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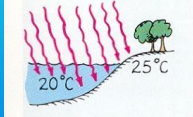
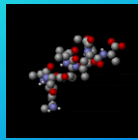
The Factors that Influence Climate are:

- Latitude
- Planetary wind belts
- Ocean currents
- Humidity
- Cloud cover
- Vegetation
- Oceans and other large bodies of water

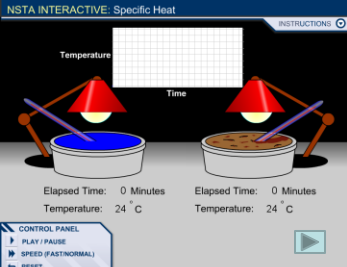
Don't Write!

Large Bodies of Water

- Lake, ocean, seas modify climate patterns
- Water takes time to **HEAT** up & **COOL** down because it has a **HIGHER SPECIFIC HEAT**

NSTA INTERACTIVE: Specific Heat



Temperature vs. Time graph area.


Elapsed Time: 0 Minutes
Temperature: 24 °C

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Temperature: 24 °C


CONTROL PANEL: PLAY / PAUSE, SPEED (FAST/NORMAL), RESET

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Current Temperatures



Examples of Continental and Marine Climates




Range: The difference between the HIGHEST value and LOWEST value for a set of data

Inland Areas Coastal Areas

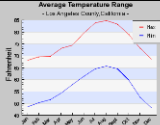
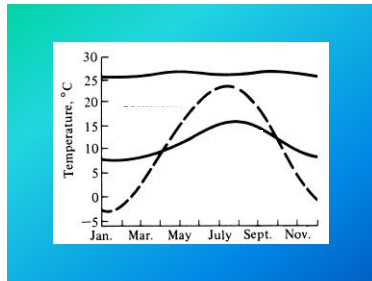
MARINE CLIMATE

Cooler Summers & Warmer Winters
-Small annual temperature range



CONTINENTAL CLIMATE

Cold winters & Hot summers
-Large annual temperature range

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Ocean Currents

- Currents flowing away from the equator carry **WARM** water to higher latitudes

- Causes **WARMER** Climates & **MORE** precipitation

- Currents flowing toward the equator carry **COOL** water to lower latitudes

Continental climates are under the influence of winds from the continental interior.

Maritime climates are generally characterized by westerly winds.

Cold California current brings cooler temperatures to the coast in summer.

COOLER climates with **LESS** precipitation

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Prevailing Winds

- U.S located in the prevailing southwesterly wind belt

- Weather moves to the Northeast

CALIFORNIA has more of marine climate because prevailing winds blowing from the coast

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MONSOONS

Weather changes caused by the shifting of Prevailing Winds

- Causing wet summers & dry winters in Asia

El Niño

El Niño ANIMATION

-Periods of ocean **WARMING** along the Pacific coast of South America

La Niña

-Periods of ocean **COOLING** along the Pacific coast of South America

There tend to be frigid winters on the east coast.

Droughts occur in California, which can lead to wildfires.

TWO ARCTIC SHIFTS COMING

SANTA ANA WINDS THROUGH SAL

HIGHS IN THE 90s
WINDS 30-70 MPH
EXTREME FIRE DANGER

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