It may be helpful for students to brainstorm options furthest out on each side. Students do not need to agree on the solutions at this step.

Student responses may include:

- Allow NO research on any animal and shoulder the repercussions of halting the biomedical research process.
- Allow research on lower animals only. Students can work together to define “lower.”
- Allow research on animals for drugs and medical treatments but not cosmetics.
- Allow research on all animals as long as there is regulatory oversight to insure humane treatment.
- Reduce the amount of regulations around animal research so that researchers can find cures and treatments more quickly.
- Allow animals (especially higher organisms) to be released after a study instead of being euthanized, when possible.
- Add rodents and birds to the species covered under the Animal Welfare Act, and increase funding to this agency for appropriate supervision.

Areas of agreement and disagreement:

Student responses should describe areas of agreement and disagreement or, when possible, the common ground reached by group members from both sides of the issue. Common ground may be reached by students agreeing to any of the possible solutions proposed in the previous section, or agreeing to certain principles such as:

- Biomedical researchers should follow the principles of the 3 Rs, thereby reducing the need for animals over time.
- Any animal research should be done under tightly regulated, supervised and humane conditions.
- Using violence to further a cause is not acceptable.

If students have a difficult time reaching agreement on concepts or principles, it may be helpful for each side to simply come to agreement about the type of language, or terms used, that are acceptable to everybody taking part in the discussion. For example, some people in favor of research find the use of the words “vivisectionist” and “torture” to be misused and inflammatory; some people against research find the word “humane” misused, and find reference to all people interested in animal rights as “extremists” inflammatory. Coming to agreement over the terms themselves may lead a team to reach some common ground.
1. What is your position on the use of animals in research?

Student responses should be personal in nature, but a position should be clearly stated and should show some level of thought about the content delivered throughout the curriculum.

2. With which of the stakeholder viewpoints from this lesson do you most closely align? Why?

Student responses should identify one or more stakeholder viewpoints and describe why their personal position is aligned with the position of the stakeholder(s).

3. In what way does an ethical perspective best support your view?

Student responses should describe how an outcomes-based or duties-based ethical perspective supports their personal views about animal testing.

4. What scientific facts will you use to support your position?

Student responses should identify several scientific facts that clearly support their personal position.

5. What sort of personal actions can you take that support your position on this issue?

Student responses should identify at least one reasonable action that they could take personally. Students interested in the general welfare of animals could choose to eat less meat, use fewer animal products, volunteer at an animal shelter, or use what they’ve learned to support their current practices.

Scoring Rubric for Questions #1-5

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<tr>
<td>Provides thoughtful responses to all five questions. Shows a deep level of reasoning.</td>
<td>Provides thoughtful responses to only three or four of the questions.</td>
<td>Provides thoughtful responses to only one or two of the questions.</td>
<td>Does not provide a response.</td>
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<tr>
<td>-OR-</td>
<td>Most provided responses are brief and do not show depth in the level of reasoning.</td>
<td>-OR-</td>
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