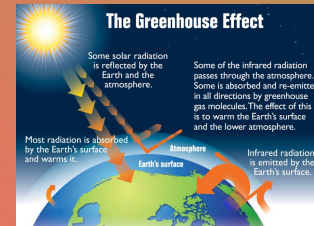


Biodiversity and Climate Change – Understanding the Connection

- What is Climate Change?
- How Climate Change Affects Biodiversity
- Habitat Loss Due to Climate Change
- Case Study: Coral Reef Bleaching
- Changing Species Habitats
- Climate Change and Biodiversity Loss – Vulnerable, Threatened, Endangered, Extinct
- Impacts of Biodiversity Loss – Food webs, Reduced ecosystem services, Economic impacts, Cultural impacts
- Case Study: Biodiversity Loss in the Amazon Rainforest
- Global Consequences
- What We Can Do



Preview File

Please enjoy this preview of your Student Version of the presentation. Please note within this sample file:

- Some slides appear blank because they have been removed
- Student versions have portions of the text removed which is given in the teacher version and appear as _____ which the students are to fill in
- Other slides may have on them, this represents writing that has been removed on this sample

The paid full version of your resource includes both Google Slides and PowerPoint and is
Google Classroom Ready



Learning Goals

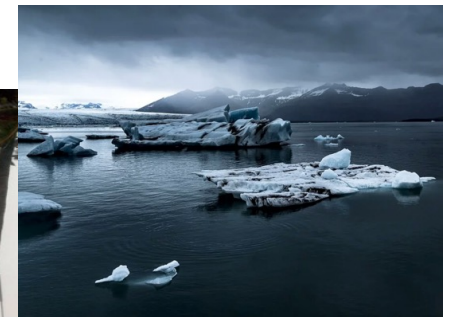
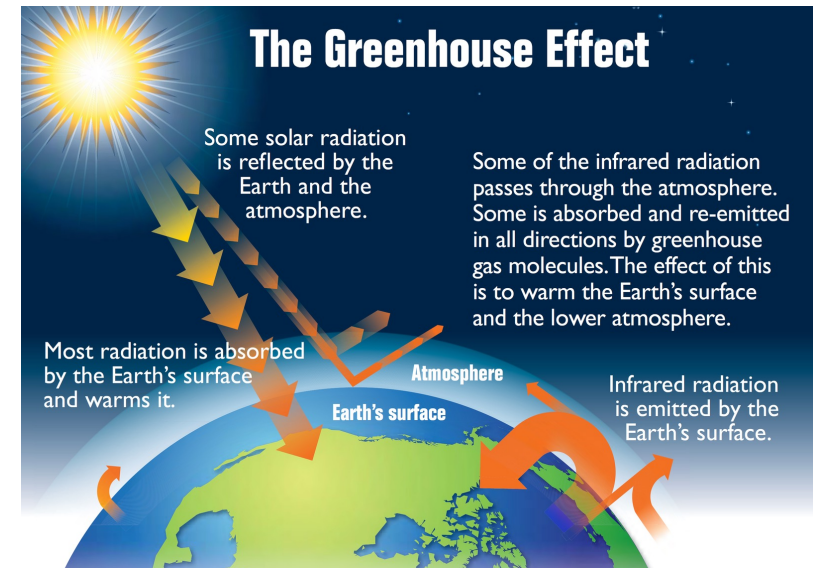
By the end of this lesson, students will be able to:

1. Explain what climate change is.
2. Describe how climate change affects biodiversity.
3. Identify specific impacts of biodiversity loss due to climate change.
4. Understand the broader consequences of this loss.

What is Climate Change?

Definition: _____

- Key factors:
 - Increased greenhouse gases like CO₂
 - Rising global temperatures
 - Changing precipitation patterns
 - Extreme weather events



How Does Climate Change Affect Biodiversity?

- Alters habitats
 - Changes where animals can live
- ---
- Disrupts life cycles and behaviors
- Increases extinction risks



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Case Study: Coral Reef Bleaching



Bleached
Coral

Case Study: Coral Reef Bleaching

- When water is too warm, corals get rid of the algae

- Coral bleaching is happening because of climate change (warmer waters) and is very serious



Changing Species Habitats

- _____



- Many species of bear, squirrels, and many others are moving from their current habitats
- They move to find shelter and food



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Climate Change Leads to Biodiversity Loss

Biodiversity loss can be the lowering of numbers of species or the elimination of the species completely.

Biodiversity loss can be categorized into four main groups.

1. _____
2. _____
3. _____
4. _____



Vulnerable



E.g. Grey Fox

Threatened

Any species that is likely to become endangered if the factors that make it vulnerable, like climate change, are not reversed.



E.g. Peregrine Falcon

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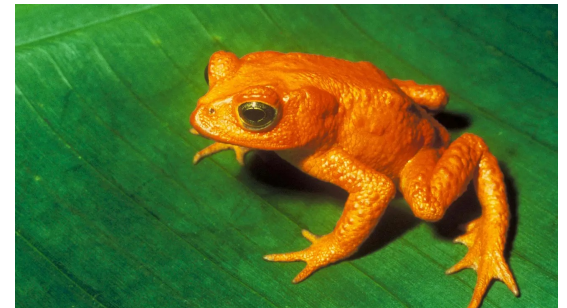
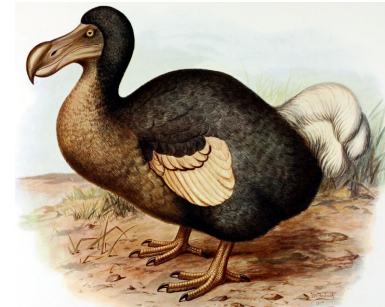
Case Study: Manatees

Due to boat collisions, getting tangled in fishing nets, and habitat loss, these gentle creatures have become endangered.



Species Extinction

Although species extinction is a natural process that happens over thousands and millions of years, _____



Species Extinction

Definition: _____

- Some biologists estimate that 35% of animals and plants could become extinct in the wild by 2050 due to global climate change
- Many species already have gone extinct due to climate change including:
 - The Golden Toad
 - The Bramble Cay Melomys



The Golden Toad

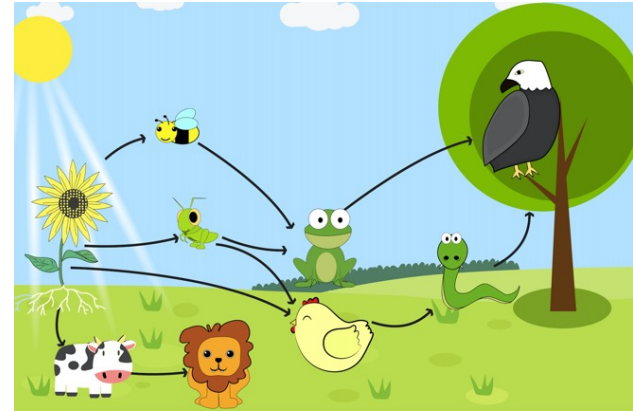


The Bramble Cay Melomys

Impacts of Biodiversity Loss

1. _____
2. Reduced Ecosystem services.

- Pollination
- Water purification
- _____



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Impacts of Biodiversity Loss

4. Cultural impacts:

Many cultures rely upon various parts of the forest and wildlife for



Case Study: Biodiversity Loss in the Amazon Rainforest

- Causes: Deforestation, climate change
- Impacts:
 - _____
 - _____
 - _____



Global Consequences

- Reduced
- Potential for ecological collapse
- _____
- _____
 - Example:



What Can We Do?

- Reduce your carbon footprint
 - _____
 - Example – bike to school instead of driving
- Support conservation efforts
- Choose sustainable and reusable products
- Educate others about biodiversity and climate change



Discussion Questions

Individually or in pairs, answer the following questions.

1. How might
2. Can you think of any species that might benefit from climate change? Why?
3. How

Review

- Climate change significantly threatens biodiversity
- Biodiversity loss has far-reaching impacts on ecosystems and humans
- Protecting biodiversity is crucial for maintaining Earth's balance
- Individual actions can make a difference