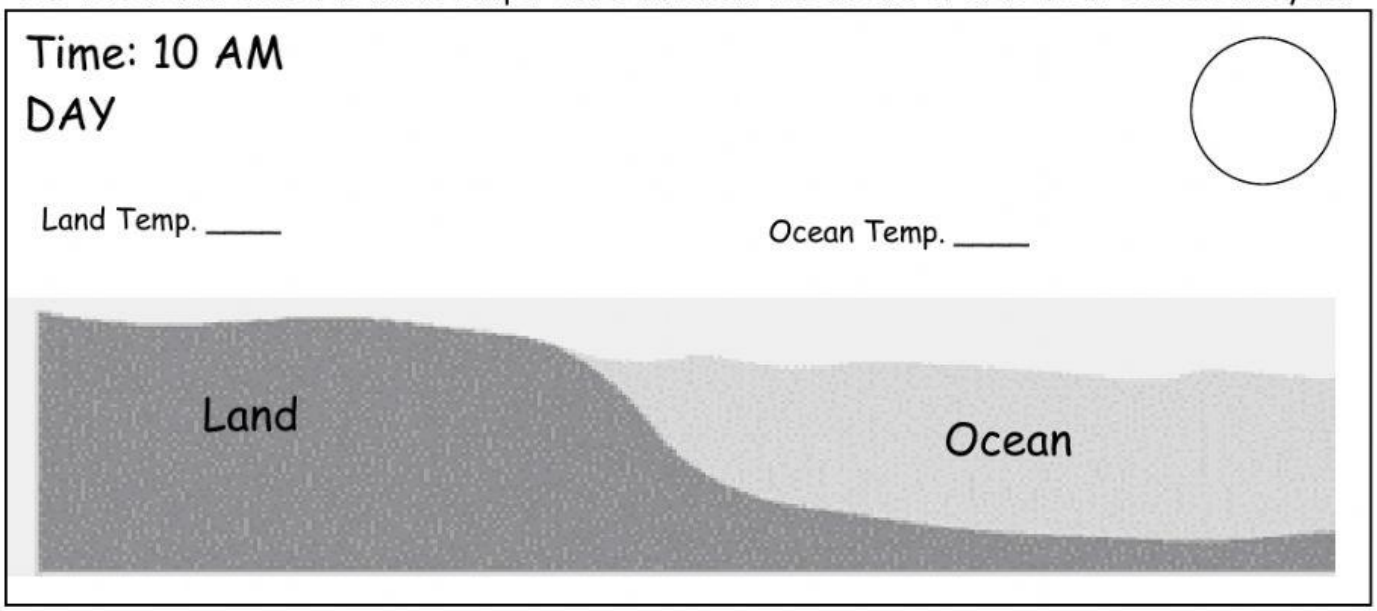
Sea Breeze/Land Breeze Diagram **Name:_____**

Directions: Go to the website listed.
http://oceanservice.noaa.gov/education/pd/oceans_weather_climate/media/sea_and_land_breeze.swf Use the diagram to fill in the blanks below.

1. Wind flows from _____ (high or low) pressure to _____ pressure. (high or low)
2. Pressure differences occur when earth's surface is heated _____ (evenly or unevenly) by the sun. (Hint…land heats up faster than water and cools faster too.)

Use the animation to fill in the temperature and draw the arrows of in air flow/convection cycle.



3. Is the land or ocean hotter? _____. That means the air over the land will _____(rise or sink).
4. Is the land or ocean colder? _____. That means the air over the ocean will _____ (rise or sink).

Use the words from the word bank to make the paragraph complete.

- Warmer
- Sun
- Warmer
- Colder
- Sea
- Rising
- Sinking

High Low

During the day, when the _____ comes up. The land gets _____ than the Ocean. The air above the land gets ____ too and is less dense, so it rises. Meanwhile, the air over the ocean is _____/more dense and falls. The falling dense air creates _____ pressure over the ocean & the rising thin air creates _____ pressure over the land. A "sea breeze" develops from movement of hot air _____ and cold air _____. A sea breeze is when the wind we feel comes from the _____.

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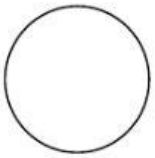
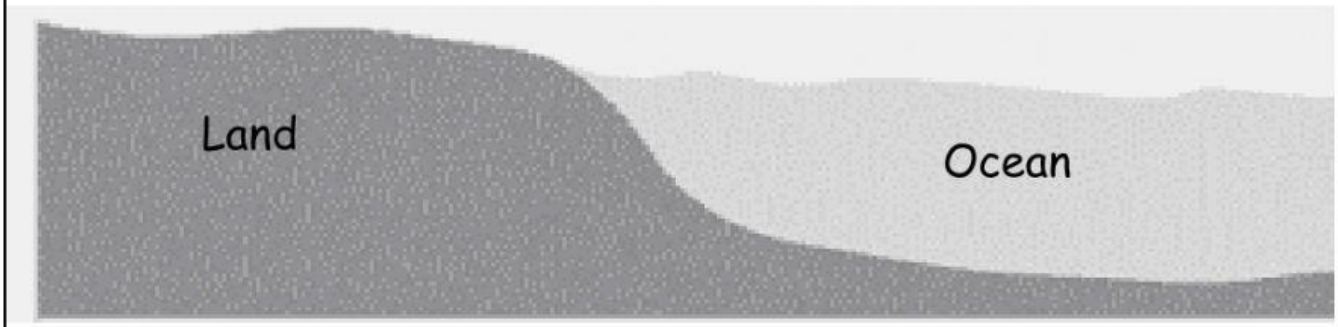
Use the animation to fill in the temperature and draw the arrows of in air flow/convection cycle.

Time: 10 PM
NIGHT



Land Temp. ____

Ocean Temp. ____

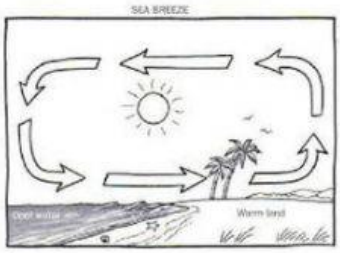


1. Is the land or ocean hotter? _____. That means the air over the land will _____(rise or sink).
2. Is the land or ocean colder? _____. That means the air over the ocean will _____ (rise or sink).

Use the words from the word bank to make the paragraph complete.

- Colder Sea Sun Rising Warmer Sinking
- Colder Land Low High

During the night, when the _____ is down. The land gets _____ quicker than the Ocean. The air above the land gets _____ too and is more dense, so it sinks. Meanwhile, the air over the ocean is _____ /less dense and rises. The sinking dense air creates _____ pressure over the _____ & the rising air creates _____ pressure over the _____. A "land breeze" develops from movement of hot air _____ and cold air _____. A land breeze is when the wind we feel comes from the _____.



<u>Helpful Hints</u>: Breezes are the winds that are low to the ground. This is what humans feel. We call breezes where they come from not where they are going. Look at the picture to the side.

Where is the breeze coming from? _____ (land or sea)

Why would the air over the land rise? _____ (its hot or cold) When hot air rises and cold air sinks, it is called a _____ cycle.

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