

## Video: Climate Change, Wildlife, and Wildlands

### Activity 3

Students respond to a video on the potential effects of a rapidly changing climate on wildlife and wetlands and prepare to research the risk/benefit trade-offs of various personal steps they can take to help reduce their impact on climate change.

### Objectives

Students will explain that the number and variety of organisms and populations are dependent on the resources and physical factors of their environment, explain how both organisms and ecosystems can change if the physical conditions of an ecosystem change, and infer that our atmosphere is dynamic and has patterns of weather systems.

### Standards

Students will develop basic explanations for natural phenomena, interest in global issues. Students will address standards 6.2, 6.3, 9.3, 9.7, 9.8, 9.9, scientific inquiry, and scientific literacy from Connecticut's Core Science Curriculum Framework.

### Time

45 minutes

### Materials

- The video, *Climate Change, Wildlife, and Wildlands*
- TV and VCR
- One copy per student of the handout *Consumers' Greenhouse Gas Emissions by Activity*
- Homework assignments from Activity 4, *Home Transportation Survey*, and *Personal Trip Tally Survey*

### Preparation

Review the two homework assignments in the section Activity 4: Give-Your-Car-A-Break, *Home Transportation Survey*, and *Personal Trip Tally Survey* and be prepared to start the students on these projects next.

### Method

Let the students know that they will be responsible for being able to discuss what they see and hear in the video, *Climate Change, Wildlife, And Wildlands*. Inform them that the video will show various ecosystems such as wetlands, coastal areas, prairies, or forests. It will inform them how climate change might affect weather patterns and the physical makeup of these ecosystems and what this might do to the animals and plants that live there.

Also ask them to pay attention to any causes or solutions to climate change that the video mentions. Show the video.

## **After the Video**

1. Use the following questions and activities for a follow-up discussion.

- How did what you saw and heard make you feel?
- Make a list on the board of the types of ecosystems, plants, and animals that climate change may affect. Take time to discuss how each of these may be affected.
- In what ways did the video describe changing weather patterns?
- How did it say humans were contributing to these problems?
- Did the video give you any ideas on what you can do to help?

2. Pass out and review the chart *Consumers' Greenhouse Gas Emissions by Activity*.

Tell students that, because the consumer choices we make for how we get around have the largest impact on the amount of greenhouse gases we emit, the class will focus on transportation solutions to climate change.

3. Divide the class into groups of two. Ask them to write down three to five things they think their families could do to reduce the amount of greenhouse gases they produce by their day-to-day transportation choices. Have the students think about which of the actions they thought of would produce the best results and then write down three to five things they need to know to confirm or counter their beliefs. Let the students know that this information will be used again after they conduct three transportation surveys and analyze the results.
4. Start the students on the Activity four homework assignments, *Home Transportation Survey* and *Personal Trip Tally Survey*.

## **Extension Activity**

Ask students to work in groups to conduct further research on the effects of climate change and to develop an exhibit to present what they find. You can have students go to the following kid-friendly sites or have them find their own information through a guided web search.

[www.epa.gov/globalwarming/kids/](http://www.epa.gov/globalwarming/kids/) - This is an excellent kids site with pages ranging from animations on global warming and the carbon cycle to information on the potential effects of climate change.

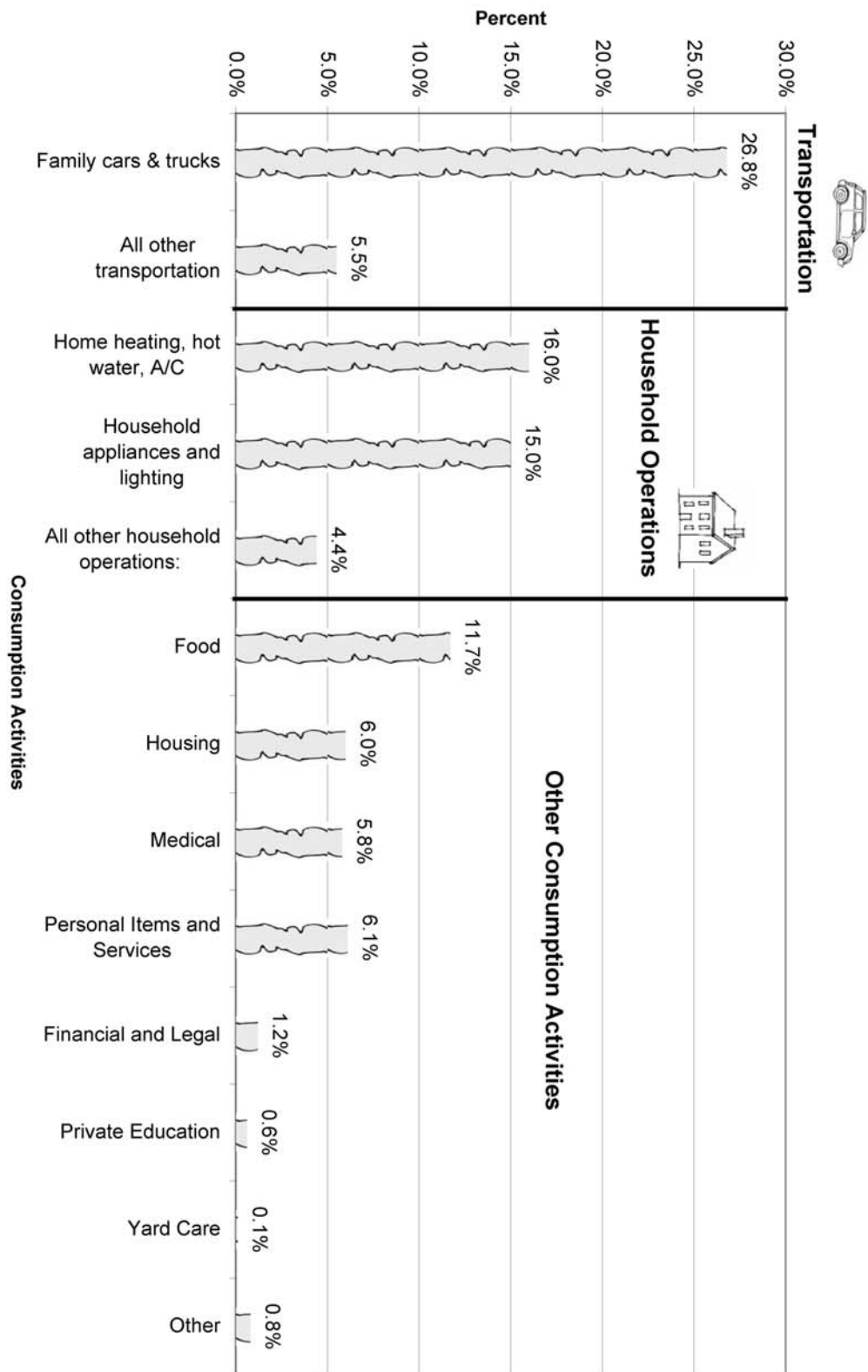
[www.arm.gov/docs/education/globwarm/globegin.html](http://www.arm.gov/docs/education/globwarm/globegin.html) - A multilingual kid-friendly site on global warming and it's potential effects.

<http://climate.nms.ac.uk/home.htm> - A rambling web site of information on climate change and rain forests presented on an easy reading level. It includes information on “what scientists see and do” so kids can get a taste of what it would be like to study these topics.

[www.doc.mmu.ac.uk/aric/eae/](http://www.doc.mmu.ac.uk/aric/eae/) - An extensive collection of information and links on climate change, greenhouse gases, global warming, and many other related topics such as volcanoes, ice ages, and ice cores. Information is presented on student and adult levels.

**Guided web search:** You can have students conduct their own web-research by entering into their favorite search engine the term “climate change” with any of the following: water, hydrology, ocean, ecosystems, wildlife, human, energy, health, marine, industry, or transportation.

## Consumers' Greenhouse Gas Emissions by Activity



Source: Michael Brower, PH.D., Warren Leon, PH.D., *The Consumer's Guide to Effective Environmental Choices*, (Union of Concerned Scientists, 1999)