

LP7 TEACHING PLAN

Cosmetic Product Testing on Animals

BioLEAP
BIOLOGY EDUCATION ADVANCEMENT PROGRAM





LEARNING PLAN OVERVIEW

Students will learn about the history of cosmetic development from a perspective of how advocacy, legal regulation, and scientific advancement impacted the use of animals in testing. They will gain an understanding of the types of cosmetic testing conducted on animals and how the 3Rs can be used to phase out such testing, leading to a market of "cruelty free" cosmetics.

ESTIMATED TOTAL TIME

100 minutes

PRE-REQUISITE SKILLS

LP1: Introduction to Animal Use in Science and the 3Rs

WHAT STUDENTS WILL LEARN

Competency:

- Examine the historical, regulatory, and legal trends of cosmetic product testing on animals

Learning Objectives:

- Describe the animals traditionally used in cosmetic testing and how they are used
- Identify alternatives to testing cosmetics on animals
- List common symbols and phrases that indicate products are not tested on animals
- Identify key laws and regulations related to animal testing in the U.S.
- Compare animal testing laws in the European Union and the U.S.
- Identify regulatory bodies that oversee cosmetic testing in the U.S.

Assessment: Cruelty Free Consumer Product Research

- Identify two cosmetic or household products that you use
- List marketing phrases or images used to note that the product is cruelty free (if applicable)
- Research each product to determine if it is tested on animals
- Describe the animal testing typically used on this type of product
- Find a similar product that is the opposite of your "tested on animals" result
- Compare the cost and consumer ratings of your product versus a similar product that is/is not tested on animals
- Share your thoughts on using a product option that is not tested on animals
- Present your findings in a chart, digital presentation, outline, or written summary

Written Argument: Letter to a Congressional Representative

- Identify your position for or against the passage of the Humane Cosmetics Act
- Support your position with at least three specific points regarding the impact of the act
- Identify how passage of this act would affect humans
- Identify how passage of this act would affect animals
- Identify how passage of this act applies the 3Rs

Linked External Standards:

NGSS

- HS-ETS1-3 Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts

CCSS- ELA

- CCSS.ELA-LITERACY.W.9-10.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence

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TEACHING PLAN

#	Learning Activities	Teaching Notes	Materials and Supplies
1	LEARNING PLAN OVERVIEW Review information detailed in the Student Learning Plan.	TIME: 5 minutes	Student Learning Plan Keywords: Draize Test
2	MOTIVATION ACTIVITY Watch the American Chamber of Horrors video.	TIME: 5 minutes ACTIVITY NOTES Play FDA video describing the incident that inspired the passage of the 1938 Food, Drug, and Cosmetic Act.	https://www.youtube.com/watch?v=Zu_erFKxHj8
3	COMPREHENSION ACTIVITY View the Draize Test Presentation. Draize tests are common toxicity tests used in cosmetic testing on animals.	TIME: 15 minutes ACTIVITY NOTES This presentation provides an overview of the Draize test, a common toxicity test used to determine if cosmetics are potential irritants for the eyes or skin.	LP7_3_TheDraizeTest
4	PRACTICE ACTIVITY Complete the Draize Alternatives worksheet. This worksheet gives examples of modern alternatives to the Draize test. Your role is to determine which of the 3 Rs are applied.	TIME: 10 minutes ACTIVITY NOTES Students are given several examples of modern alternatives to the Draize test and asked to identify which of the 3Rs are being addressed by each of the alternatives. This activity can be done as a large group or individually.	LP7_4_DraizeAlternatives_Worksheet LP7_4_DraizeAlternatives_AnswerKey
5	COMPREHENSION ACTIVITY View a presentation on advocacy, policy change and scientific advancement in the cosmetic industry.	TIME: 15 minutes ACTIVITY NOTES This presentation examines how advocacy, legal change, and scientific advancement have interacted in the past century, leading to changes in the cosmetic industry and animal testing.	LP7_5_AdvocacyPolicyChangeAndScientificAdvancementInTheCosmeticIndustry
6	APPLICATION ACTIVITY: Review the Humane Cosmetics Act of 2021. Draft a short persuasive letter to Congress arguing for or against the passage of this act. Use information from this module or outside research to create and support your argument.	TIME: 30 minutes ACTIVITY NOTES Provide the Letter to Congress Rubric. The focus on this assessment is to research and organize information into an argument. If time is limited, students could create an outline instead.	LP7_6_LetterToCongress_Worksheet LP7_6_LetterToCongress_Rubric

#	Learning Activities	Teaching Notes	Materials and Supplies
7	COMPREHENSION ACTIVITY View the Cruelty Free Cosmetics presentation to learn how you can spot cosmetics that are not tested on animals.	Time: 5 min ACTIVITY NOTES This presentation is a short history of Leaping Bunny and other humane cosmetic certifications.	LP7_7_CrueltyFreeCosmetics
8	APPLICATION ACTIVITY Explore ways to become a cruelty free consumer by completing the Cruelty Free Consumers Assessment activity.	TIME: 15 mins ACTIVITY NOTES Provide the Cruelty Free Consumers Rubric to the students. Students may be creative in how they share the information or consider making a chart or worksheet for them to complete. Adjust the number of products researched based on the time available for the assessment. In this activity they will compare household products or cosmetics to explore cruelty free alternatives and consider if the cruelty free alternative is just as economical or effective as one tested on animals.	LP7_8_CrueltyFreeConsumers_Rubric

The 3Rs and Alternatives to the Draize Test

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Name(s):_____

Date:_____

Since its development in 1944, the Draize irritancy test has gone through many procedural adjustments. In an effort to follow the 3Rs principles of humane research, many alternative methods have been discovered.

Go through the following list and determine which of the 3Rs (replacement, reduction, or refinement) is being addressed by each of the cosmetic testing models.

1. Instead of using one set of guinea pigs as a treatment group and a separate set of guinea pigs as a control group, researchers shave two patches of skin clean on each animal, applying a treatment solution to one patch and a control solution the other patch.

2. In vitro models grown from human skin cells are used to test the irritancy of a new hand lotion.

3. Rabbits are treated with anesthetic eye drops before a test sample of a new eyeliner is administered.

4. A chemical assay is used to identify substances in a new deodorant that may interact negatively with broken skin.

5. An animal previously used in a behavioral study is then used again by a researcher testing the corrosivity of a new acne cream.



The 3Rs and Alternatives to the Draize Test

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Answer Key

Since its development in 1944, the Draize irritancy test has gone through many procedural adjustments. In an effort to follow the 3Rs principles of humane research, many alternative methods have been discovered.

Go through the following list and determine which of the 3Rs (replacement, reduction, or refinement) is being addressed by each of the cosmetic testing models.

1. Instead of using one set of guinea pigs as a treatment group and a separate set of guinea pigs as a control group, researchers shave two patches of skin clean on each animal, applying a treatment solution to one patch and a control solution the other patch. **REDUCTION**

2. In vitro models grown from human skin cells are used to test the irritancy of a new hand lotion. **REPLACEMENT**

3. Rabbits are treated with anesthetic eye drops before a test sample of a new eyeliner is administered. **REFINEMENT**

4. A chemical assay is used to identify substances in a new deodorant that may interact negatively with broken skin. **REPLACEMENT**

5. An animal previously used in a behavioral study is then used again by a researcher testing the corrosivity of a new acne cream. **REDUCTION**



Letter to Congress

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Name(s): _____

Date: _____

By the end of 2022, ten U.S. States had passed laws banning the sale, with some exceptions, of cosmetics that have been newly tested on animals. With the introduction of the Federal Humane Cosmetics Act of 2021, the ban may become federal policy. Research the bill at **congress.gov** to learn more.

Using what you have learned about animal testing in the cosmetics industry, write a short letter to your congressional representative supporting or discouraging the passage of the Humane Cosmetics Act. Take into consideration the potential harms against humans, harms against animals, and the application of the 3Rs principles.



Written Argument: Letter to a Congressional Representative

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Directions
Draft a short letter to congress, using what you have learned in this module, to create an argument either for or against the passage of the Humane Cosmetics Act. Take into consideration harms against humans, harms against animals, and the implementation of the 3Rs.
Use the scoring guide below to guide your work.

Target Course Competencies
Examine the historical, regulatory, and legal trends of cosmetic product testing on animals

Rating Scale

Value	Description
3	Work fully meets or exceeds criterion; shows depth in insight and grasp of the learning, critical thinking skills, or attention to detail
2	Work meets criterion adequately
1	Work is incorrect or incomplete
0	Work is missing or does not meet criterion

Scoring Standard
You must achieve a rating of at least "2" on each criterion to demonstrate competence.

Scoring Guide

Criteria	Ratings
Identify your position for or against the passage of the Humane Cosmetics Act	3 2 1 0
Support your position with at least three specific points regarding the impact of the act	3 2 1 0
Identify how passage of this act would affect humans	3 2 1 0
Identify how passage of this act would affect animals	3 2 1 0
Identify how passage of this act applies the 3Rs	3 2 1 0
Include evidence from at least two credible sources	3 2 1 0
Cite your sources	3 2 1 0



Cruelty Free Consumers Research Activity

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Directions
In this research activity, you will determine if common household or cosmetic products are tested on animals and research alternative products available on the market.

Identify two cosmetics or household products and look at the packaging or product marketing to spot phrases or symbols that indicate if the product is cruelty free. Research each product using resources such as Leaping Bunny to determine if animal testing has been done to develop this product for consumers. If your product was tested on animals, find a similar product that has not been tested on animals. Or, if your product was not tested on animals, find a similar product that has been tested on animals. Compare costs and consumer reviews of each product. Create a final project showcasing your research of the four products.

Use the scoring guide below to guide your work.

Target Course Competencies
Examine the historical, regulatory, and legal trends of cosmetic product testing on animals

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Scoring Standard

You must achieve a rating of at least "2" on each criterion to demonstrate competence.

Scoring Guide

Criteria	Ratings
Identify two cosmetic or household products that you use	3 2 1 0
List marketing phrases or images used to note that a product is cruelty free (if applicable)	3 2 1 0
Research each product to determine if it is tested on animals	3 2 1 0
Describe the animal testing typically used on this type of product	3 2 1 0
Find a similar product that is the opposite of your "tested on animals" result *If your product is tested on animals, identify one that isn't and vice-versa	3 2 1 0
Compare the cost and consumer ratings of your product vs a similar product that is/is not tested on animals	3 2 1 0
Share your thoughts on using a product option that is not tested on animals	3 2 1 0
Present your findings in a chart, digital presentation, outline, or written summary	3 2 1 0
List website(s) used for research	3 2 1 0

