1. As carbon dioxide levels in the atmosphere rise:
* Temperature of Earth rises
* the rate of photosynthesis in plants increases
* more carbon dioxide is therefore removed from the atmosphere by plants, reducing the greenhouse effect and reducing global temperatures
1. As Earth warms:
* Ice cover melts, exposing soil or water
* Albedo *(Reflectivity of sunlight)* decreases
* More energy is absorbed by Earth’s surface
* Global temperature rises
* More ice melts
1. As Earth warms, upper layers of permafrost melt, producing waterlogged soil above frozen ground:
* Methane gas is released in anoxic environment
* Greenhouse effect is enhanced
* Earth warms, melting more permafrost
1. As Earth warms, increased evaporation:
* Produces more clouds
* Clouds increase albedo, reflecting more light away from Earth
* Temperature falls
* Rates of evaporation fall
1. As Earth warms, organic matter in soil is decomposed faster:
* More carbon dioxide is released
* Enhanced greenhouse effect occurs
* Earth warms further
* Rates of decomposition increase
1. As Earth warms, evaporation increases:
* Snowfall at high latitudes increases
* Icecaps enlarge
* More energy is reflected by increased albedo of ice cover
* Earth cools
* Rates of evaporation fall
1. As Earth warms, polar icecaps melt releasing large numbers of icebergs into oceans:
* Warm ocean currents such as Gulf stream are disrupted by additional fresh water input into ocean
* Reduced transfer of energy to poles reduces temperature at high latitudes
* Icesheets reform and icebergs retreat
* Warm currents are re-established
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