**Guided Notes: Climate Change Tests**

Scientists use various \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ to measure climate changes throughout Earth's history and in the present day.

**Key Concepts:**

• Global warming is defined as the gradual increase in the overall \_\_\_\_\_\_\_\_\_\_\_\_ of Earth's atmosphere.

• Climate change refers to long-term changes in \_\_\_\_\_\_\_\_\_\_\_\_ and normal \_\_\_\_\_\_\_\_\_\_\_\_ patterns in a place.

• Measurements used to study climate change include:

 1. \_\_\_\_\_\_\_\_\_\_\_\_ dioxide levels

 2. Air and ocean \_\_\_\_\_\_\_\_\_\_\_\_

 3. Amount of \_\_\_\_\_\_\_\_\_\_\_\_ ice at the poles

 4. \_\_\_\_\_\_\_\_\_\_\_\_ levels

 5. \_\_\_\_\_\_\_\_\_\_\_\_ size

• Tools for studying past climates:

 1. \_\_\_\_\_\_\_\_\_\_\_\_ rings

 2. Ice \_\_\_\_\_\_\_\_\_\_\_\_

 3. Fossilized \_\_\_\_\_\_\_\_\_\_\_\_ shells

 4. Fossilized \_\_\_\_\_\_\_\_\_\_\_\_

• Modern tools for measuring climate change:

 1. \_\_\_\_\_\_\_\_\_\_\_\_: measure ocean temperature and salinity

 2. \_\_\_\_\_\_\_\_\_\_\_\_: provide images of snow cover, sea ice, and glaciers

 3. \_\_\_\_\_\_\_\_\_\_\_\_: measure sea level

 4. \_\_\_\_\_\_\_\_\_\_\_\_ stations: measure air temperature and precipitation

• \_\_\_\_\_\_\_\_\_\_\_\_ is the amount of salt dissolved in a body of water.

• Glacial retreat refers to the \_\_\_\_\_\_\_\_\_\_\_\_ of the end of a glacier so it doesn't extend as far down valley.

**Real World Examples:**

1. Tree rings: Wider rings indicate \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ weather conditions.

2. Decreasing snowpack in mountains: An observable indicator of climate change noticed by people over time.

**Word Bank:**

scientific tests

tools

temperature

temperature

weather

carbon

temperature

sea

sea

glacier

tree

cores

foraminifera

pollen

argo floats

satellites

tide gauges

weather

salinity

moving up

warm

wet