



High School Science Virtual Learning

Environmental Science

Habitat Loss

May 8, 2020



High School Environmental Science

Lesson: May 8, 2020

Objective/Learning Target:

Students will identify the effects of climate change on habitat loss.

1. How much faster is the current warming projected to occur than any change over the past 65 million years?
2. What is significant about the “hockey stick” graph?

1. The current warming is projected to occur at a rate 10 times faster than any change over the past 65 million years.
2. The “hockey stick” graph was the first comprehensive study combining data from many different archives of temperature including tree rings, ice cores, and coral reefs.



Lesson Activity:

Directions:

1. Watch the video and read the article linked below. While doing so, take careful notes of how climate change can impact habitat loss.
2. Make a chart of your choosing that details the different types of habitat loss and what can lead to them, as outlined in the video and article.
3. Create a PSA that demonstrates to the public how climate change can lead to habitat loss. Your PSA should be about 3-5 paragraphs long and use your notes from the chart to support itself.

Link(s):

[Video](#)

[Article](#)

[How to Write a PSA](#)



An Example Chart:

| Type of Habitat Loss | Causes for Habitat Loss |
|----------------------|-------------------------|
| | |
| | |
| | |



Practice

You will use the information from the activity on slide 5 to answer the following questions.



Practice Questions

1. How do warmer temperatures affect woods and forests?
2. How do warmer temperatures affect oceans?
3. How do warmer temperatures affect rivers, lakes, ponds, and wetlands?
4. How do warmer temperatures affect grasslands, agriculture, and open fields?
5. How do warmer temperatures affect beaches and barrier islands?



Answer Key

Once you have completed the practice questions check with the work.

1. Warmer temperatures and changing precipitation patterns are driving forests northward, to higher elevation, or to less optimal soil. Many tree species may lose their advantage over species found farther south.
2. Warmer temperatures, rising sea levels, and more acidic waters threaten our world's most prominent ecosystem.
3. Rising temperatures, changing seasonal precipitation, and stronger storms create conditions that can severely compromise the health of water bodies.
4. Higher carbon dioxide concentrations and longer growing seasons may be beneficial to some crops in the near future. On the other hand, increasing chances of summer drought, freeze damage to early buds, and faster spread of invasive species are among the challenges these landscapes may face.
5. Warmer water temperatures are disrupting food webs while sea level rise and stronger storms are flooding and eroding areas critical to people and wildlife.



More Practice

You will use the information from the activity on slide 5 to answer the following questions.



More Practice Questions

1. How much of the planet is covered by forests?
2. At the current rate of destruction, when will the earth's rainforest completely disappear?
3. What percentage of greenhouse gases come from forestry and agriculture?
4. What two ways does deforestation impact the amount of greenhouse gases in the environment?
5. What percentage of land dwelling animals have a habitat in the forests?



Answer Key

Once you have completed the practice questions check with the work.

1. 30% of the world is covered in forests.
2. At the current rate of destruction the Earth's rainforest will completely disappear within 100 years.
3. 24% of global greenhouse gas emissions come from forestry and agriculture.
4. When trees are cut down they release the carbon dioxide into the atmosphere that they have been storing and the trees can no longer absorb carbon dioxide out of the atmosphere.
5. Over 80% of the plants and animals that live on land have a habitat in the rainforests.



Additional Resources

Want more information about habitat loss, the different types, and what causes them? Then here is an excellent article for you: [Types and Causes of Habitat Loss](#)

This article does an excellent job at explaining the impacts of habitat loss: [Impacts of Habitat Loss](#)

Here is more information about the impacts of habitat loss: [Impacts on the Globe with Habitat Destruction](#)