

On your own sheet of paper, write down the question and correct answers:

1. What effect do carbon dioxide and methane have on Earth's temperature?
 - a. They trap heat in the atmosphere.
 - b. They release heat from the atmosphere.
 - c. They block heat from entering the ocean.
 - d. They block heat from reaching Earth's surface.
2. How would the temperature on Earth change without the greenhouse effect?
 - a. The temperature at the equator would be warmer.
 - b. The temperature would stay the same.
 - c. It would be 30° C warmer.
 - d. It would be 30° C cooler.
3. What causes solar radiation to strike different parts of Earth's surface at an angle that varies throughout the year?
 - a. Earth's tilted axis.
 - b. Earth's erratic orbit.
 - c. The moon's orbit around the Earth
 - d. Solar flares on the sun's surface.
4. In which location is the sun almost directly overhead at noon all year?
 - a. The equator
 - b. The South Pole
 - c. The North Pole
 - d. North America

Re-create the cart on your own sheet of paper and fill it in:

Main Climate Zones

Climate Zone	Location	Climate Characteristics
	Areas around North and South poles	
	Between the polar zones and the tropics	
	Near the equator	

Write the statements on your own sheet of paper. If already true, write true beside the statement. If false, change the underlined word to make the statement true.

5. Patterns of heating and cooling result in ocean currents. _____
6. Warm air is less dense than cool air. _____
7. Surface water moved by winds results in ocean currents. _____
8. Deep ocean currents are caused by the sinking of warm water near the poles. _____

When complete with all of the above, re-create Figure 4-1 THE GREENHOUSE EFFECT from page 97 in your books on your own sheet of paper.