



Name _____ Class _____ Date _____

1 The **energy** from the sun is transferred to the earth as _____.

- A balls of heat
- B solar wind
- C electromagnetic radiation
- D the northern lights



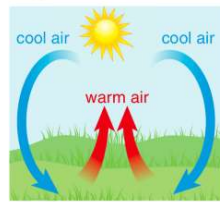
2 Some heat in the atmosphere is transferred when two objects touch each other. This heat always **moves** from the **warmer object to the colder object** until both objects are **equal** in temperature. **The transfer of heat energy from one object to another by physical contact is called _____.**

- A convection
- B conduction
- C convention
- D contrition



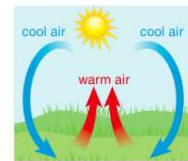
3 Most of the heat energy that is in the atmosphere is transferred by **convection**, which is _____.

- A moving currents of air
- B precipitation falling to earth
- C evaporation of water into gases
- D solid objects in direct contact



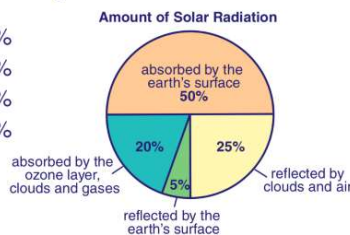
4 As the **air** at the surface of the earth is **warmed**, in which **direction** does it move?

- A horizontally across the surface and is distributed evenly
- B around because of wind that blows hot air
- C up because it is less dense and eventually cools as it rises
- D up because it is more dense and eventually cools as it rises



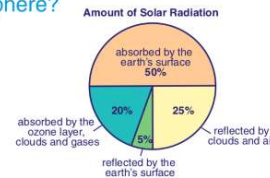
5 How much of the **radiation** from the sun is **absorbed** by the earth's surface?

- A 10%
- B 25%
- C 50%
- D 75%



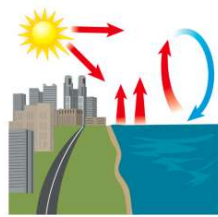
6 Not all the radiation produced by the sun actually enters the atmosphere and arrives at earth's surface. **How much is absorbed by the ozone layer, clouds, and the gases in the atmosphere?**

- A 5%
- B 20%
- C 50%
- D 75%



7 What are the **three** most **important** processes responsible for **heating** the earth's atmosphere?

- A radiation, conduction, and nuclear fission
- B radiation, convection, and burning fossil fuels
- C convection, burning fossil fuels, and conduction
- D radiation, convection, and conduction



8 In cold climates during winter, a house **cools down** as _____.

- A hot air inside the house is conducted to the cold air outside the house
- B cold air outside the house is conducted to the hot air inside the house
- C the house gives off electromagnetic radiation
- D the sun's energy is reflected off the house



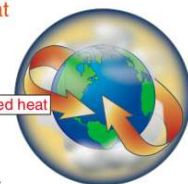
9 The earth's surface absorbs the sun's energy and heats up. At night, the warm earth gives off heat into the atmosphere which escapes into space. However, the accumulation of carbon dioxide and other gases in the atmosphere **trap heat** nearer the earth. Scientists call this process _____.

- A the oven effect
- B the greenhouse effect
- C polar ice melting
- D global warming



10 Some scientists have studied the earth's present climate and have concluded that the accumulation of carbon dioxide from the burning of fossil fuels has **considerably increased** greenhouse gases. **If this increase continues, what outcome might be expected?**

- A rising average global temperatures
- B melting of polar ice caps
- C rising sea levels
- D all of the above might occur





ANSWER KEY

The **energy** from the sun is transferred to the earth as _____.

- A balls of heat
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(c)

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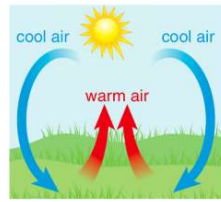
- A convection
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(b)

Most of the heat energy that is in the atmosphere is transferred by **convection**, which is _____.

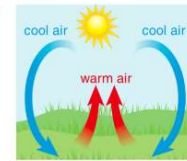
- A moving currents of air
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(a)

As the **air** at the surface of the earth is **warmed**, in which **direction** does it move?

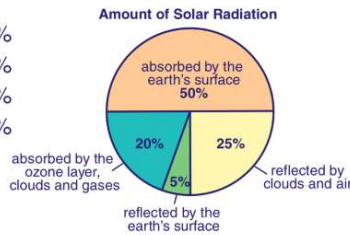
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(c)

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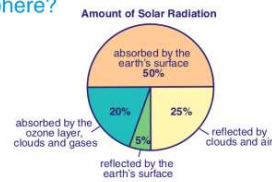
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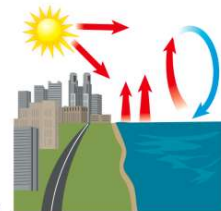
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(b)

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(d)

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- D the sun's energy is reflected off the house



(a)

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(b)

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(d)