GREENHOUSE EFFECT and GLOBAL WARMING Review for final

1. Burning anything creates CO₂. Why should we avoid making more CO₂? (It is NOT pollution, it does NOT make ozone holes, it does NOT cause breathing problems, it does NOT make living things die)

IT CREATES THE GREENHOUSE EFFECT WHICH LEADS TO GLOBAL WARMING

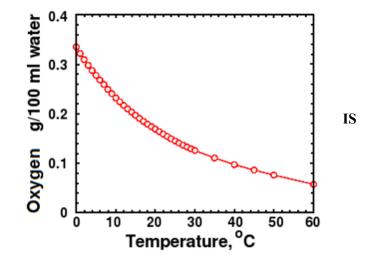
- 2. What are the bad things that happen on Earth that come from the greenhouse effect?
- **1 MORE DROUGHTS**
- **2 MORE WILDFIRES**
- **3 BIGGER HURRICANES/ STORMS**
- **4 LESS OCEAN LIFE/ EXTINCTIONS**
- **5 MORE FLOODING**

6 MELT POLAR ICE CAPS

If global warming continues, ocean water temperature will increase. If the temperature increases, dissolved oxygen levels will decrease. Plankton is the basis for the ocean food chain. There are 2 types: phytoplankton which make their food by photosynthesis (plant like) and zooplankton which get their food by consuming (animal like).

- 3. How is oxygen affected by temperature? LESS CAN DISSOLVE IN WATER
- 4. How will ocean populations change if global warming continues?

LESS OF EVERYTHING BECAUSE PLANKTON WILL DECREASE GREATLY AND PLANKTON THE BASE OF THE FOOD CHAIN



Less

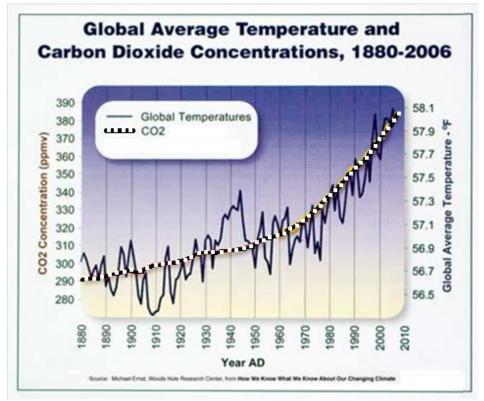
More

acidic

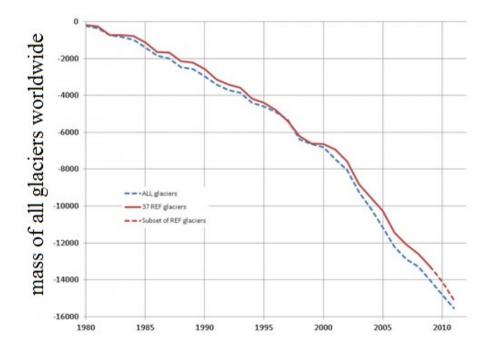
OCEAN ACIDIFICATION

- Atmospheric acidic carbon dioxide C02 9 ٩ 2 3 Dissolved Hydrogen Carbonic acid carbon dioxide စ ionš Water н+ C02 H_2CO_3 H_20 ଭ Bicarbonate 6 ions Carbonate D 6 HC03-1 G ions 9 C03-2 **ر**ان 9 Deformed shells Source: University of Maryland
- 5. What is the major problem caused by acidification of the oceans?

CREATURES MAKE **DEFORMED SHELLS.**



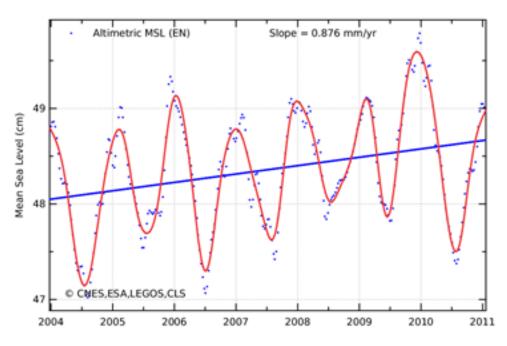
6. How is the global temperature related to carbon dioxide levels?
AS CARBON DIOXIDE INCREASES, TEMPERATURES INCREASE
7. Why does the graph above cause concern for climate scientists?
INCREASED TEMPERATURE LEADS TO GLOBAL WARMING



8. What is happening to glaciers?

THEYARE MELTING

9. What is causing the line to drop in the graph above? GREENHOUSE EFFECT/ TOO MUCH CO2/ GLOBAL WARMING



10. Why does the sea level go up and down every year? IN SUMMER WATER EXPANDS MAKING IT LOOK HIGHER

11. What is the general trend for the sea level?

GOING UP

12. What do we run the risk of by allowing the sea level to rise? MASSIVE FLOODS ON THE COAST

- 13. Which global warming effects will hurt our economy?
- a. increased floods. c. increased wildfires
- b. increased droughts d. all of the above

D

14. What is the main reason why global warming creates droughts?

- a. warmer atmosphere increases precipitation
- b. warmer atmosphere increases evaporation
- c. warmer atmosphere increases condensation
- d. warmer atmosphere increases groundwater

B

- 15. Why does global warming create more fires?
 - a. The ground is wet due to more precipitation
 - b. the ground is dry due to more precipitation
 - c. the ground is wet due to more condensation
 - d. the ground is dry due to more evaporation

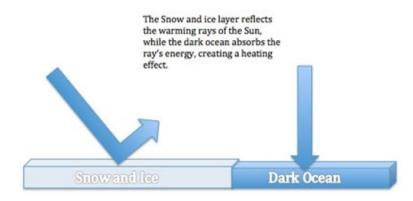
D

- 16. Why do more forest fires lead to even MORE global warming?
 - a. heat from the fire makes the atmosphere colder
 - b. trees give off CO2
 - c. trees absorb oxygen
 - d. burned trees release CO2



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Once ice begins to melt and uncover land or water, more solar radiation will be absorbed by the surface, raising temperatures and causing even more ice to melt. This positive feedback might act more quickly over the oceans than over land because sea ice can melt faster than large continental ice sheets.



17. What is global warming doing to the ice caps?

MELTING THEM

18. Why does melting the polar ice make the greenhouse effect worse?

- a. less white ice means more sun rays soak in at the poles
- b. more dark ocean means less sun rays soak in
- c. less ice=less polar bears= more fish= warmer water= more global warming
- d. the polar ice caps have nothing to do with global warming
- A
- 19. Which is a way to reduce the greenhouse effect?
- a. plant more forests c. reduce greenhouse gas production
- b. use less fossil fuels d. all of the above
- D