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Taking Action! Lesson

Grade Level: *Grades 4–8*

Time: *1–2 hours for both activities*

Materials

Brainstorm Conservation Behaviors List (here's a start):

- ❒ **Turn off lights when leaving the room**
- ❒ **Place anything that plugs in on a power strip to stop the flow of electricity when not in use**
- ❒ **Ride your bike, walk, or take the bus to school**
- ❒ **Use minimal water with dish washing, brushing teeth, showering, etc.**
- ❒ **Wear a sweater versus turning up the heat**

Action Plan PDF (one per student)

Key Words

Activism: Intentional efforts to promote environmental, social, or economic change.

Adapted or Adaptation: A physical attribute of an organism that helps it survive in its habitat.

Community: A social unit sharing common values and/or a group of organisms in a shared environment.

Conservation: Ethics that maintain the health of the natural world.

Empowerment: The strength of individuals and communities.

Ethic: Actions/behaviors on a day-to-day basis.

Leadership: To lead and support others in the accomplishment of a common task.

Mitigation: Action to decrease the intensity and potential effects of a warming world.

Stewardship: An ethic that embodies responsible planning and management of resources.

Sustainability: Long-term maintenance of responsibility within environmental, economic, and social dimensions.

Value: Something important to you personally.

Objective

Students will gain an understanding of the impact of greenhouse gases on the environment. With this knowledge, they will create an action plan of conservation behaviors to help them connect their choices with reducing greenhouse gases and reducing harm on the environment.

Background Information

The uncertainty in climate science doesn't revolve around the physics of a warming world; rather, it concerns the timing of future warming and possible effects.

A recent study by Dr. Steven C. Amstrup and a team of scientists revealed a linear relationship between sea-ice coverage and global temperatures. The higher temperatures rose, the more sea ice disappeared. And the more sea ice disappeared, the less polar bear habitat was pre- served. This means that saving polar bears and other arctic species is all about reducing temperature rise.

To preserve the climate on Earth in a state similar to the one in which humans have flourished, the science is clear that we must dramatically reduce our greenhouse gas rise. There are long- and short-term answers to how to mitigate CO2 levels in the atmosphere. Energy savings, as a class of conservation behaviors, are the most effective way for individuals to decrease their carbon footprints. Actions related to home efficiency and transportation can be accomplished by individuals at low—or sometimes no—cost and can save money at the same time.

Each action has a consequence—it either supports sustainability or is non-sustainable. Each decision counts and each can and bottle counts. Did you know that recycling one aluminum can saves enough energy to run a TV for three hours, the equivalent of a half-gallon of gasoline? Children have the power to make huge impacts; not only through their actions but through the influence they have on their families and friends. Actions set an example; they say far more than words. Every action plan is personal—it's what makes sense to the individual and what that individual is capable of accomplishing that makes the difference. And it all adds up. Start small. Watch it grow.

Teacher Prep Notes

Print off the Action Plan PDF (for individual or small group work). This lesson assumes an understanding of how humans impact the earth. The lesson examines conservation actions that can produce a sustainable lifestyle. Conservation behaviors are the first step in creating a stewardship ethic, where every decision is tested against core values.

Activity 1: What are Conservation Behaviors?

To Do

Complete worksheet and keep in Arctic Notebook to revisit and revise at the end of this lesson.

1. Review relevant vocabulary
2. Have students share their values (home, family, clean water, air, etc.).
3. Have students brainstorm day-to-day actions (ethics) related to their values.
4. In small groups, ask students to categorize different behaviors that are conservation ethics/actions or not. Have students explain their reasoning for categorization.
5. Have students present their lists and compare them with other groups. Depending upon the size of the class, you may do this activity two or three times combining groups, having them agree upon what is on the list or not until the whole class has an agreed-upon list.
6. Discussion: Why are identifying conservation behaviors important? What influence does choice have on living sustainably? What is a conservation or stewardship ethic?
7. 30-Day Action Challenge! Have students brainstorm a list of choices they can make at school, at home, and in their community. For ideas, visit the Polar Bears International website polarbearsinternational.org. Have students decide on one action to take as a class to be implemented for 30 days. At the end of the 30 days, have students reflect on the impact their action made and how the action could be continued.
8. Have students complete journal entries or write media pieces to share in the school newsletter or students' social media.
9. Calculate students' greenhouse gas savings of their behaviors at www.epa.gov.

Activity 2: Taking Action—Community Change

To Do

1. Lead a discussion about roles students can play in effecting change in their community.
   a. What does it take? Motivating others, confidence in themselves and their abilities to effect change, a plan of action, and a way to measure the outcomes.
   b. Who and what makes up a student's community? Is it a social definition or geographic definition?
   c. Does it matter which definition is used in order to implement an action plan?
2. Using the Action Plan Chart, have students create an Action Plan to be implemented for an extended period of time. Suggested themes for action projects include:
   a. Energy savings
   b. Closing the loop from recycling to buying recycling
   c. Reforesting an area
   d. Creating zero trash
3. To determine the effectiveness of Action Plans, you can discuss the process, measure greenhouse gas reduction, or look back after nine months to determine if behaviors have been sustained.

Additional Resources:

- **Project Polar Bear:** For teens ages 14-17 polarbearsinternational.org/programs/project-polar-bear
- **PBI Tundra Connections:** Real-time videoconferencing for school groups, zoos, green clubs, businesses and community leaders polarbearsinternational.org/programs/tundra-connections

Action Plan Template

Purpose: To create a "script" for your improvement effort and to support implementation of your plan.

Directions:
1. Using this form as a template, develop an Action Plan for each goal identified.
2. Distribute copies of each Action Plan to all group members.
3. Keep copies handy to review and update regularly. You may decide to adjust/develop new Action Plans as your inspiration changes.

Goal:

Results/Accomplishments:

Action Steps *What Will Be Done?*	**Responsibilities** *Who Will Do It?*	**Timeline** *By When? (Day/Month)*	**Resources** *A. Resources Available* *B. Resources Needed (financial, human, political & other)*	**Potential Barriers** *A. What individuals or organizations might resist?* *B. How?*	**Communications Plan** *Who is involved? What methods? How often?*
Step 1:			**A.** **B.**	**A.** **B.**	
Step 2:			**A.** **B.**	**A.** **B.**	
Step 3:			**A.** **B.**	**A.** **B.**	
Step 4:			**A.** **B.**	**A.** **B.**	
Step 5:			**A.** **B.**	**A.** **B.**	

Evidence Of Success *(How will you know that you are making progress? What are your benchmarks?)*

Evaluation Process *(How will you determine that your goal has been reached? What are your measures?)*