



Forest Service and Climate Change Video (1 of 2)

Read over the following questions. Then watch the 13-minute video to learn more about what the U.S. Forest Service is doing to help our forests as we deal with a changing climate. Answer the questions as you watch the video.

Video Questions

1. What is the environmentally friendly machine that helps to trap carbon dioxide (CO₂)? *Trees*
2. What is the process by which trees remove CO₂ from the atmosphere? *Photosynthesis*
3. Forests cover almost 1/3 of the world's total land area and account for 90% of the annual interchange of carbon between the atmosphere and the land.
4. Name the three main roles of the U.S. Forest Service with regard to climate change:
 - 1) *Mitigation*
 - 2) *Adaptation*
 - 3) *Sustainable operations*

Video Break Discussion

5. What is mitigation? Describe one example of this strategy used by the U.S. Forest Service and explain how it mitigates against climate change.

Mitigation strategies help to reduce the concentration of CO₂ in the atmosphere. (Examples: conserving and managing forests, planting new forests, planting trees in urban areas, promoting the use of wood products, using wood in the construction of new buildings, using wood for ethanol instead of corn.)

Video Break Discussion

6. What is adaptation? Describe one example of this strategy and explain why it is an adaptation to future climate change.

Adaptation strategies help prepare forests for the effects of climate change. (Examples: conducting research to see how to make forests more resilient; managing watersheds to collect, filter, store, and release water under drought conditions; thinning overly dense forests.)
7. Finish the quote: "It's not only about changing light bulbs, it's about changing _____ *attitude* _____ and _____ *behavior* _____."



Forest Service and Climate Change Video (2 of 2)

After Video Discussion Questions

1. What is the difference between adaptation and mitigation?

Mitigation involves strategies to reduce CO₂ emissions and adaptation involves changing management strategies to deal with a changing climate from past emissions that are impacting us now.

2. What is one practice that the U.S. Forest Service does to operate sustainably that your school could also do?

Practices mentioned in the video include conserving energy and water, forming a green team, using green cleaning products, shifting to the use solar power when possible, and recycling.

3. The video mentions both cutting down trees for wood products and planting trees to create new forests as mitigation strategies. How can both actions reduce the amount of CO₂ in the atmosphere?

Standing forests store and sequester carbon (see Activity 8 for more details) and help remove CO₂ from the atmosphere. The manufacturing and use of wood products keep that sequestered carbon out of the atmosphere and produce much less carbon emissions when compared to the production and disposal of metal and plastic products (see Activity 12 for more details).