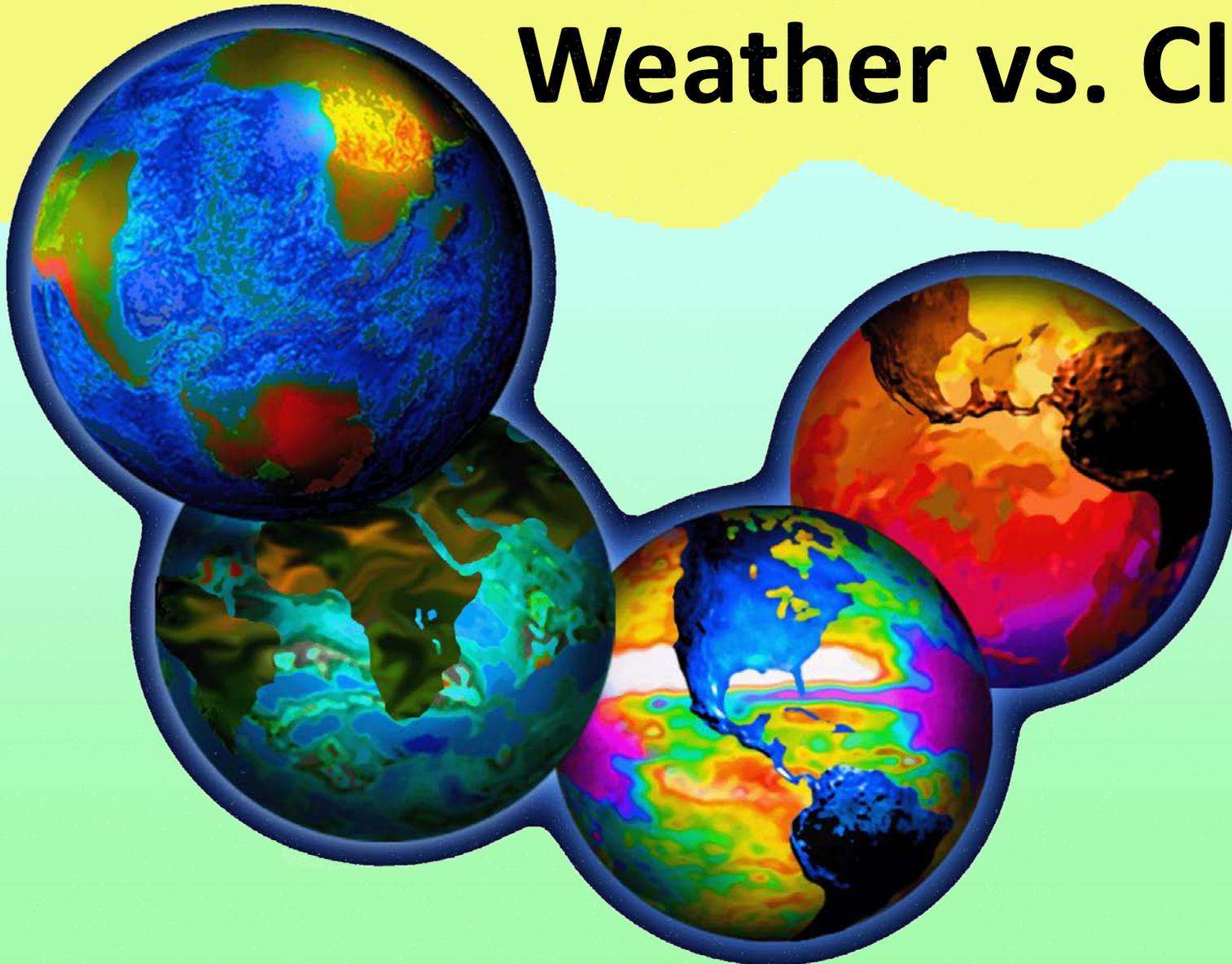
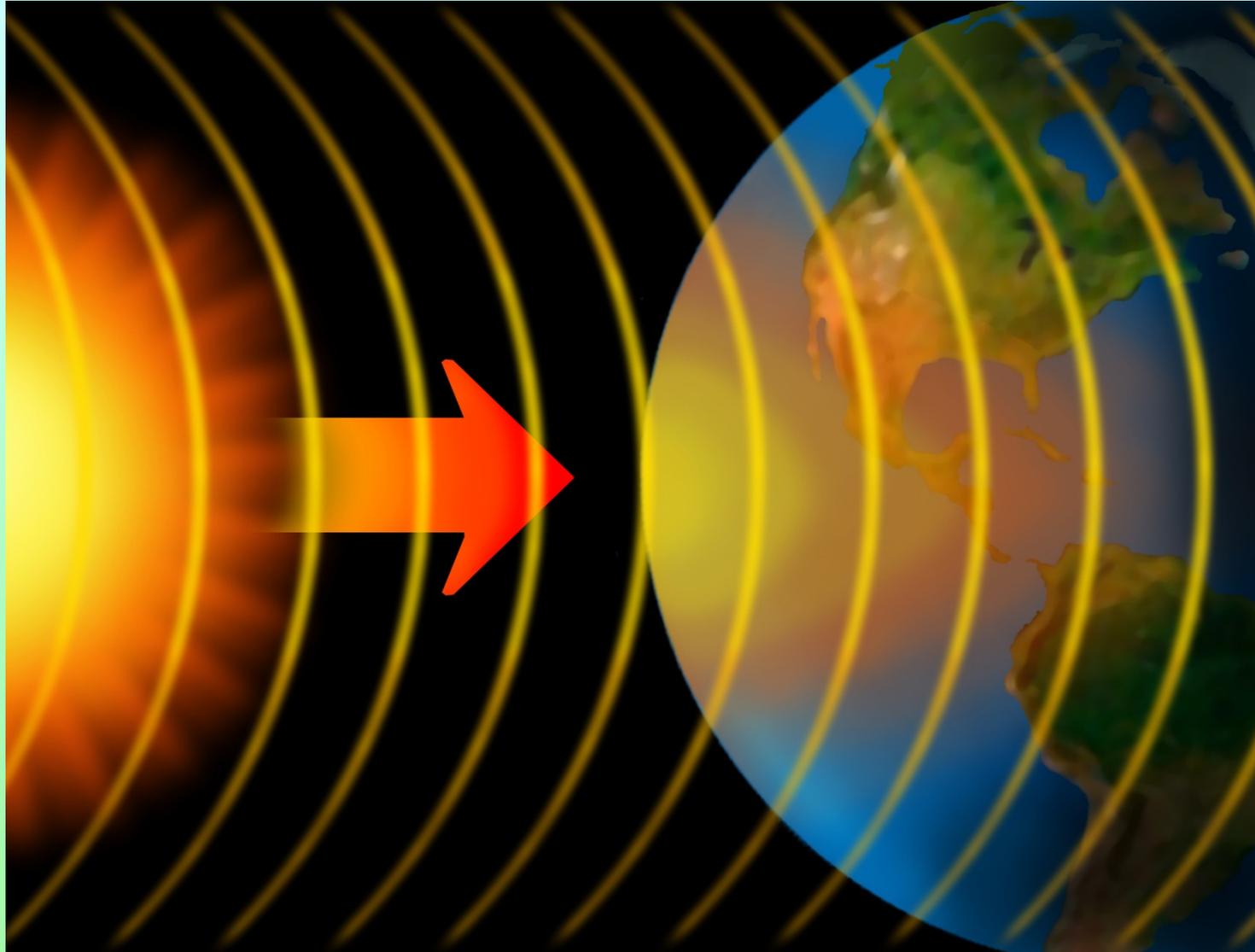


# Weather vs. Climate



# Weather begins with the sun



# What is weather?



or



# Some Weather Factors

**Wind.** This tool measures wind speed. It is called an anemometer.



**Precipitation.** Rain, snow, sleet and hail are all forms of precipitation.



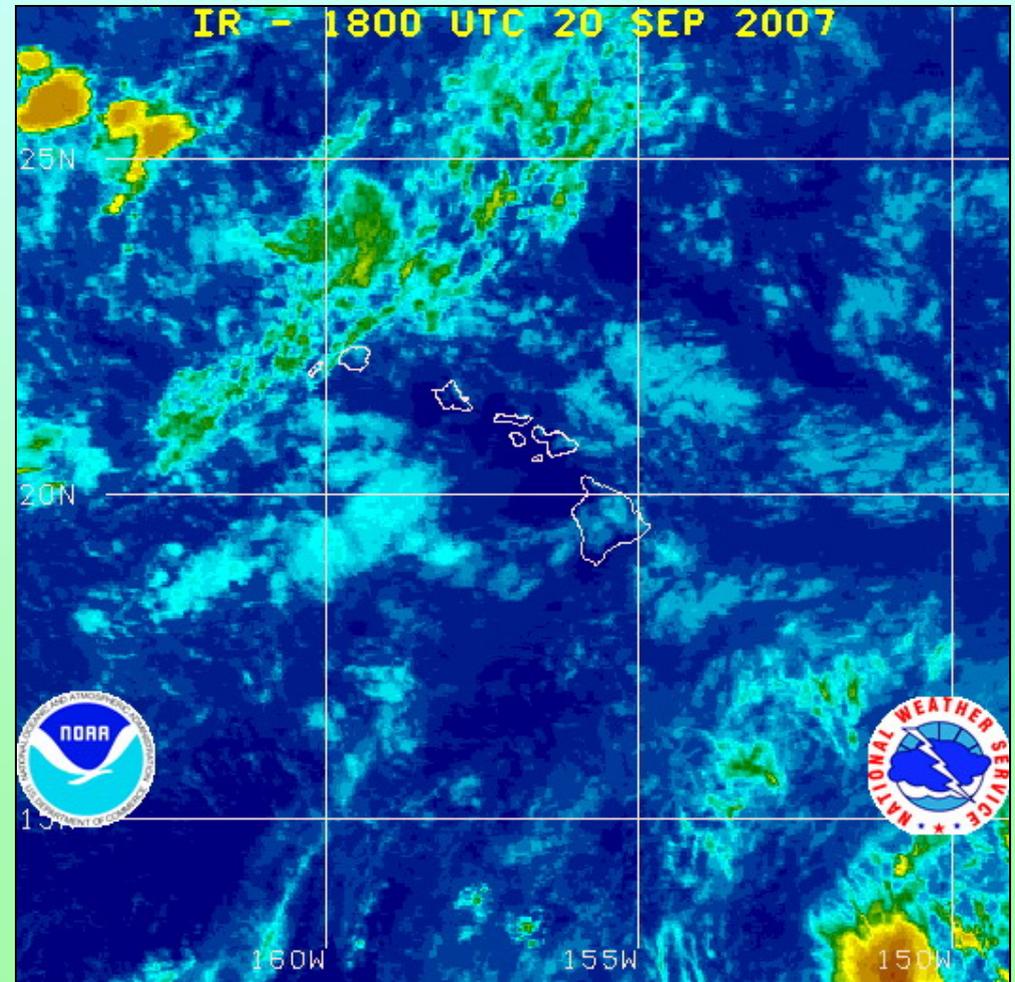
**Temperature.** Temperature is how warm or cold it is outside.



**Cloud Cover.** There are many types of clouds that form in different conditions.

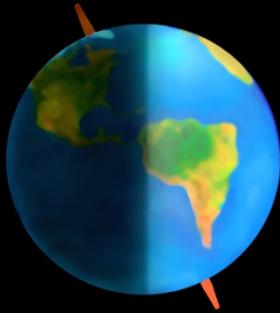


# How do we predict weather?

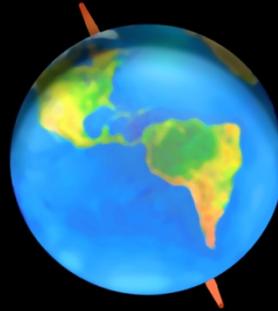


# Seasons on Earth

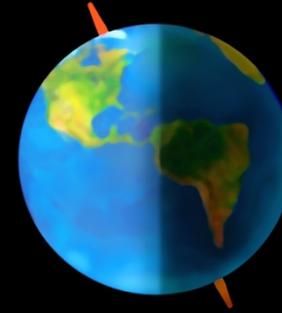
**December 21**  
**Winter Solstice**



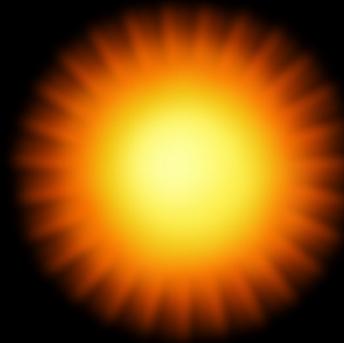
**September 22**  
**Autumnal Equinox**



**June 21**  
**Summer Solstice**



**March 20**  
**Vernal Equinox**



# Native Hawaiians recognized only two seasons

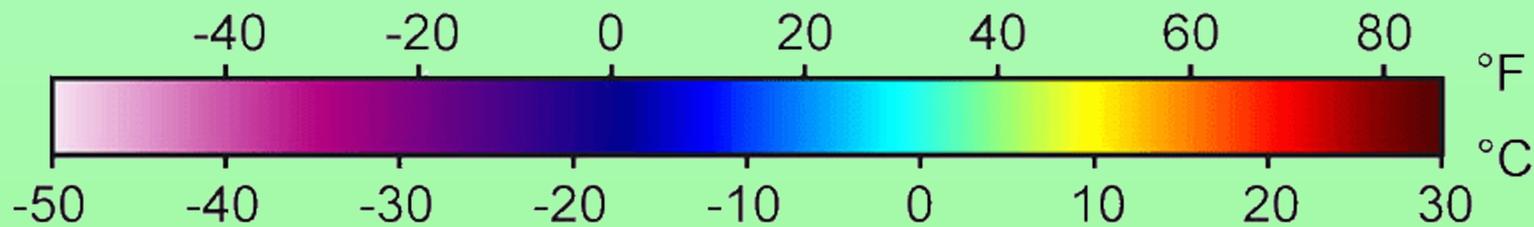
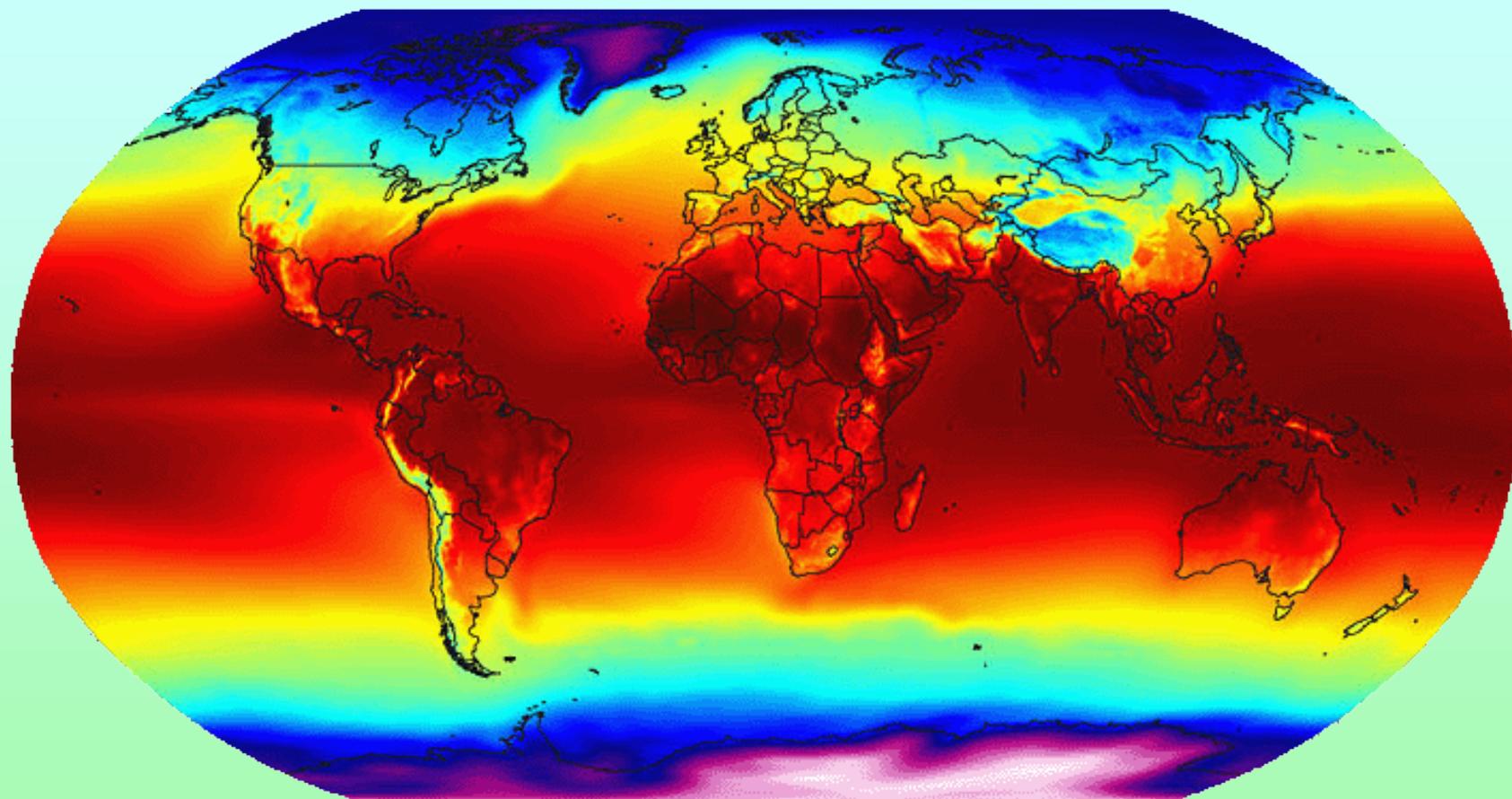
Hò oilo - Wet Season



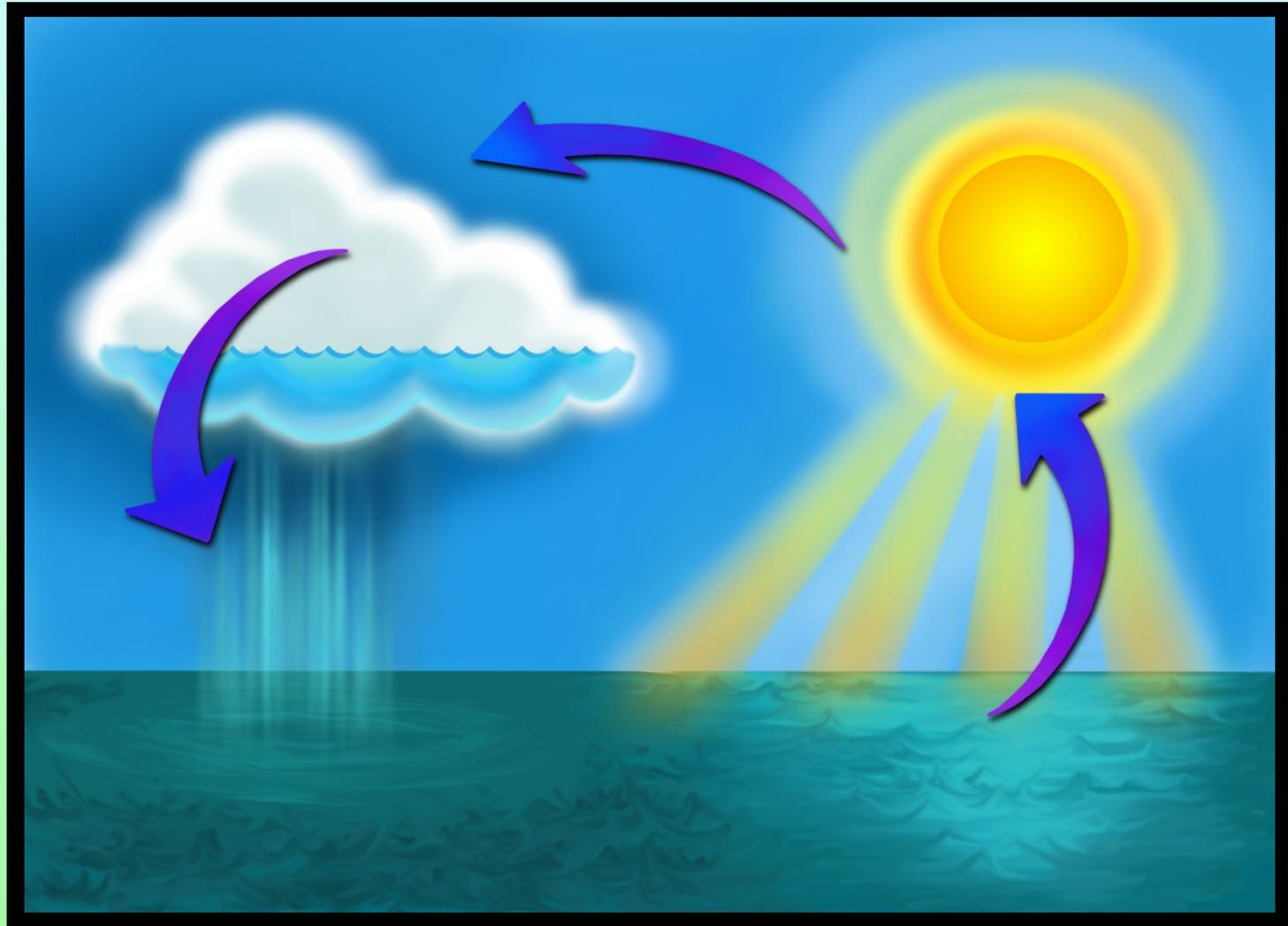
Kau - Dry Season



# What is climate?



# The water cycle affects both climate and weather



# Climate is weather measured over a long period of time

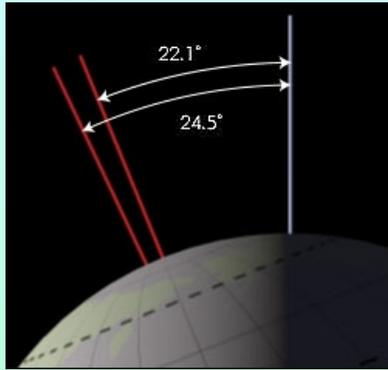
Weather =  
clothes for  
the day



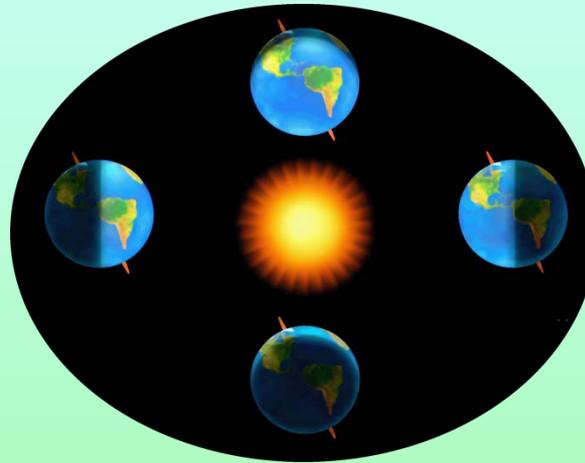
Climate =  
clothes in a  
closet



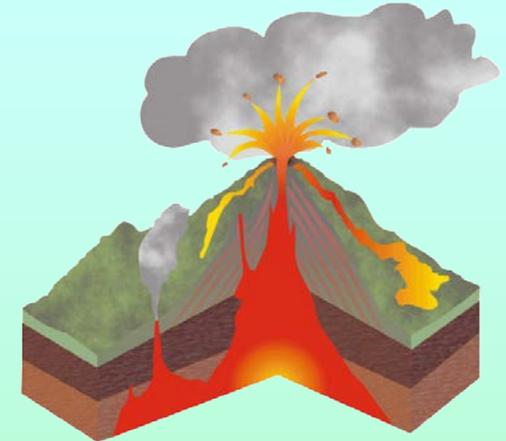
# What factors affect climate?



Earth's tilt



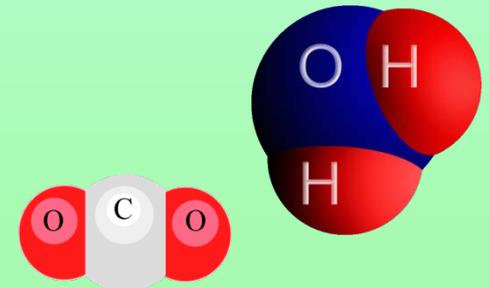
Earth's rotation around sun



volcanic eruptions



water cycle



Greenhouse Gases in the atmosphere

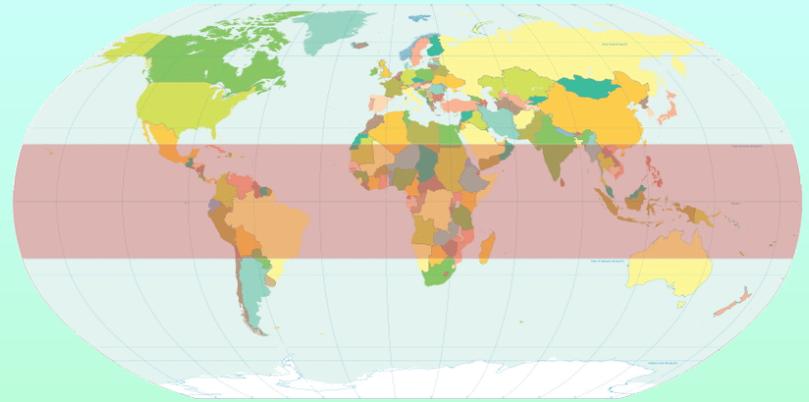
# What is Hawai'i's climate?



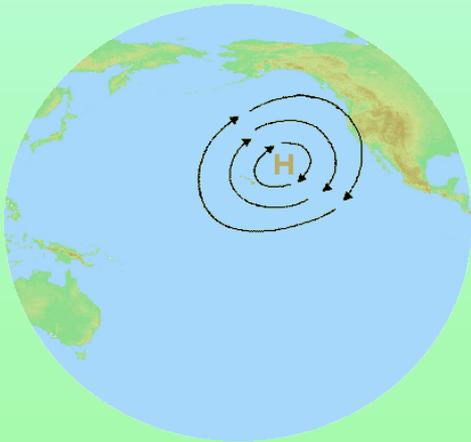
# What influences Hawai'i's climate?



mountain peaks, valleys, ridges,  
and broad slopes



tropical latitudes



Pacific High  
(atmospheric eddy)



distance from nearest  
continental land mass