

The Physical Earth



The Ground

- Also known as the
- Earth itself is made of
- The top layer we live on is not even solid
 - Consists of
 - Fit together like puzzle pieces
 - Are in a constant state of



225 million years ago



150 million years ago



100 million years ago



Earth today

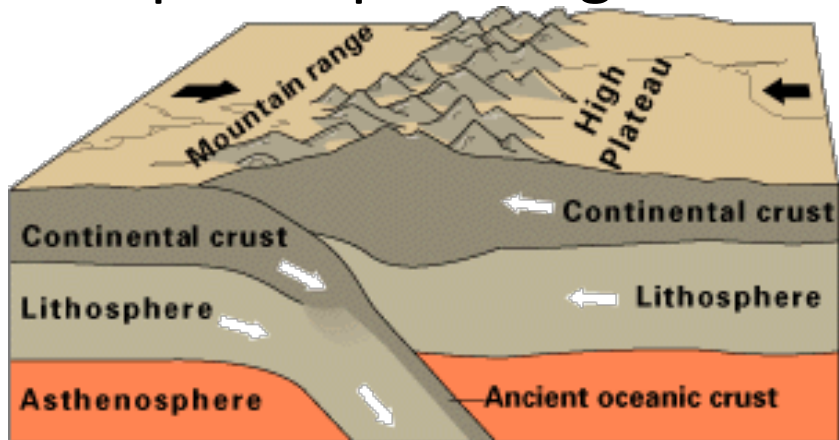
The Ground

- As these plates move, they bump into each other creating ; 3 types...

—

—

— created where plates push together



Continental-continental convergence



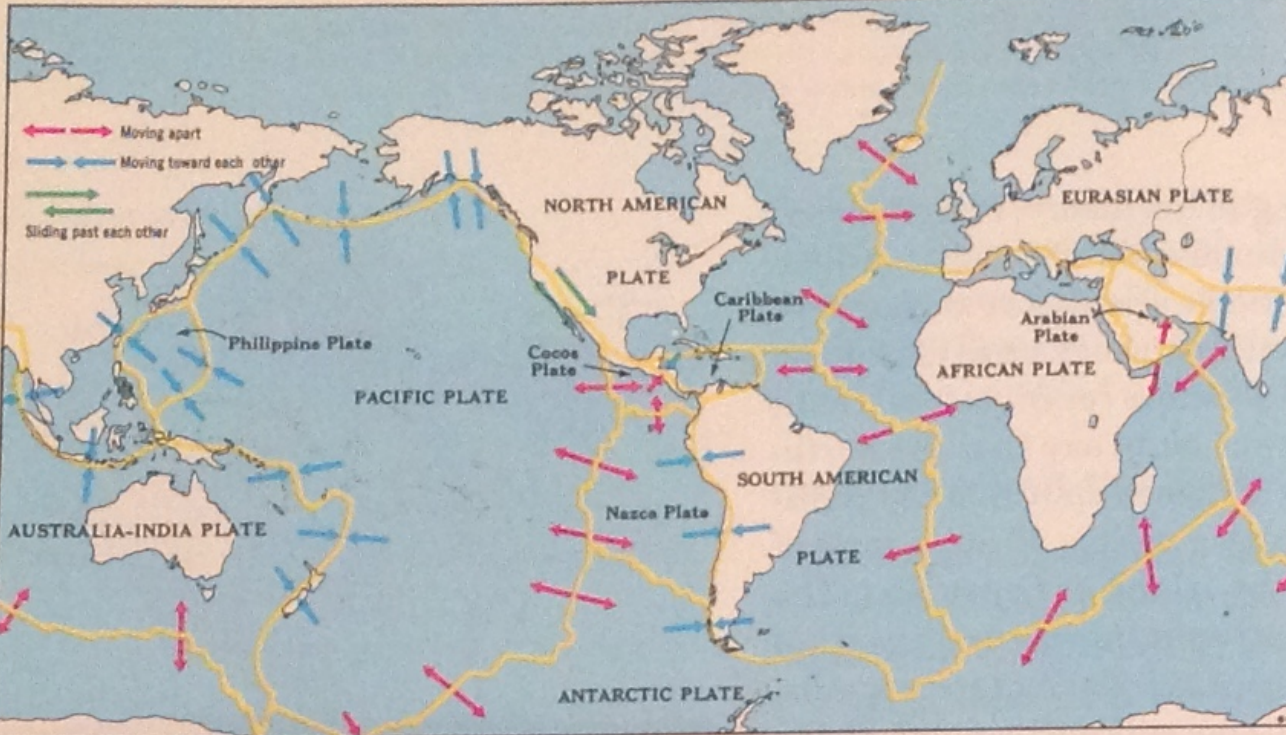
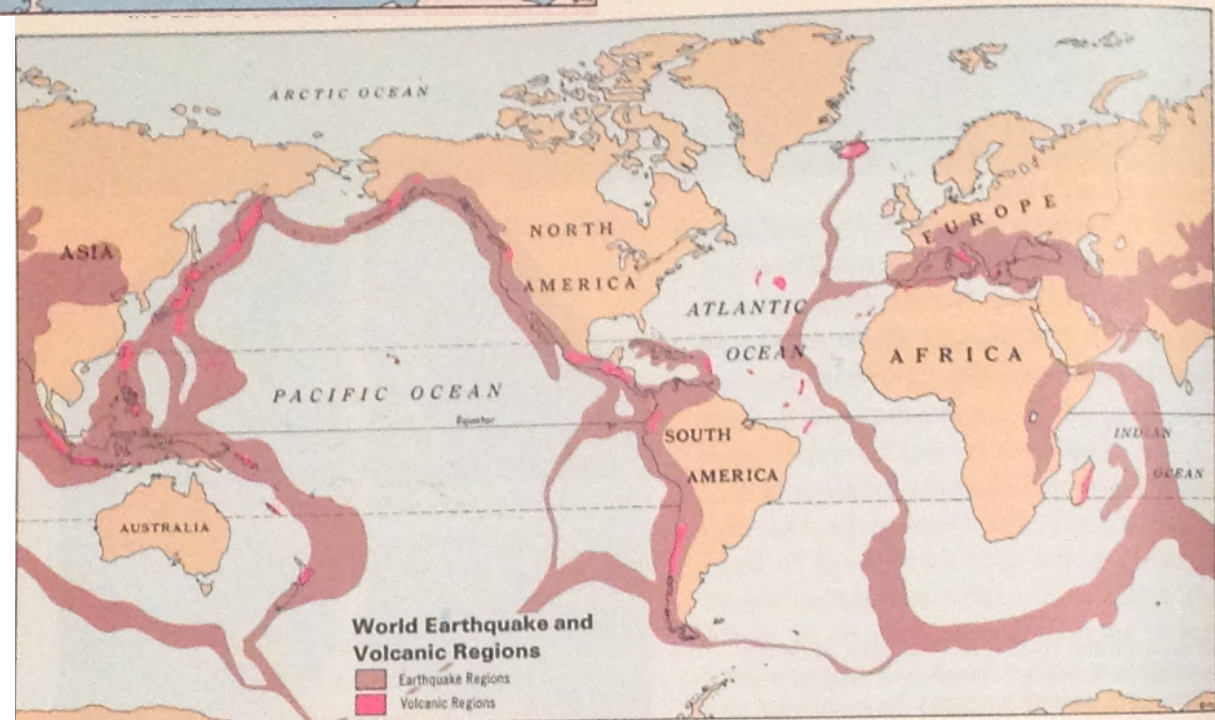


Plate movement

Tectonic activity

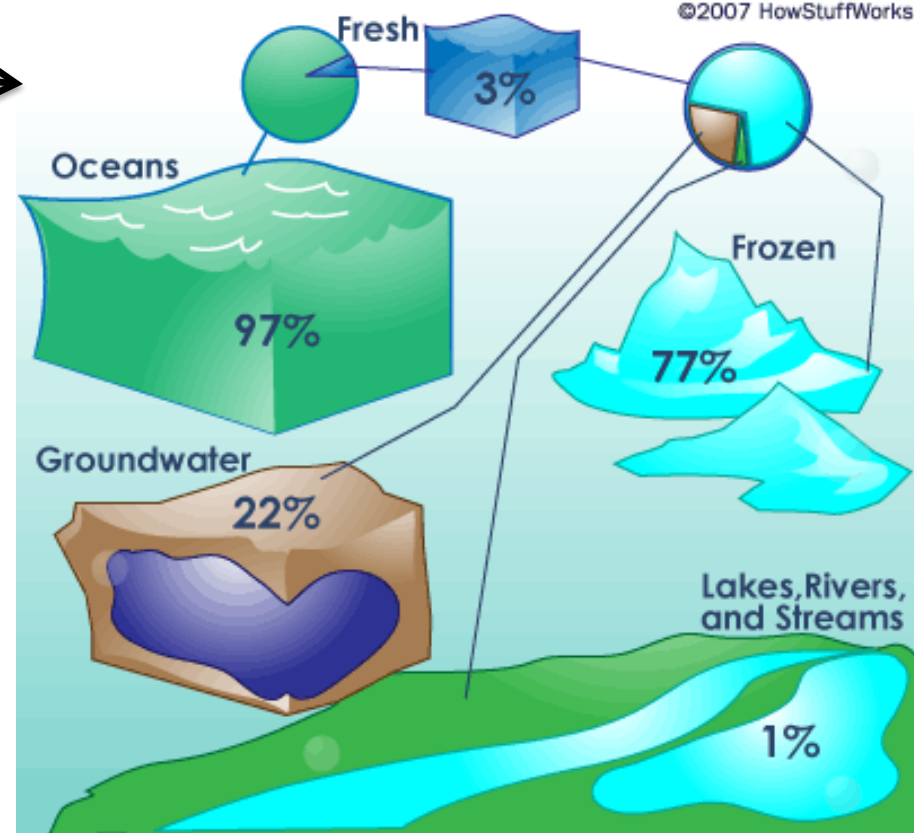


The Water

- Also known as the
- This is why pollution is such an important issue...

- Water heavily impacts both physical & human geography

- People, animals, and plants require to survive
- Large bodies of water influence
- landforms (Earth's most



The Air

- Known as the
- Helps to protect Earth from
along with Earth's magnetic field
- that form in the atmosphere act as a blanket helping
- At different places around Earth winds constantly blow in certain directions
 - Known as
 - This is a result of the sun

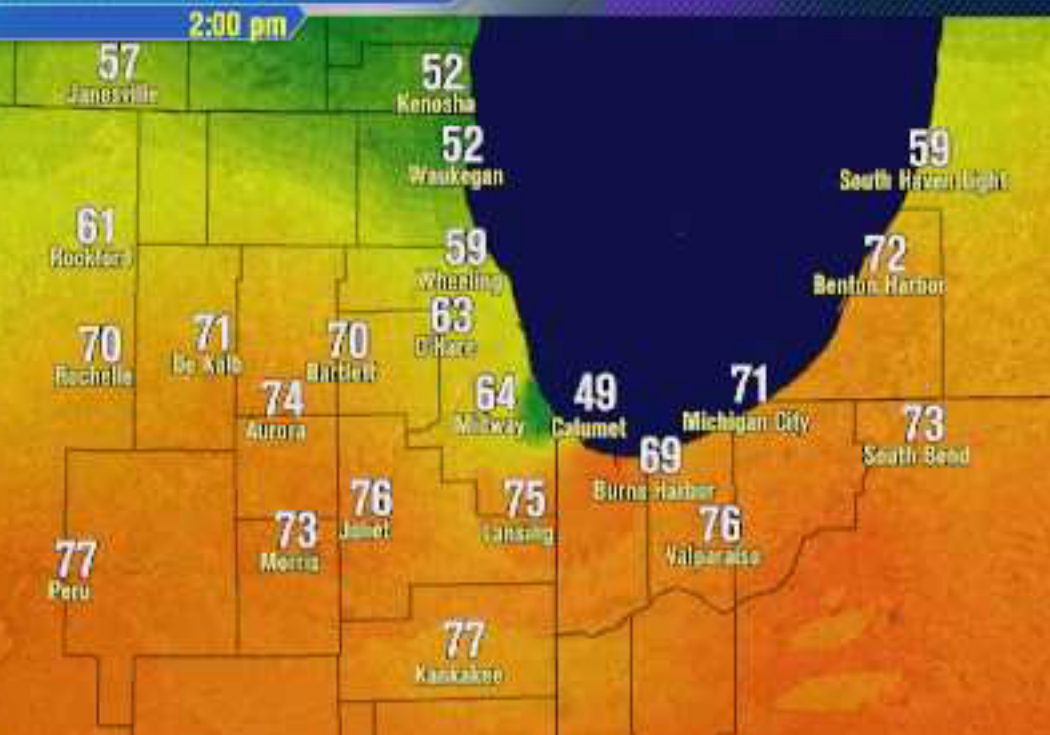
The Air

- Weather ≠ climate
 - Weather is the
(temp., cloud cover, precipitation)
 - Climate is the
- Climate ≠ terrain
 - Would a desert be a climate or terrain?
 - Terrain is the
 - Therefore, a desert would be a ; the
of such an area is known as

The Air

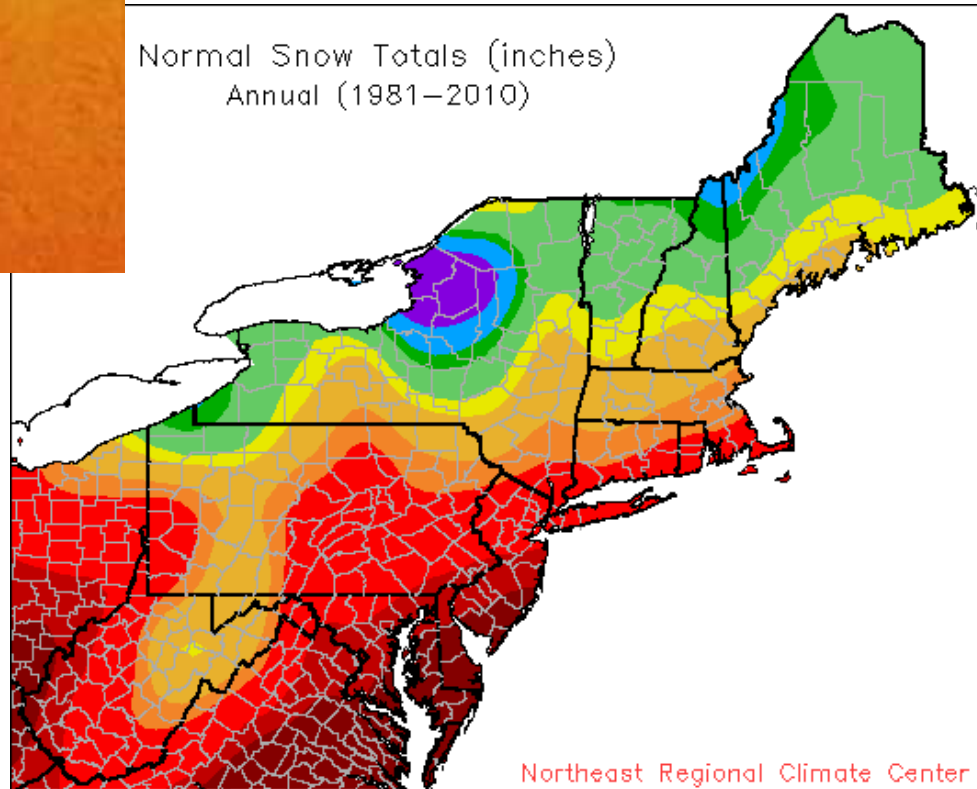
- Primary factors that impact climate and weather patterns:
 - (how close to the equator are you?)
 - Large bodies of water
 -

2:00 pm

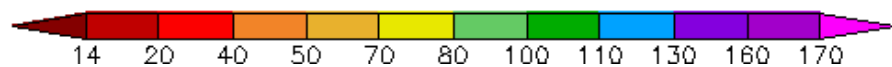


The Lake Effect

Normal Snow Totals (inches)
Annual (1981–2010)



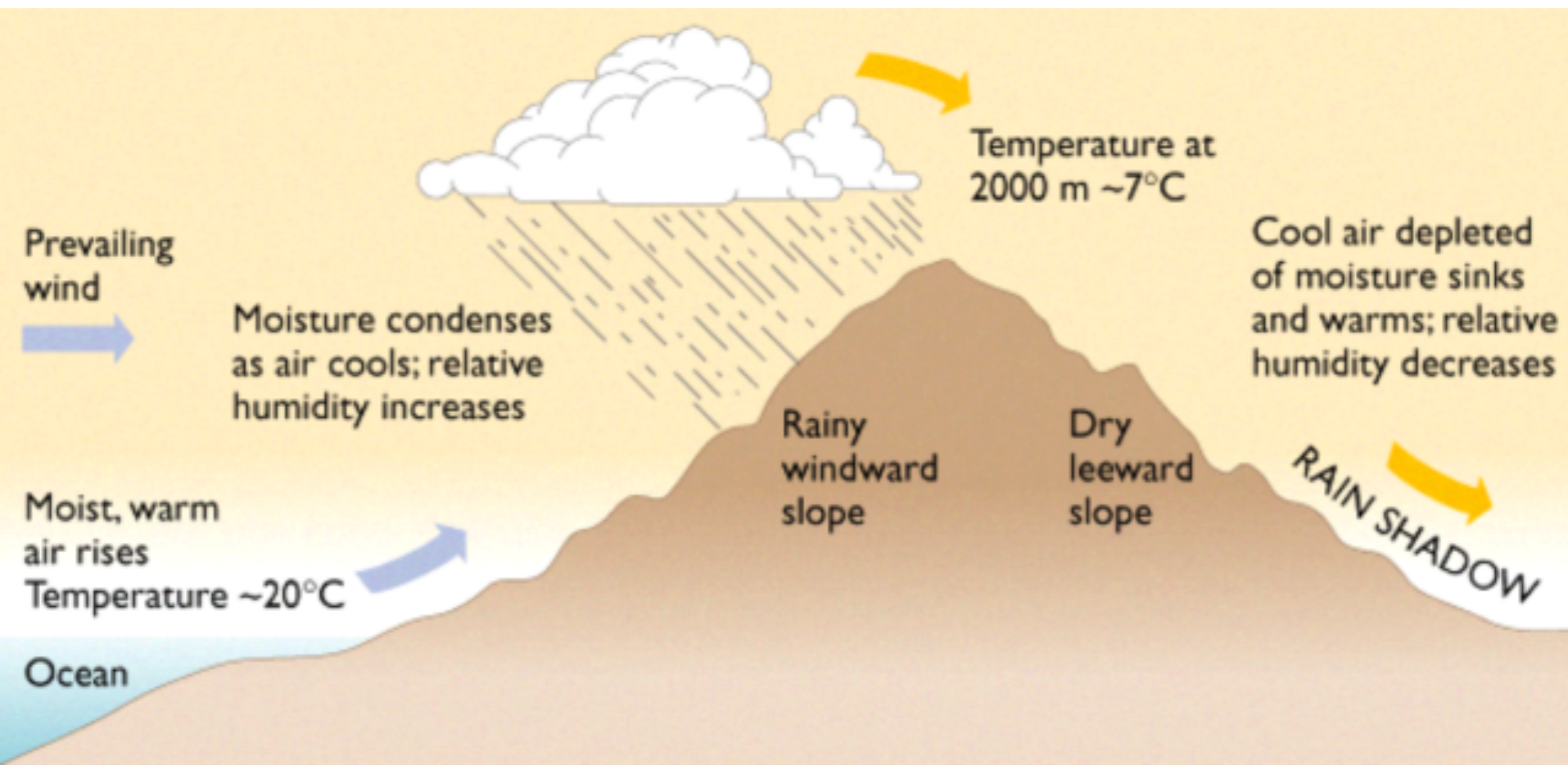
Northeast Regional Climate Center



The Air

- Other factors of weather and climate:
 - are cooler (air warms along the , so you're further from the heat source)
 - Mountains create an (rain shadow) effect creating
 - Within the prevailing winds are zones of
 - zones are areas
 - zones are areas

The Orographic Effect



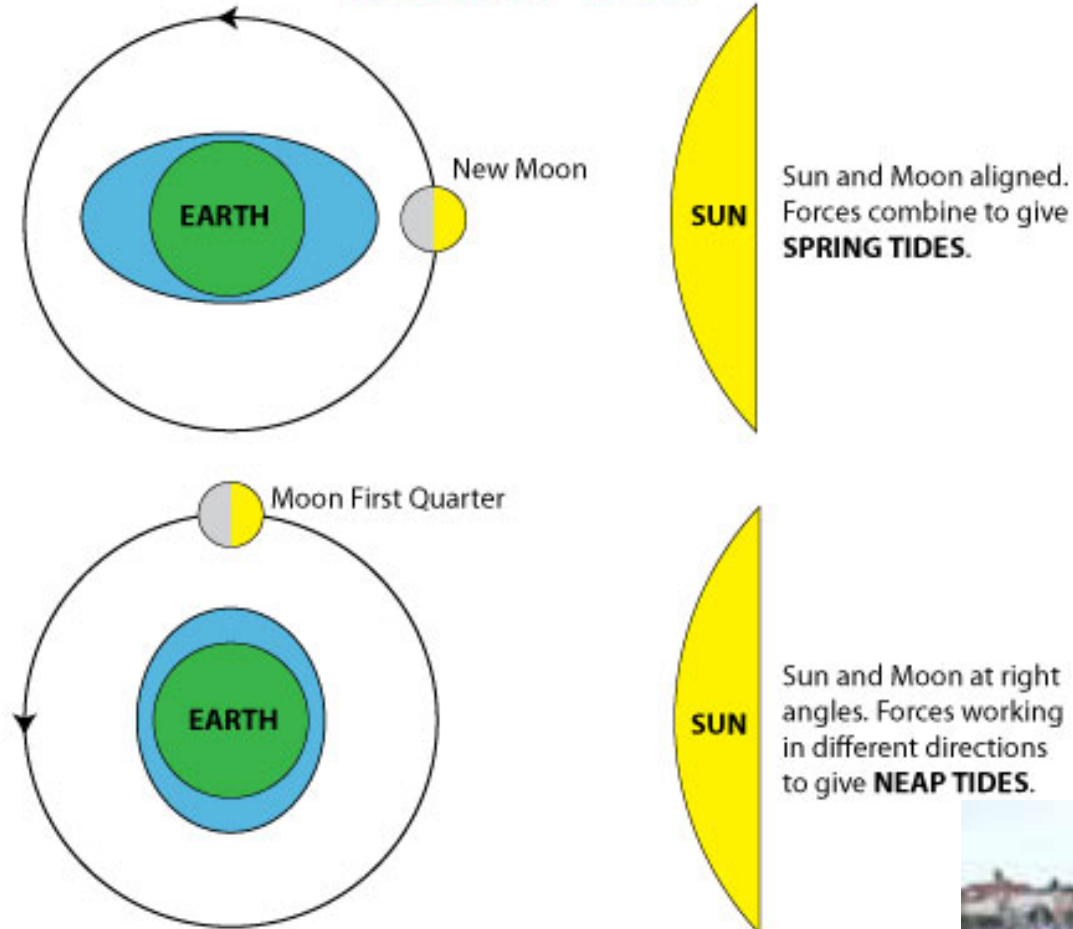
[Video: Pressure systems, weather, and climates](#)

Earth in Space

- Earth is tilted at
- Earth's round shape and tilt results in



- Special water relationship with causes
 - Gravitational force of the moon creates tides
 - When the sun, Earth, and moon line up with each other it magnifies this effect



The same marinas at
high and low tide

