

Name:

Date:

Period:

Ocean – Atmosphere Interactions

Questions:

Notes:

_____ is the state of the atmosphere at a specific place and time

_____ is the long-term (30 year) average of weather in an area

Both weather and climate are affected by the _____

Water, gases, and _____ are exchanged between the ocean and atmosphere

This Exchange

- _____ the surface temperatures of the ocean
- Shapes the Earth's _____ and _____
- Generates most of the ocean's _____

Coastal Breezes

The land and water heat at different _____

Land heats and cools _____ than the water

Sea Breeze

- Caused by _____ heating between land & water
- As the warmer air over the land rises, _____ pressure forms
- Air above the water is _____ and has relatively higher pressure

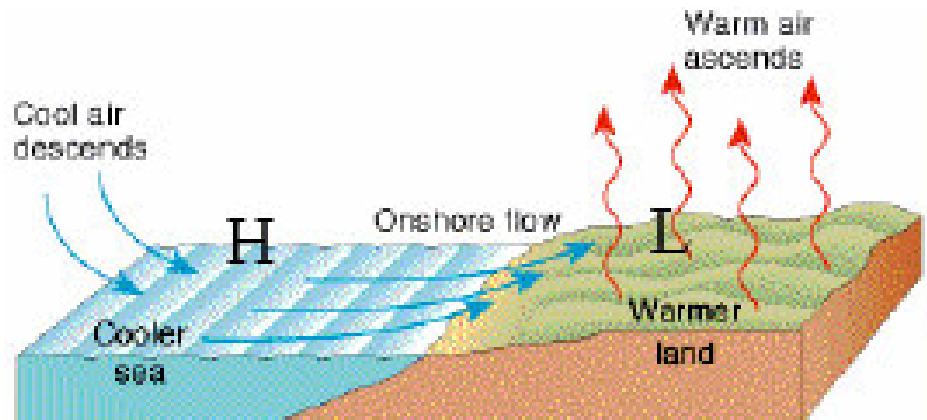
Summary:

Name:

Date:

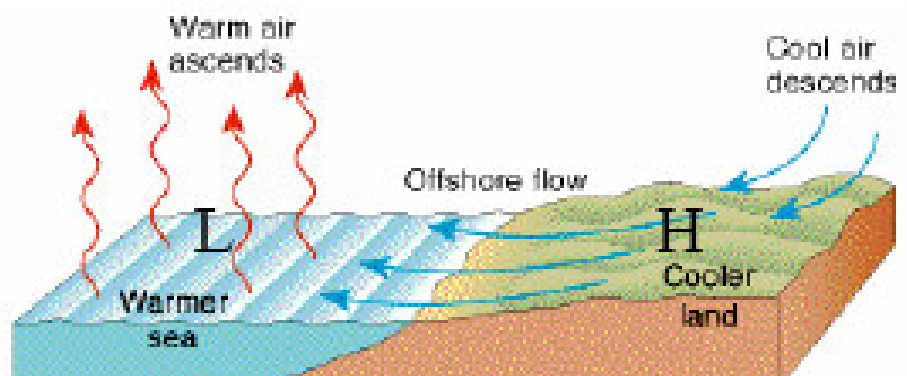
Period:

- Since wind always blows from _____ to _____ pressure
- Air moves from the water to land resulting in a _____



Land Breeze

- Land Breeze is the reverse of a sea breeze blowing from the _____ toward the _____
- Land cools down at night causing the water to be _____ than the land
- _____ pressure forms over land while the _____ pressure is over water
- Since the pressure areas have switched places, the wind _____ direction



Summary:

Name:

Date:

Period:

Ocean Currents

- Places close to an ocean
 - _____ rainfall
 - _____ temperature
- Carry _____ water from warm areas to otherwise cold areas

Gulf Stream Current

- Transports warm water from tropics to _____

 - keeps Europe _____ for its latitude

Why do the cities on the western coast of the United States typically have cooler temperatures than those on the eastern coast?

Tropical Cyclones

Great masses of _____, _____, _____ air

Occur in _____ oceans

_____ in the North Atlantic

_____ in the Western Pacific

_____ in the Indian Ocean

A hurricane's energy source is _____ seawater

Summary:

Name:

Date:

Period:

- Hurricanes start out as _____ (Low Pressure Zones) off the coast of _____ or in the Caribbean
- Next, when their wind speeds reach _____ mph they become _____ (and they get a name)
- They become _____ once they reach a wind speed of _____ mph

How do coastal mountains affect climate?

Mountains along a coast _____ moisture from reaching inland.



On the diagram above label the windward side, leeward side, and desert.

Summary: