

Chapter 4 Study guide

- _____ is energy transferred in rays or waves. **Radiation**
- _____ is energy transferred by the flow of heated material. **Convection**
- Describe how sea and land breezes are formed.
The land heats and cools more quickly than the water
- As you move away from Earth's surface, what happens with the atmosphere?
It becomes thinner/atmospheric pressure decreases
- What is the source of all energy in our atmosphere?
The Sun
- There is little wind in the doldrums because _____.
The air cools and sinks and creates a zone of high pressure.
- The _____ is caused by Earth's rotation.
The Coriolis effect
- When molecules bump into one another and transfer energy, what type of energy is that called?
Conduction
- What is the closest layer of atmosphere to the Earth's surface?
Troposphere
- _____ are responsible for most of the weather across the US and Canada.
Prevailing Westerlies
- The air above the *north pole/south pole/equator/arctic circle* has low density and low pressure so it rises.
Equator
- True or False: When Earth receives energy from the sun,
 - Some energy is reflected back into space
 - Some energy is absorbed by the atmosphere
 - Some energy is absorbed by land and water on Earth**ALL ARE TRUE**
- When cool dense air flows inland (from sea to land), what type of breeze is that?
Sea Breeze
- Where is the Ozone Layer found?
Stratosphere
- What do you think would happen if the ozone layer disappeared? Life on Earth would be exposed to *more/less/the same amount* of ultraviolet radiation?
More
- True or False: Particulate matter is a mixture of dust, acids, and other chemicals.
True
- _____ are windless zones.
Doldrums
- What angle does the sunlight's ray strike Earth at the equator?
90 degrees
- Not all pollution is outside. Sometimes pollution indoors can be as much as ___ times the pollution outside.
50 times
- If a pot of water were heated from the top it would _____.
 - Boil faster as the heat would radiate down to the surrounding water faster.
 - Boil slower as the heated water would stay on top and not warm the water below.
 - Boil at the same rate as a pot of water boiled from the bottom because the water is constantly moving past the heat source.
 - Boil at the same rate as a pot of water boiled from the bottom because the location of the heat does not change the boiling point of water.

Answer: B