

STEWARDS OF OUR EARTH

6th-8th Grade Discussion Guide

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SCIENCE CATEGORIES

Life Science

TIMEFRAME

5-8 class periods

MATERIALS

Articles and protocols linked within the lesson, a platform for publishing a blog

KEYWORDS

Rehabilitate, Coexist, Sustainability, Wilderness, Malnutrition, Habitat Loss, Causal Relationship, Steward



LEARNING OBJECTIVES

- Understand and explain how individual actions can affect wildlife
- Explore changes individuals can make in their actions to positively affect wildlife

ACTIVITY SUMMARY

In this lesson plan students will consider how human actions can disrupt wildlife and what they can do to change their actions to have a positive impact on the earth. Students will start by generating a list of negative human impact using the Give One, Get One activity and then consider if these actions have a causal relationship to the earth.

Then students will read a short blog post with suggestions for how their school can take positive actions towards improving sustainability before shifting into positive individual actions they can take.

Finally students will each choose one positive action they can take and construct a blog post which will become part of a blog to be shared school-wide.

BACKGROUND INFORMATION

This episode focuses on how, due to human interference such as habitat loss, wild animals are harmed. When wild animals are harmed, one option for them is to go to the Pine View Wildlife Rehabilitation Education Center. The end goal of the center is to rehabilitate wild animals to the point where they can be returned to their point of origin or a new location with larger areas of wilderness. While the main goal is to keep wild animals wild, they do have educational ambassadors, wildlife that resides at the center due to injuries or behavior change.

One example of an ambassador is a Red Hawk named Peda who was illegally shot and had bbs lodged behind his skull leading to near complete blindness. This is an example of how humans can negatively affect wildlife through our habits and recreational activities. Even in urban settings, people should know what animals are coexisting with them and help to protect them. To help spread this message the center teamed up with the Quad corporation to present at local schools.

In the school program, the team uses the ambassador wildlife to teach students about sustainability. One of the first lessons students get is that wildlife are not pets. Many people think they are helping if they find a young animal and bring it inside, but these young animals imprint on humans, or think that humans are their parents. They need their true parents to learn how to hunt and find food. Also human food doesn't have the same nutritional value and can cause malnutrition and even death. The team also explores population decline due to habitat loss. One example of a species in decline is the Red Hawk. This species is building more and more nests on billboards and buildings. This is an example of a causal relationship where one even (habitat loss) directly impacts another (hawks nesting in urban areas).

Students finally learned how to be stewards, someone who cares for something; in this case the planet and wildlife. One way you can be a steward of the earth is planting trees. Other simple actions such as refraining from littering and using more reusable items are also examples of stewardship.

VOCABULARY

REHABILITATE: the treatment and care of injured, orphaned, or sick wild animals so that they can be released back to the wild.

WILDERNESS: a tract or region uncultivated and uninhabited by human beings.

COEXIST: helping people share the landscape with wildlife and using innovative tools to reduce the conflicts that often occur with wildlife in their natural habitats.

SUSTAINABILITY: avoidance of the depletion of natural resources in order to maintain an ecological balance.

MALNUTRITION: lack of proper nutrition, caused by not having enough to eat, not eating enough of the right things, or being unable to use the food that one does eat.

HABITAT LOSS: due to destruction, fragmentation, or degradation of habitat it may no longer be able to provide the food, water, cover, and places to raise young that wildlife need to survive.

CASUAL RELATIONSHIP: one event is the result of the occurrence of the other event.

STEWARD: the responsible use and protection of the natural environment through conservation and sustainable practices to enhance ecosystem resilience and human well-being



LEARNING PROCEDURE

Instructor states: "How do our actions as an individual impact the environment and wildlife?"

Inform students they will be engaging in the activity, GIVE ONE, GET ONE. Ask students to write down 3-5 ways human actions impact the environment and wildlife. After students have had an opportunity to generate their own lists, invite the group to get up and mingle with their peers or colleagues. After about 30 seconds, call out "GIVE ONE to a partner." Students form pairs and each "gives" one of his, her or their key learnings or important ideas about the topic to the other, so each person "gives one" and "gets one." Time may range from 1-3 minutes. Call out "MOVE ON" and participants mingle again. Repeat the sharing for as many ideas as people have to share.

Once students have completed the activity and returned to their seats. Review causal relationships using the Red Hawk example from the video clip. Remind students that sometimes the actions of humans change the behaviors of wildlife. Instruct students to partner up and read through their lists. Choose one of the actions on their list and think through what are some potential causal relationships between these actions and wildlife response. Share out responses and discuss further.

ACTIVITY 1:

Present students with the article, [10 Ways to Make Your School More Sustainable](#) and instruct them to read it using the protocol: [Connect, Extend, Challenge](#). Essentially, for this protocol students will connect to things they knew and agreed with, things that extended their thinking in new directions and things that were confusing or challenging. After completing the reading and reflecting on the protocol prompts via writing, ask students to pair-share their thinking with a partner.

Instructor states, "Now that we have looked at how we could be more sustainable as a school, let's consider what individual actions we can take in our lives to make a positive impact on the environment."

Instruct students that they will be engaging in collaborative brainstorming.

Form groups of three and assign roles within group.

Organizer: contributes ideas and sets parameters for group and keeps work session flowing.

Scribe: contributes ideas and writes down every idea so that all team members can see.

Presenter: contributes ideas and shares group list with whole class.

Direct the students to brainstorm for the allotted time. Bring class back together so that each presenter shares list. Lead class discussion with a focus on prioritizing top responses.

Teacher scribes list of actions either on the whiteboard or chart paper.

ACTIVITY 2:

Explain to students that as a class they will be creating a blog on the actions individuals can take to practice sustainability called Stewards of the Earth. Each student will be responsible for a separate post. The blog will be shared with classes throughout the school and one new post will be added each week.

Instruct students to choose one of the actions the class generated in the previous activity that they will commit to adopting. Students will commit to performing the new action and take notes on the process. Some questions they may answer may include:

- What behaviors did you need to change?
- Was it easy or difficult to make this change?
- How did you feel about the change?
- How do you think this changed behavior will positively affect the environment and wildlife?
- Did anyone else's behavior change based on your changed behavior (friends, family)?
- What else would you want someone thinking about changing their behavior to know?

Offer time in class to draft blogs and seek peer feedback to revise and edit.

Note if setting up a blog is outside of your expertise, you could compile the articles into a tip book and house it in the school library.

CONCLUSION:

Instructor states, "No matter where you live, your actions have an impact on the environment. So what can you do to make your impact on the world a positive one?"

Provide students with an index card and ask them to complete the following sentence stem as their exit slip.

SIMILE ME

"Changing your behavior to be a steward of the environment is like ____ because ____."

EXTENDING THE LESSON

- Create short videos that include how to or interviews that are connected to student blog posts.
- Research examples of causal relationships between humans and the environment/wildlife.
- Develop a gameshow, such as jeopardy, to review learning.
- Do a newscast.
- Create a top 10 list relevant to the topic.
- Create an episode of a reality show

RELATED LINKS

- Pine View Wildlife Rehabilitation and Education Center: Education page About Pine View: <https://pineviewwrc.org/about>
- Quad's website (generally shows what they do) <https://www.quad.com>

The following National Common Core Standards can be met teaching;

STEWARDS OF OUR EARTH

4TH GRADE

CCSS.ELA-LITERACY.RI.4.1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
CCSS.ELA-LITERACY.RI.4.2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.
CCSS.ELA-LITERACY.W.4.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
CCSS.ELA-LITERACY.W.4.2.A	Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
CCSS.ELA-LITERACY.W.4.2.B	Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
CCSS.ELA-LITERACY.W.4.2.C	Link ideas within categories of information using words and phrases (e.g., another, for example, also, because).
CCSS.ELA-LITERACY.W.4.2.D	Use precise language and domain-specific vocabulary to inform about or explain the topic.
CCSS.ELA-LITERACY.W.4.2.E	Provide a concluding statement or section related to the information or explanation presented.
CCSS.ELA-LITERACY.SL.4.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.4.1.A	Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
CCSS.ELA-LITERACY.SL.4.1.B	Follow agreed-upon rules for discussions and carry out assigned roles.
CCSS.ELA-LITERACY.SL.4.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

5TH GRADE

- CCSS.ELA-LITERACY.RI.5.1** Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
- CCSS.ELA-LITERACY.RI.5.2** Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.
- CCSS.ELA-LITERACY.W.5.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- CCSS.ELA-LITERACY.W.5.2.A** Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.5.2.B** Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- CCSS.ELA-LITERACY.W.5.2.C** Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).
- CCSS.ELA-LITERACY.W.5.2.D** Use precise language and domain-specific vocabulary to inform about or explain the topic.
- CCSS.ELA-LITERACY.W.5.2.E** Provide a concluding statement or section related to the information or explanation presented.
- CCSS.ELA-LITERACY.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
- CCSS.ELA-LITERACY.SL.5.1.A** Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- CCSS.ELA-LITERACY.SL.5.1.B** Follow agreed-upon rules for discussions and carry out assigned roles.

6TH GRADE

- CCSS.ELA-LITERACY.RI.6.1** Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- CCSS.ELA-LITERACY.RI.6.2** Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- CCSS.ELA-LITERACY.W.6.2** Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
- CCSS.ELA-LITERACY.W.6.2.A** Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
- CCSS.ELA-LITERACY.W.6.2.B** Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
- CCSS.ELA-LITERACY.W.6.2.C** Use appropriate transitions to clarify the relationships among ideas and concepts, texts, and issues, building on others' ideas and expressing their own clearly.
- CCSS.ELA-LITERACY.SL.8.1.A** Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
- CCSS.ELA-LITERACY.SL.8.1.B** Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

7th GRADE

CCSS.ELA-LITERACY.RI.7.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RI.7.2	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.
CCSS.ELA-LITERACY.W.7.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
CCSS.ELA-LITERACY.W.7.2.A	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
CCSS.ELA-LITERACY.W.7.2.B	Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
CCSS.ELA-LITERACY.W.7.2.C	Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
CCSS.ELA-LITERACY.W.7.2.D	Use precise language and domain-specific vocabulary to inform about or explain the topic.
CCSS.ELA-LITERACY.W.7.2.E	Establish and maintain a formal style.
CCSS.ELA-LITERACY.W.7.2.F	Provide a concluding statement or section that follows from and supports the information or explanation presented.
CCSS.ELA-LITERACY.W.7.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
CCSS.ELA-LITERACY.W.7.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
CCSS.ELA-LITERACY.SL.7.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.7.1.A	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
CCSS.ELA-LITERACY.SL.7.1.C	Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
CCSS.ELA-LITERACY.SL.7.1.D	Acknowledge new information expressed by others and, when warranted, modify their own views.

8th GRADE

CCSS.ELA-LITERACY.RI.8.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
CCSS.ELA-LITERACY.RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
CCSS.ELA-LITERACY.W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
CCSS.ELA-LITERACY.W.8.2.A	Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
CCSS.ELA-LITERACY.W.8.2.B	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
CCSS.ELA-LITERACY.W.8.2.C	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
CCSS.ELA-LITERACY.W.8.2.D	Use precise language and domain-specific vocabulary to inform about or explain the topic.
CCSS.ELA-LITERACY.W.8.2.E	Establish and maintain a formal style.
CCSS.ELA-LITERACY.W.8.2.F	Provide a concluding statement or section that follows from and supports the information or explanation presented.
CCSS.ELA-LITERACY.W.8.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
CCSS.ELA-LITERACY.W.8.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
CCSS.ELA-LITERACY.SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.SL.8.1.A	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

- CCSS.ELA-LITERACY.W.11-12.2.D** Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic.
- CCSS.ELA-LITERACY.W.11-12.2.E** Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- CCSS.ELA-LITERACY.W.11-12.2.F** Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).
- CCSS.ELA-LITERACY.W.11-12.4** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- CCSS.ELA-LITERACY.SL.11-12.1** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
- CCSS.ELA-LITERACY.SL.11-12.1.A** Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.
- CCSS.ELA-LITERACY.SL.11-12.1.B** Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.
- CCSS.ELA-LITERACY.SL.11-12.1.C** Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.
- CCSS.ELA-LITERACY.SL.11-12.1.D** Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

Science Standards

Grade 4

4-ESS3-2 Earth and Human Activity

Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.*

Performance Expectation

Grade:

3-5-4

Grade 5

4-ESS3-2 Earth and Human Activity

Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.*

Performance Expectation

Grade:

3-5-4

Grade 6-8

MS-ESS3-3 Earth and Human Activity

Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.*

Performance Expectation

Grade:

Middle School (6-8)