




# CLIMATOLOGY

The Study of World Biomes



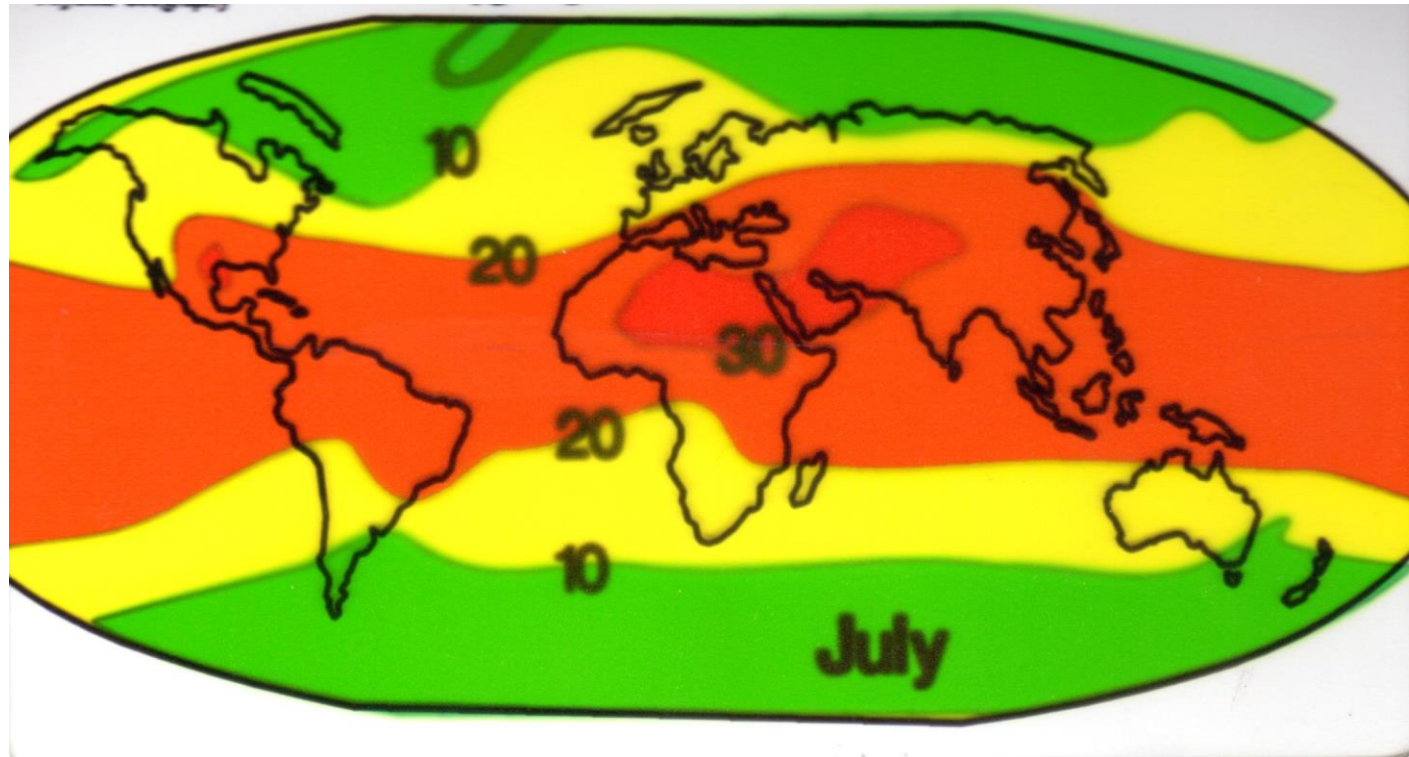
# DO BIOMES JUST HAPPEN BY ACCIDENT?

What factors make up a biome?

A vibrant tropical beach scene. In the foreground, large, green palm fronds with some brown tips are visible, framing the view. The background shows a clear blue sky with a few wispy clouds, a bright turquoise ocean, and a sandy beach in the distance. The overall atmosphere is bright and sunny.

**WHERE IS THE  
HOTTEST PLACE  
ON EARTH?**

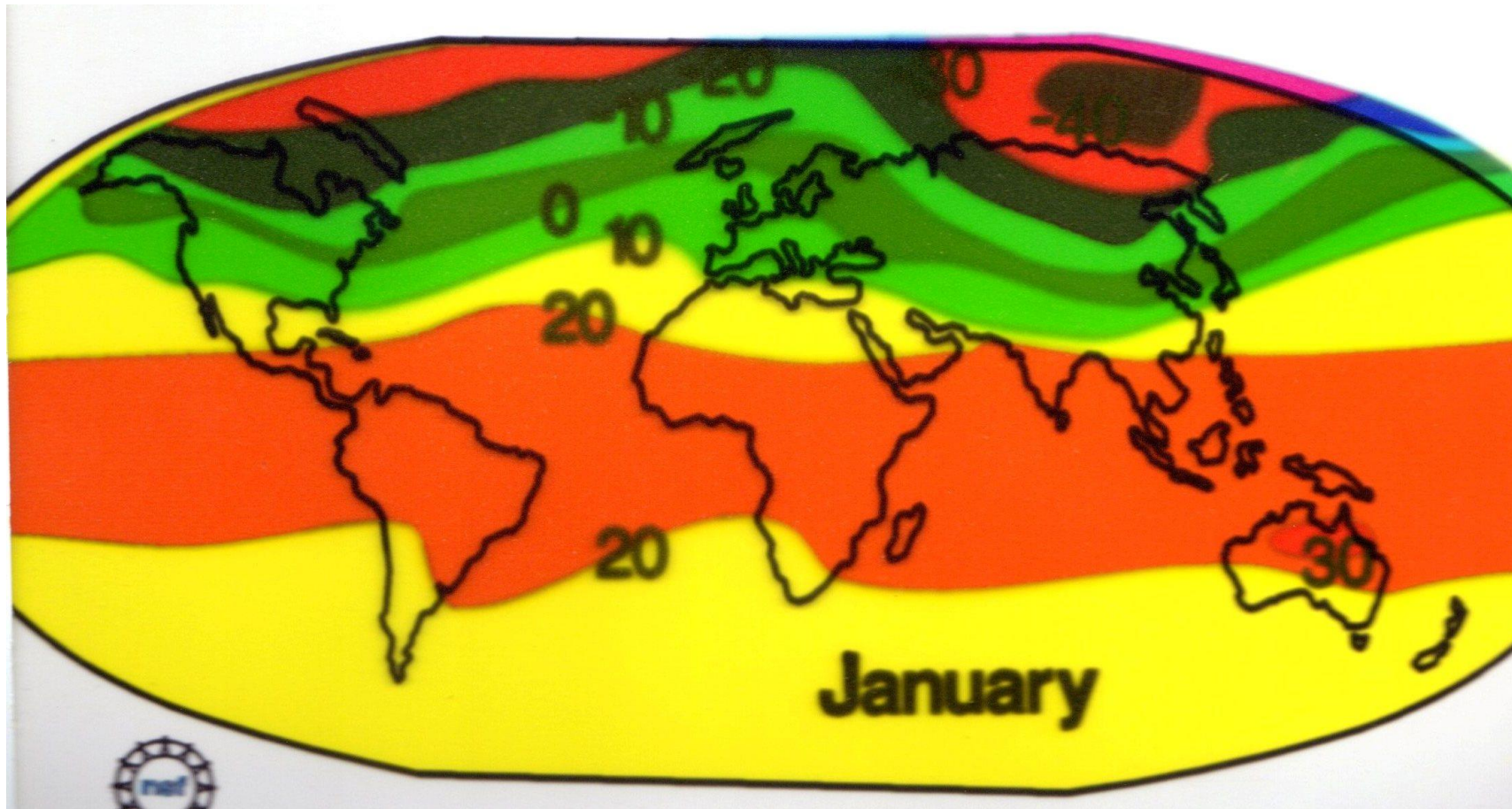
# DEATH VALLEY, ARIZONA



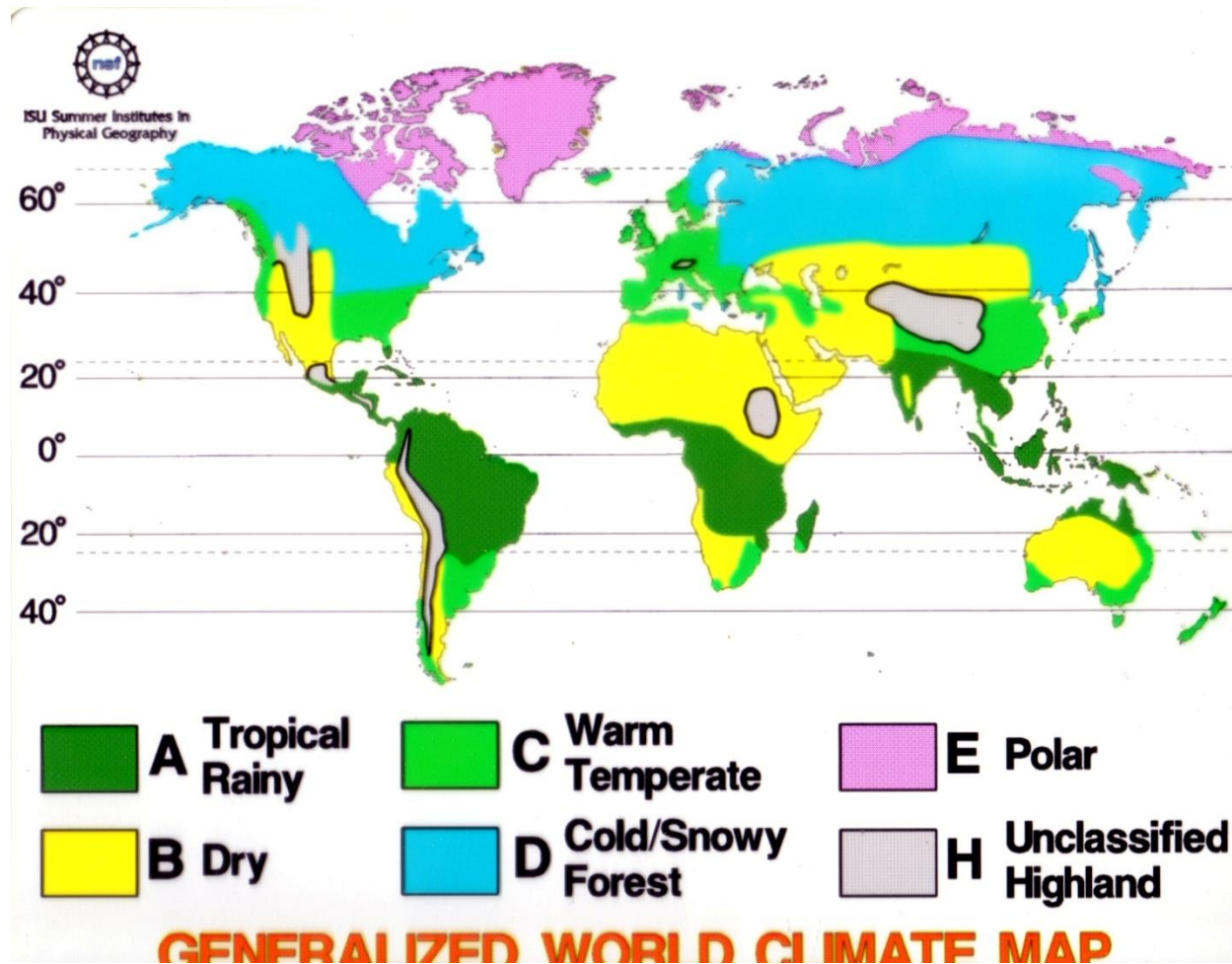


SO, WHERE'S THE  
COLDEST PLACE  
ON EARTH?

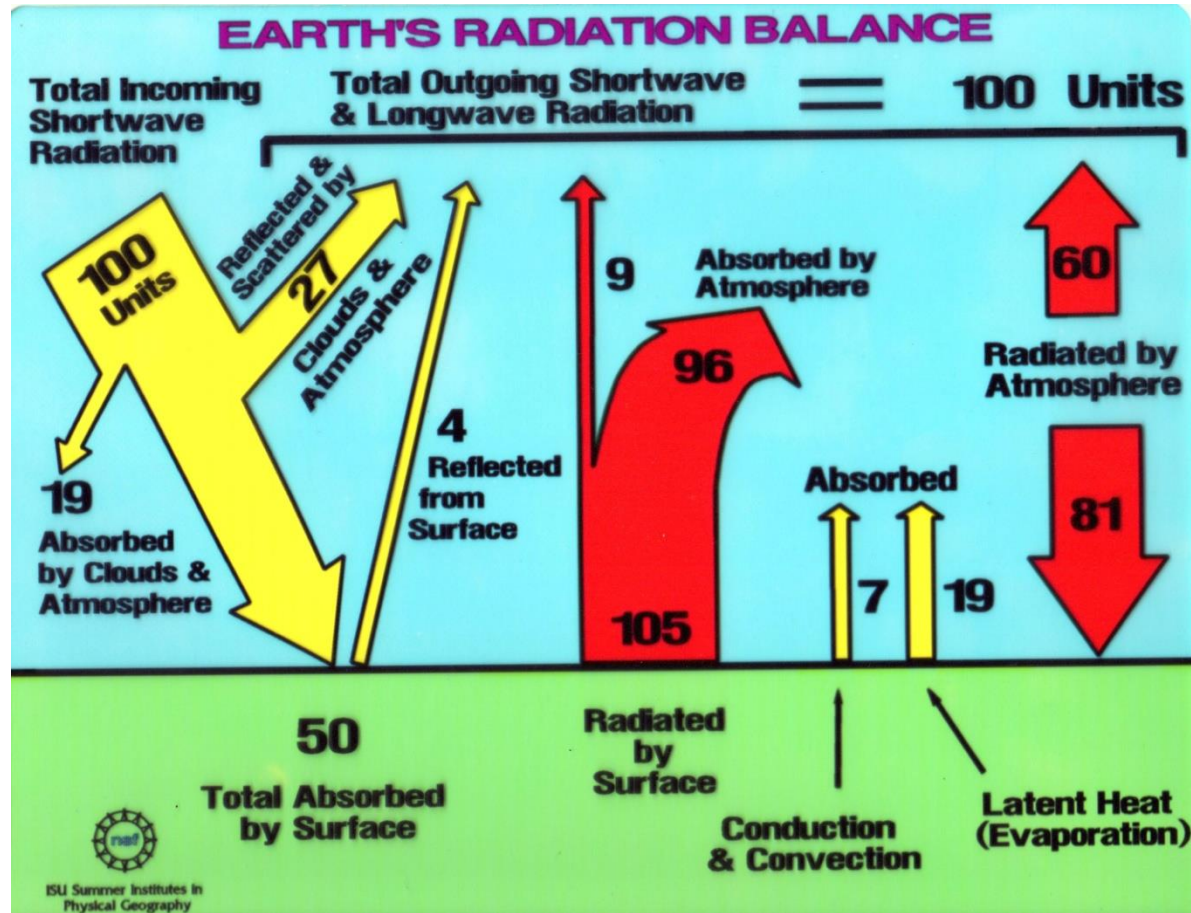
# SIBERIA, RUSSIA & THE ARTIC CIRCLE



# SO HOW IS THAT POSSIBLE?



# SO WHERE DOES ALL THE ENERGY FROM THE SUN GO?

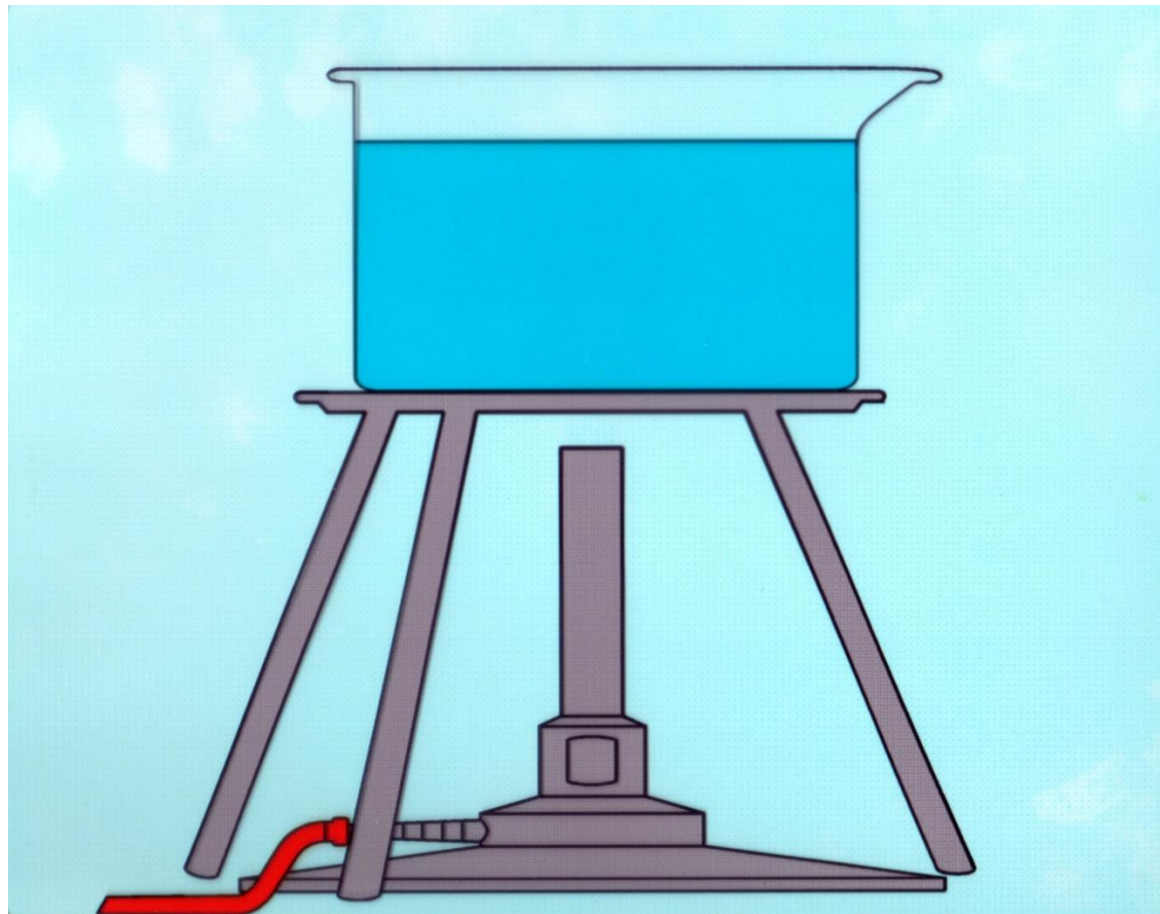




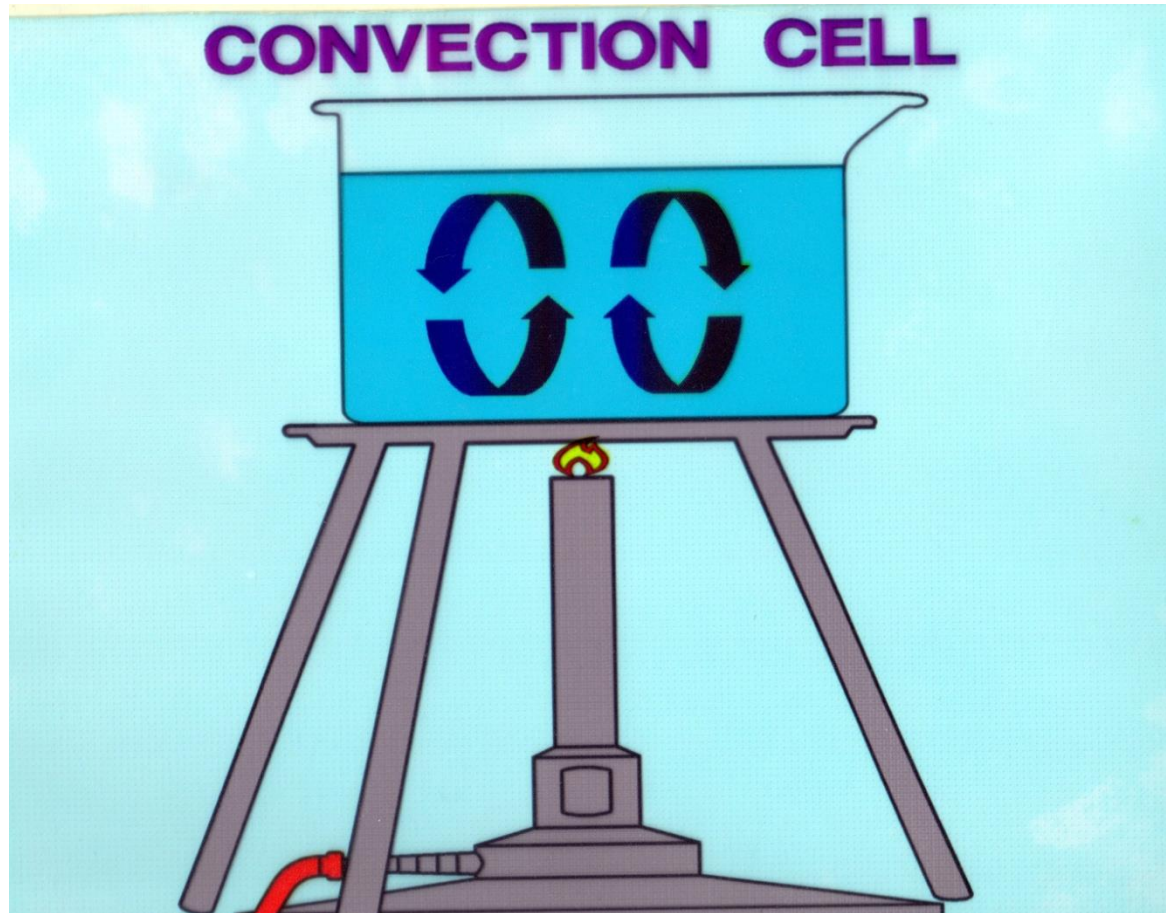


**WHAT IMPACT DOES  
THE SUN HAVE ON  
THE PLANET?**

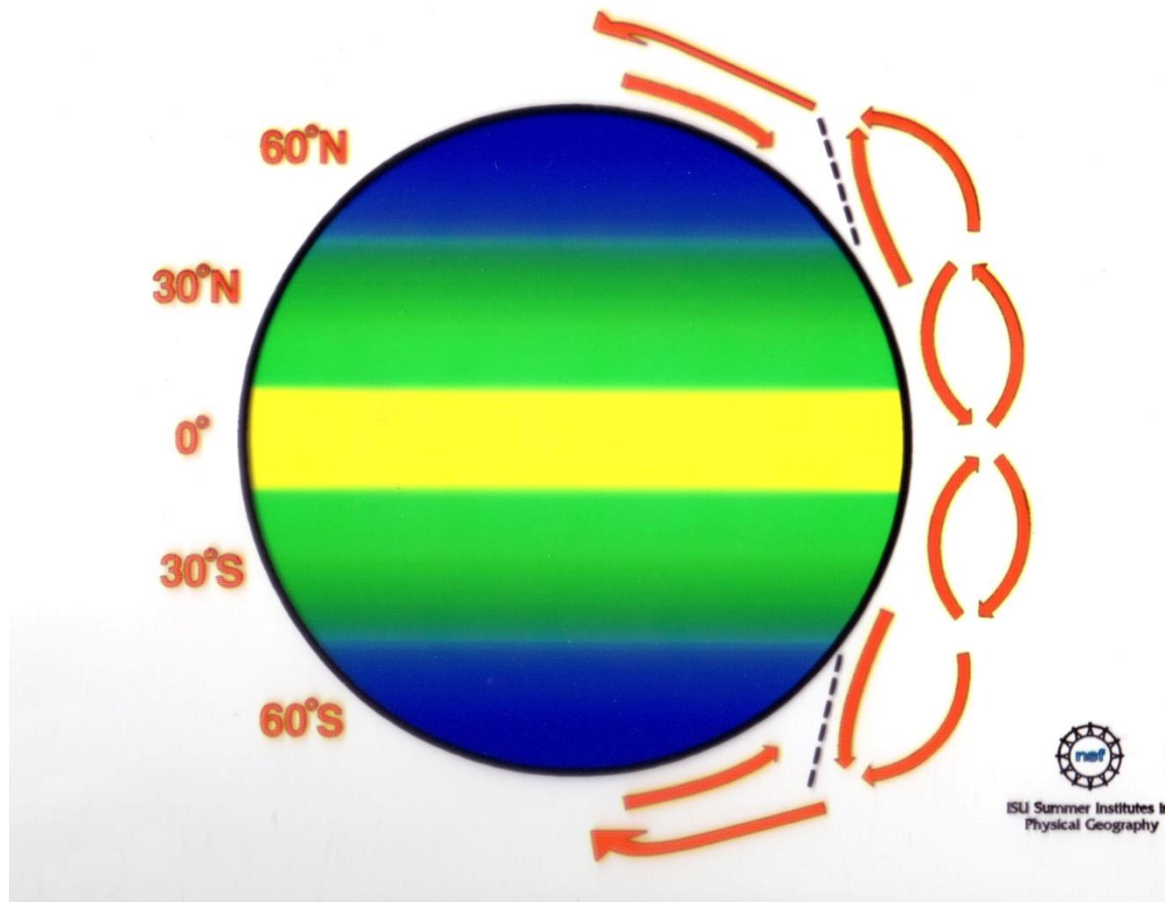
# WHAT HAPPENS WHEN YOU HEAT A BEAKER OF WATER?



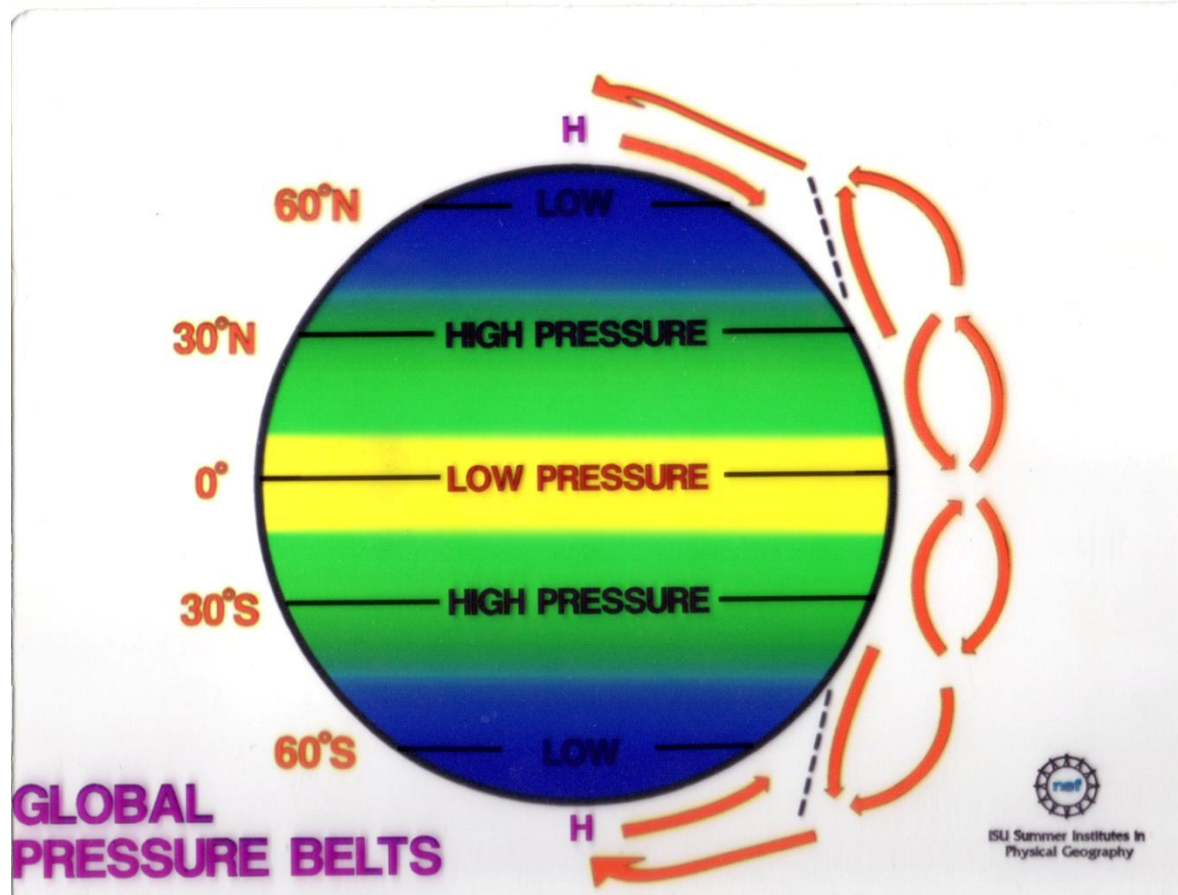
# WHAT HAPPENS WHEN YOU HEAT A BEAKER OF WATER?



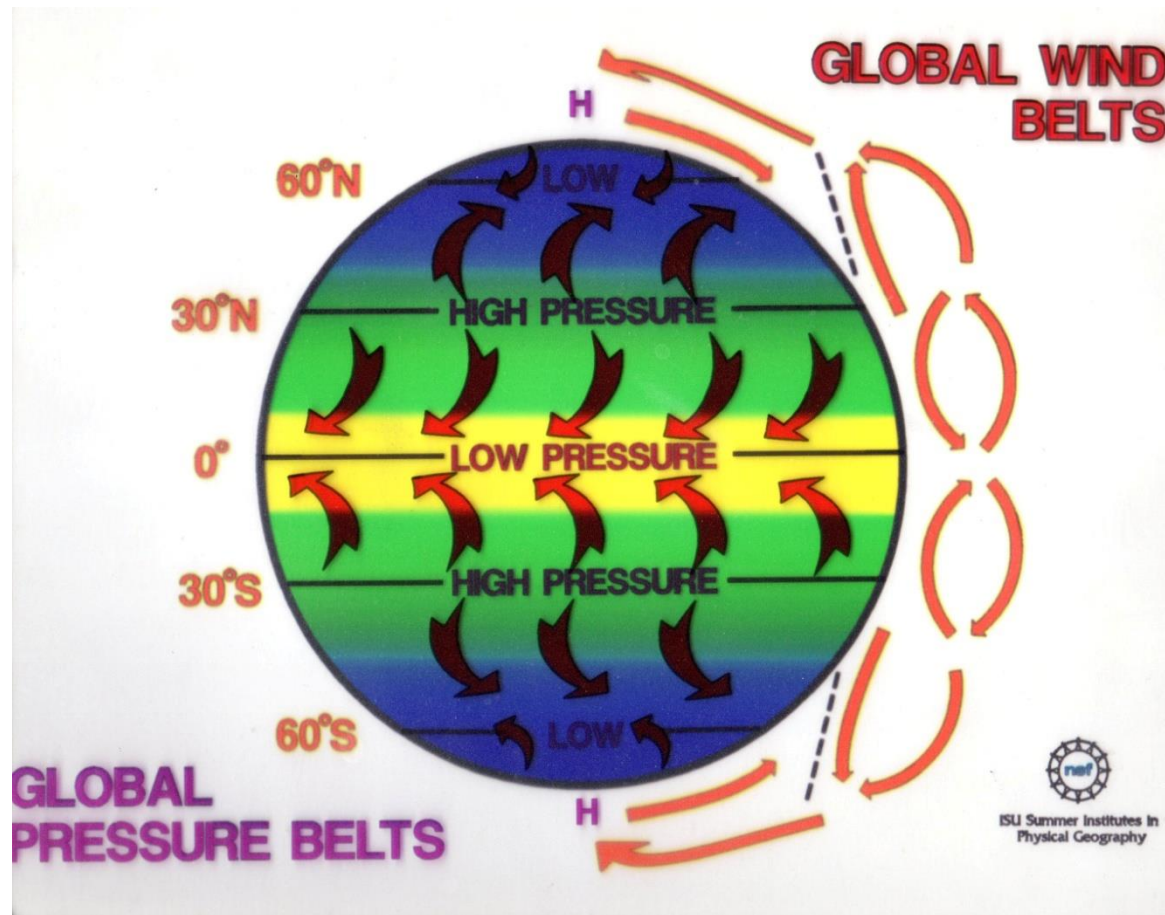
# SO, HOW DOES THIS AFFECT THE EARTH?




# WHAT IS THE CONSEQUENCE OF HEATED AIR?



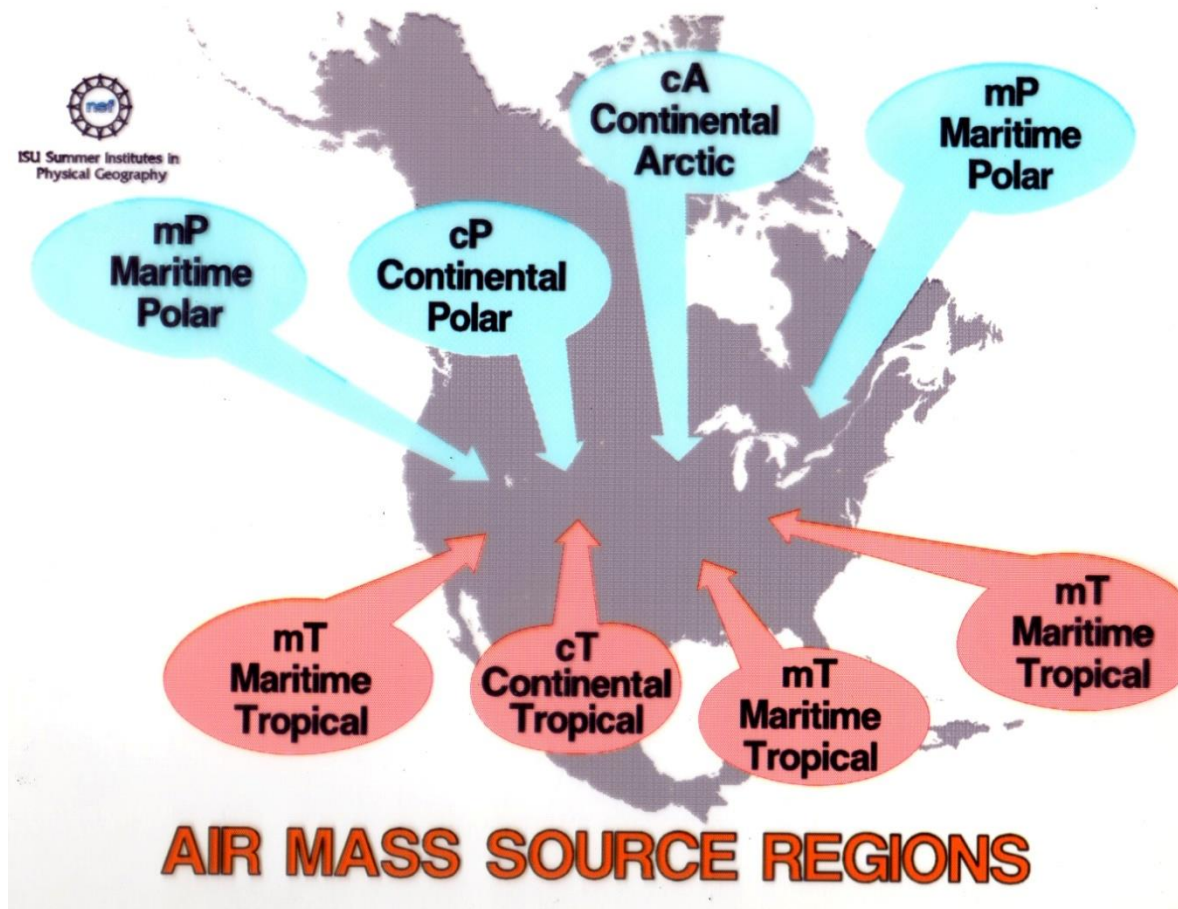
# BUT WHAT ABOUT THE ROTATION OF THE EARTH?





**SO THAT'S WHY  
WEATHER MOVES  
FROM WEST TO  
EAST IN THE UNITED  
STATES.**

# FACTORS THAT INFLUENCE WEATHER PATTERNS



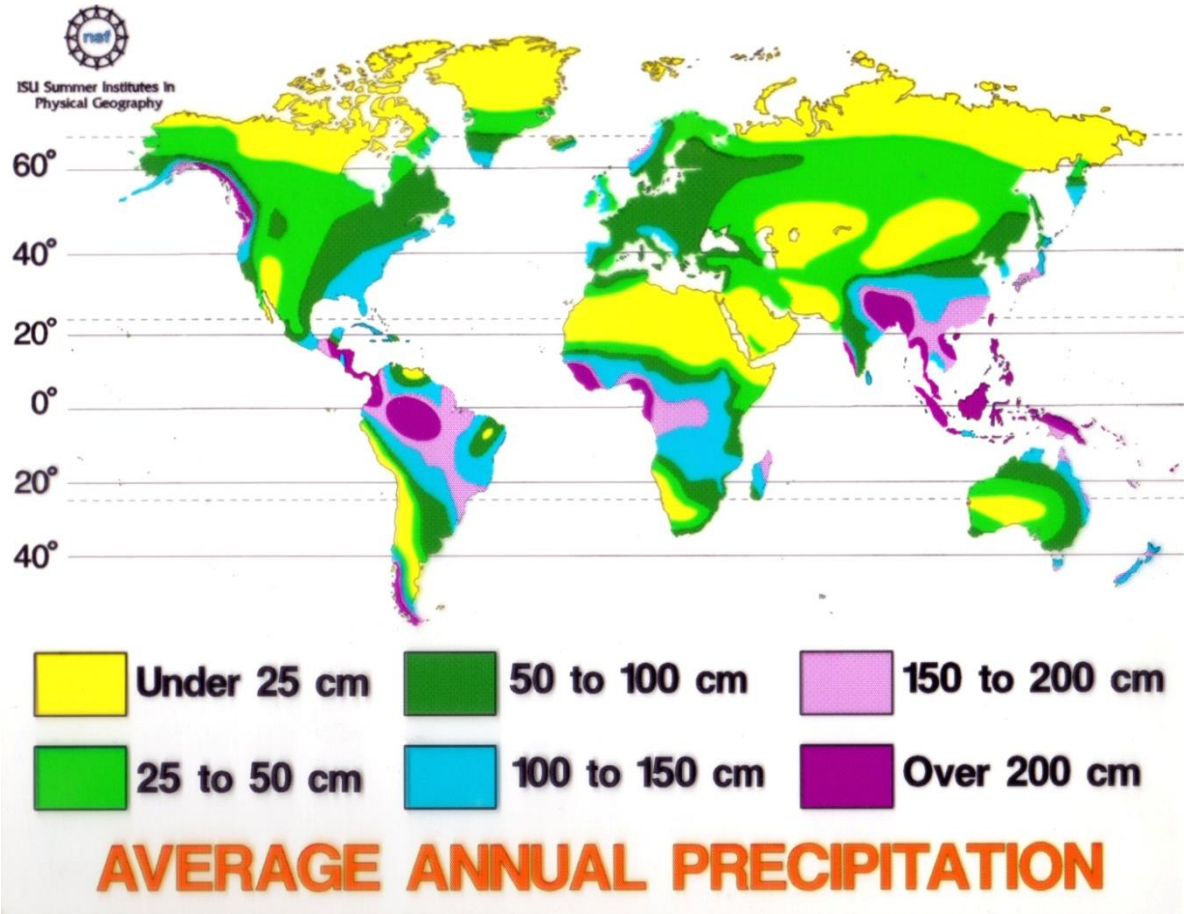


A tropical beach scene with palm trees in the foreground and turquoise water in the background. The sky is blue with some clouds. The text is overlaid on a white rectangular background in the upper right quadrant.

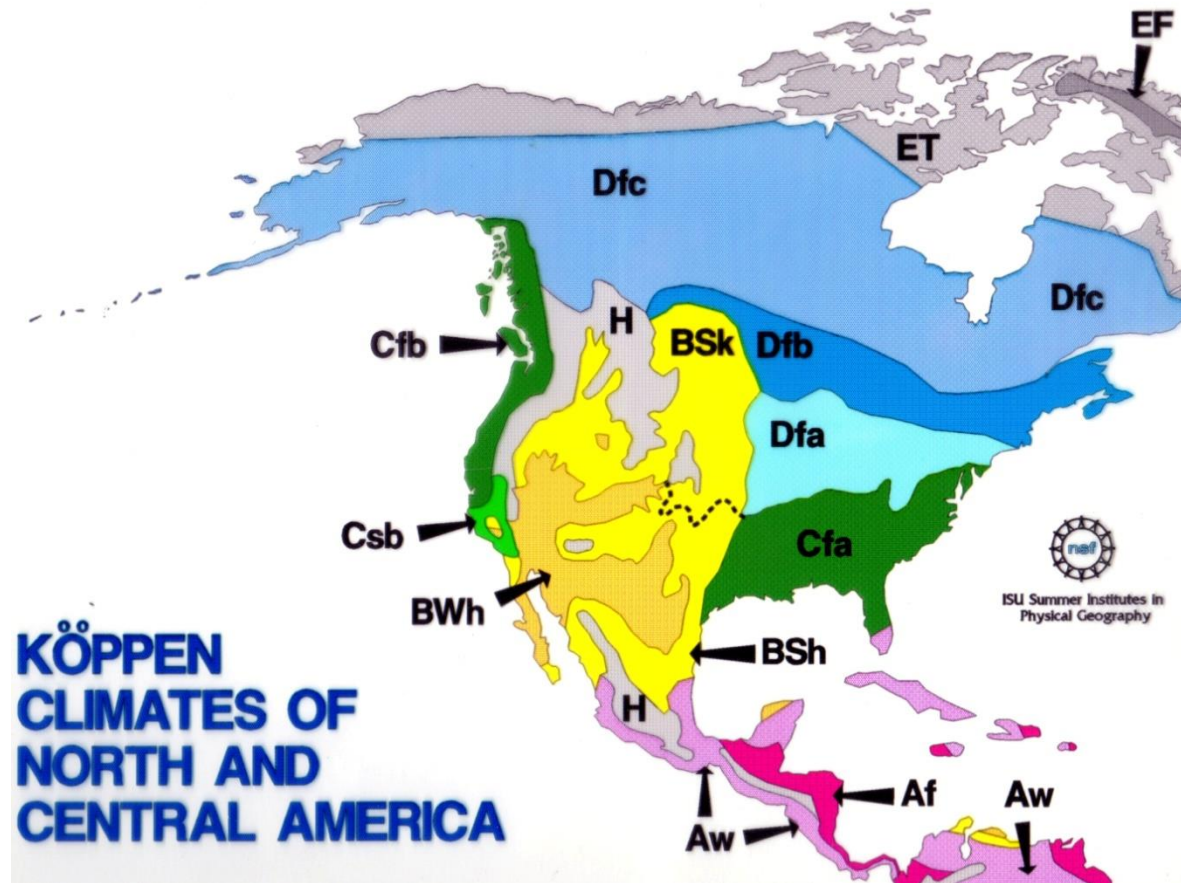
**WHAT ABOUT ALL THE  
WATER ON THE  
PLANET?**



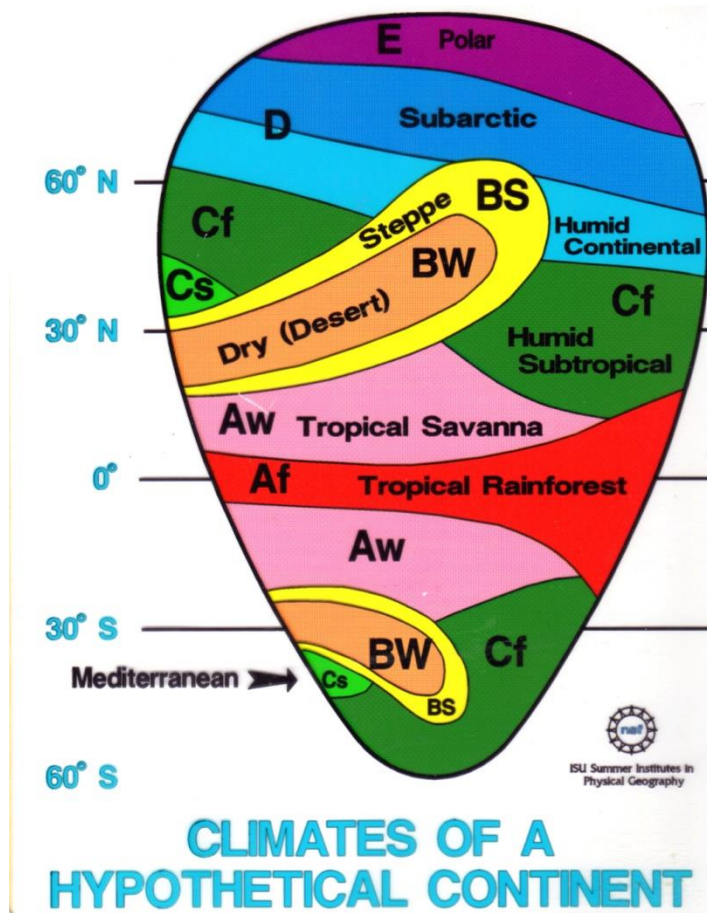
# PREVAILING WIND PATTERNS PROXIMITY TO WATER AND THE VEGETATION IN AN AREA HAVE A BIG IMPACT.



# WHAT ABOUT TOPOGRAPHY AND WHAT IS “RAIN SHADOW”?



SO, IF WE HAD A HYPOTHETICAL CONTINENT,  
IT'S BIOMES WOULD LOOK LIKE THIS?





IN SUMMARY, BIOMES ARE AFFECTED BY

- Amount , angle & seasonal tilt of solar radiation
- Amount of land verses water in a given area
- Distance away from a large body of water
- Prevailing wind patterns
- The type and amount of plants and vegetation
- Geographic features like valleys and mountains