

NOTES- CONVECTION CURRENTS

TOPIC 4 (ENERGY IN THE ATMOSPHERE & OCEAN)

Convection Currents

_____ energy transfer between two parts of a _____ of different temperatures.

When _____ rise and _____ sink.

Occurs in

Earth's Mantle

_____ flow within the mantle.

Cause _____ to move

Less dense hot magma moves _____.

More dense cooler magma moves _____.

Earth's Oceans

_____ flow within the oceans.

Temperature from the _____ and salinity affects the density of water creating global currents.

_____ water sinks. _____ water rises.

Earth's Atmosphere

_____ radiation heats the Earth's surface. It is transferred by _____ . Air touching the Earth's surface becomes less dense and _____ .

Air _____ as it gets higher into the atmosphere. Cool air becomes more _____ and sinks. _____ is created as the cool air moves in to replace the _____ air.

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High Pressure (H)

Cool air masses become more _____ and sink.

Low Pressure (L)

Warm air masses become less _____ and rise.

Wind

_____ difference between high pressure areas and low pressure surrounding it cause _____ to form.

Wind flows from _____ to _____ pressure.

Earth's atmospheric convection currents cause

Local Breezes

_____ breeze - Wind that flows from the cool air over water (H)

_____ toward the warm air over the land (L)

_____. During the _____ solar radiation heats the land more quickly than _____.

_____ breeze - breeze that flows from the cool air above land (H)

_____ toward the warmer air above the

Water (L) _____. Caused by _____

cooling more quickly than water in the evening.

Valley breeze - mountain side is warmer than the valley in the _____. Breeze blows from the valley floor to the top of the mountain.

_____ breeze - mountain sides cool quickly in the _____. Breeze blows from the mountain side to the valley floor.