

Unit 4: Climate Change

1. Name **4 types of clues** can be determined from **ice cores**.
2. What **information** can be found in tiny **air bubbles** trapped in ice?
3. What **information** can you conclude if
 - a) more oxygen-16 in oceans, less in polar ice
 - b) more oxygen-18 in oceans, less found in ice sheets.
3. Based of the number of tree rings you observed, how many **years of growth** do you see?
4. What information can you conclude from
 - a) wide rings
 - b) thin rings
 - c) light rings
 - d) dark rings
5. What **information** would you conclude if fossils of creatures that live in tropical areas are found in colder regions?
6. What **information** would you conclude if **thick deposits of coarse, lighter sediments** was found in “valves”?



7. What cause the **rising of sea levels**? Name **2 causes**.

8. List **6 evidence** and **impacts** of climate change today.

Evidence	Impacts

9. Explain the **the three natural factors** of climate change that relate to the **Sun and Earth**.

Natural Factor	Explanation
Change in Solar Activity	
Earth's Tilt	
Latitude	

10. Name and explain **3 factors (natural causes)** suggested by Milutin Milankovitch to explain the **cycles of ice ages**.

Natural Factor	Explanation

11. Explain how the following **factors (natural causes)** affects climate:

Natural Factor	Explanation
Natural Greenhouse Effect	
Convection Currents	
Ocean Currents	
Precipitation Patterns	
Heat Capacity of Water	
Albedo	
Movement of Tectonic Plate	
Volcanic Eruptions	

12. Why do lakes and oceans act as **heat reservoirs (heat sink)**?

13. Which of the following surfaces would have the **highest albedo** - ice and snow OR dark soil?

14. Write the definitions for the following key terms:

Key Term	Definition
Heat capacity	
Heat sink	
Carbon sink	
Carbon source	
Albedo	
Greenhouse effect	
Anthropogenic	
Eccentricity	
Precession	
Paleoclimatology	

15. Name **2 anthropogenic sources** of:

- a) carbon dioxide
- b) methane
- c) nitrous oxide
- d) Chlorofluorocarbons (CFCs)

12. Name the gas that is produced **ONLY** by **anthropogenic sources**. _____

13. List **5 things** we can do to reduce our daily greenhouse gas emission.