

First: fill your tub up with cold water.

Warm Up 6: Influences on Climate
10-29-18

LT I can describe different factors that influence Climate.

Q1 What is the difference between weather and climate?

Q2 List as many factors as you can think that influence climate

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Q1 What is the difference between weather and climate?

Ⓐ Weather is the temperature and precipitation on a day to day bases.

Q2 List as many factors as you can think that influence climate

Ⓐ Altitude, Latitude, Topography



Quiz: Weather

Out of 18

20 points possible

Ask Neighbors

-3 minutes

Ask LeMay

-? Minutes

-Get a piece of paper out for Notes 4: Factors on Climate (will take notes during Lab)

-Get your vocab list out.

HW 4 correction

ask neighbor

1 min

ask LeMay

? min

Study Guide questions

ask neighbor

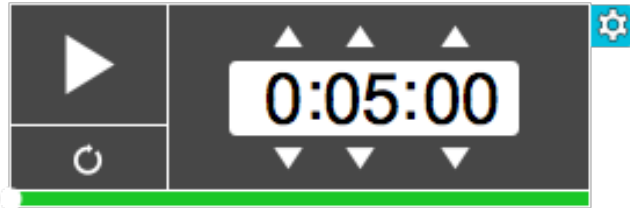
1 min

ask LeMay

Vocab 8

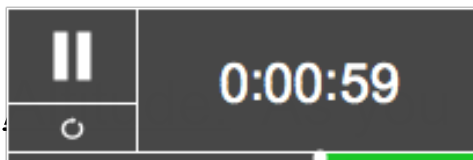
8) Specific Heat Index: The amount of energy required to raise the temperature of a substance

EX



Lab: Influence on Climate

10-26-18



Topography

As you increase elevation temperature decrease. You can have the same latitude but the temperature can vary greatly on the different altitude.

EX: Phenix Versus Flag Staff
Eugene versus Bend

Mountain Ranges:

As air passes over mountain ranges the air is pushed up and cooled, causing more rain. As the air drops in elevation once over the mountain the air warms and can hold more moisture and the rain stops. This is known as the Rain Shadow Effect.

Notes 4: Factors that influence Climate

Topography

Heat Absorption: Different substance absorb the Sun's energy at different rates. This causes different temperatures which lead to different amount of energy that allows for heating of the air through Conduction. If there is less conduction there is less convection and vice versa.

This leads to different local winds.

What about global winds?

Notes 4: Factors that influence Climate

Latitude: The sun has an immense amount of energy. The Earth receives that energy as Solar Power. (Radiant Heat)

The angle at which the Sun's rays hit the earth affect the amount of Solar power.

At the equator the Sun's rays are hitting the Earth at 90 degrees which has the highest intensity. As you move way from the equator the rays are hitting the surface at an angel and the greater the angel the more energy is lost and the cooler it becomes.

Because different latitude have different temperatures we have a variance in Conduction, thus Convection as well, which leads to GLOBAL WIND cycles.

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Q3 Why do different latitudes have different temperatures?

Q4 How does topography change a regions climate?

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Q3 Why do different latitudes have different temperatures?

Ⓐ The different latitudes receive the Sun's rays at different angles which lead to different intensities or strength levels.

Q4 How does topography change a region's climate?

Ⓐ Different materials have different heat indexes and result in more or less absorption of the Sun's energy. This changes the temp of the particular surface, which affects intensity of conduction and therefore how much convection occurs.

