




CLIMATOLOGY

The Study of World Biomes



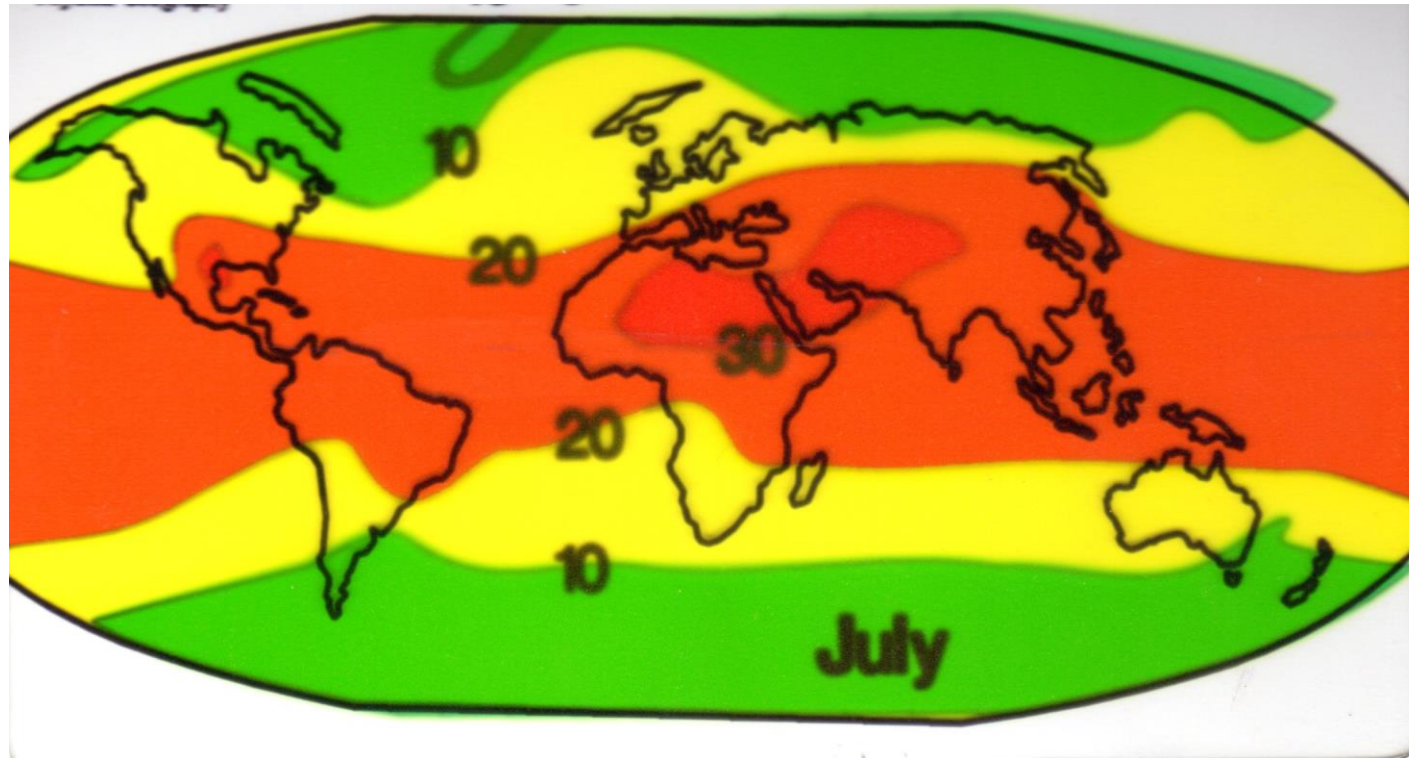
DO BIOMES JUST HAPPEN BY ACCIDENT?

What factors make up a biome?

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

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

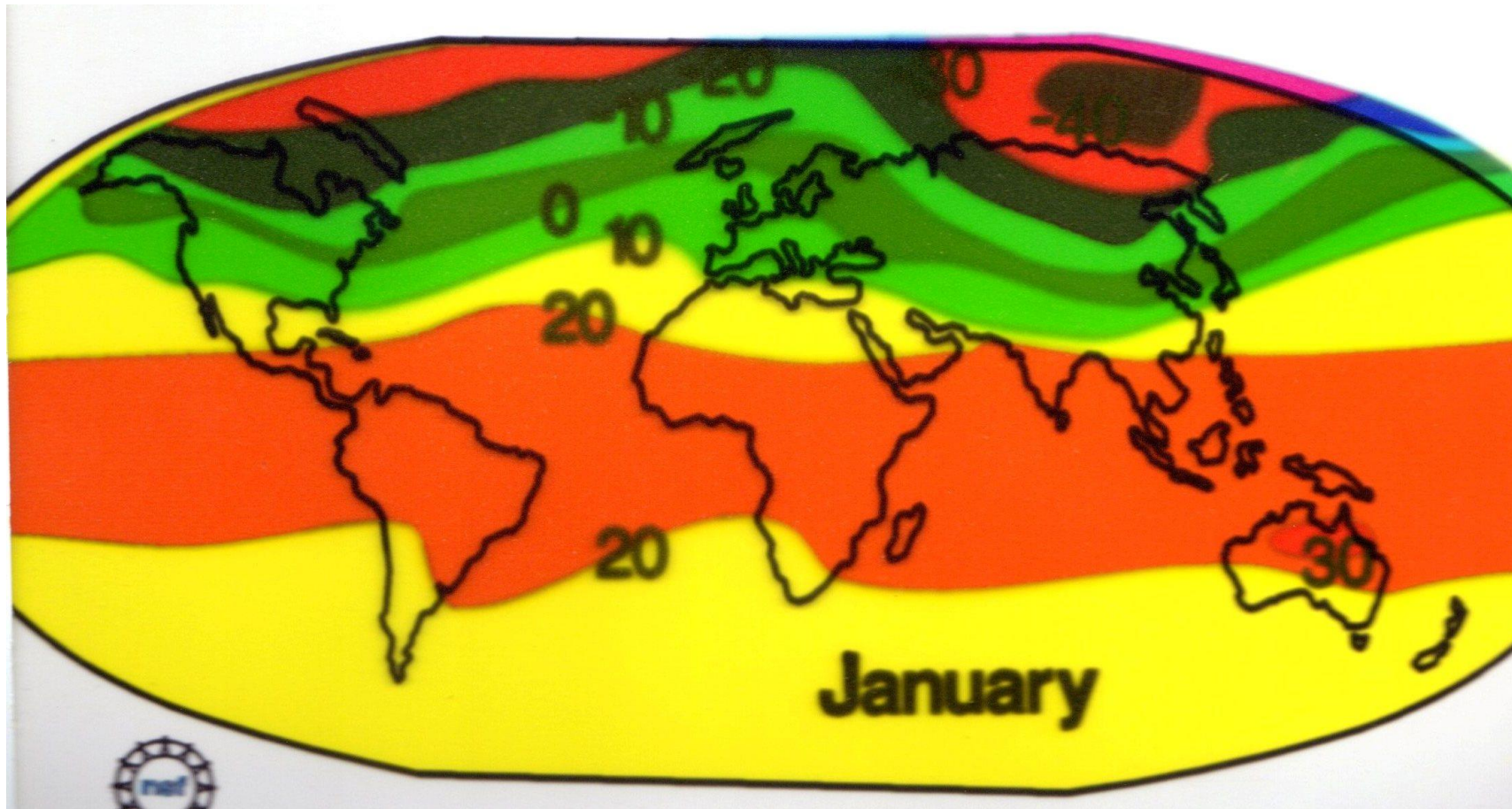
DEATH VALLEY, ARIZONA



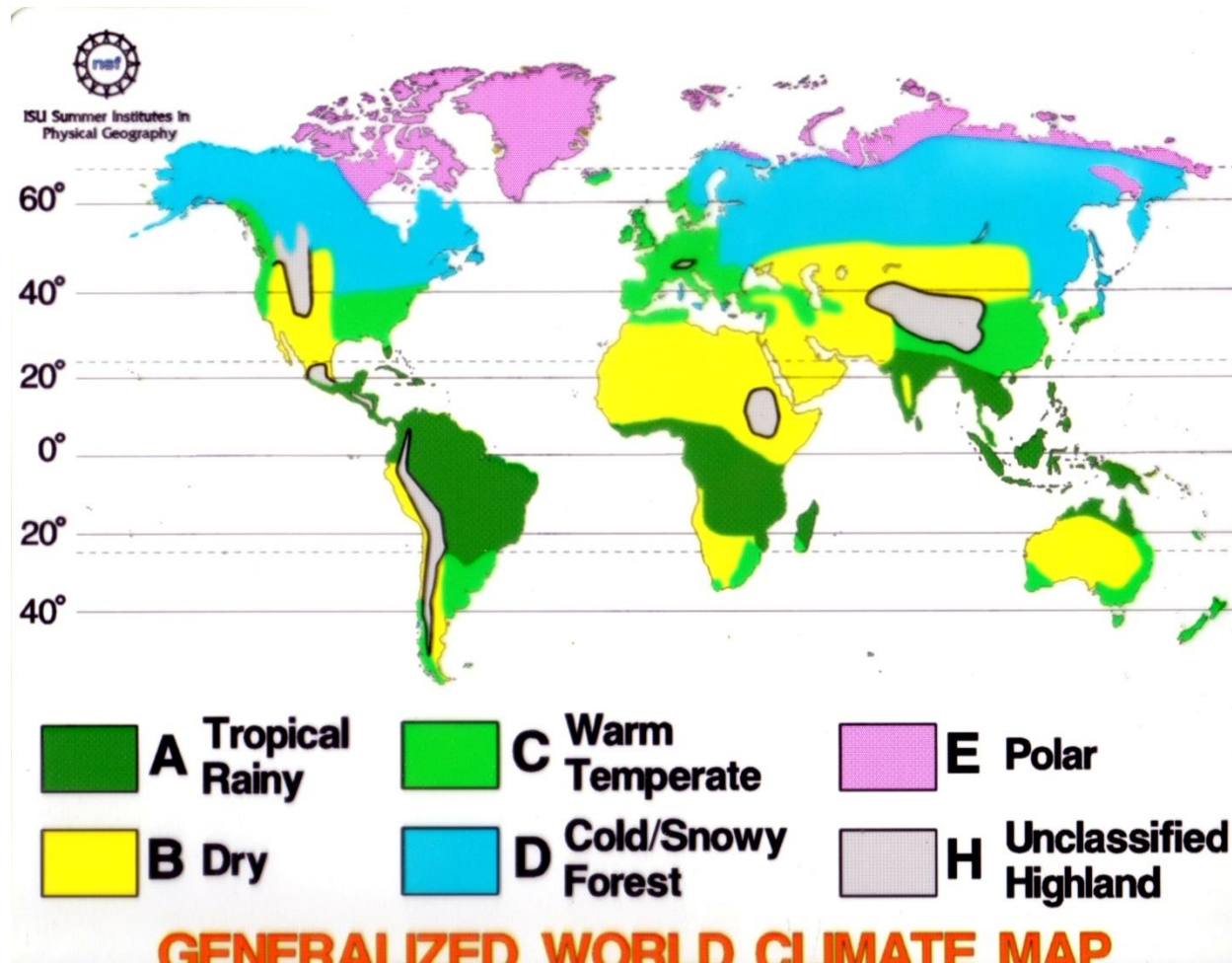


SO, WHERE'S THE
COLDEST PLACE
ON EARTH?

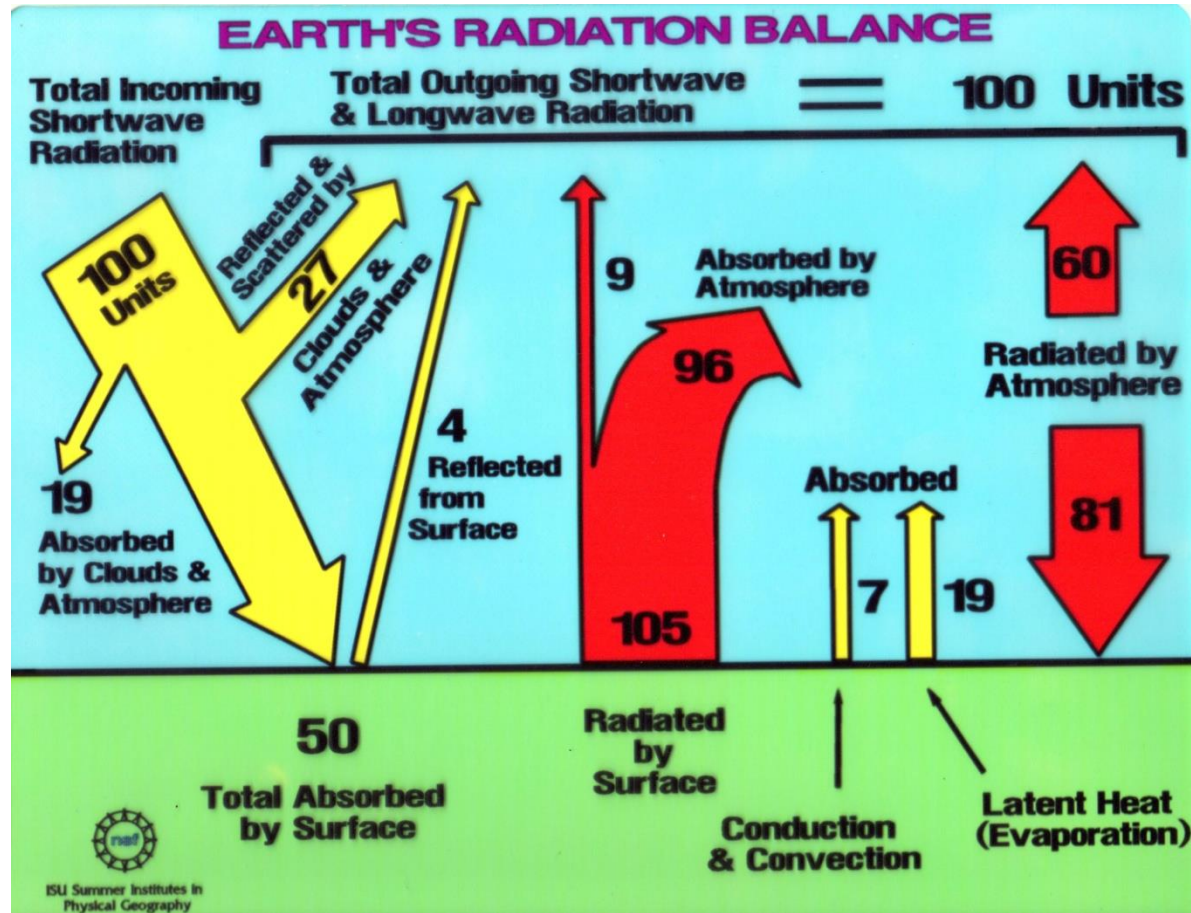
SIBERIA, RUSSIA & THE ARTIC CIRCLE



SO HOW IS THAT POSSIBLE?



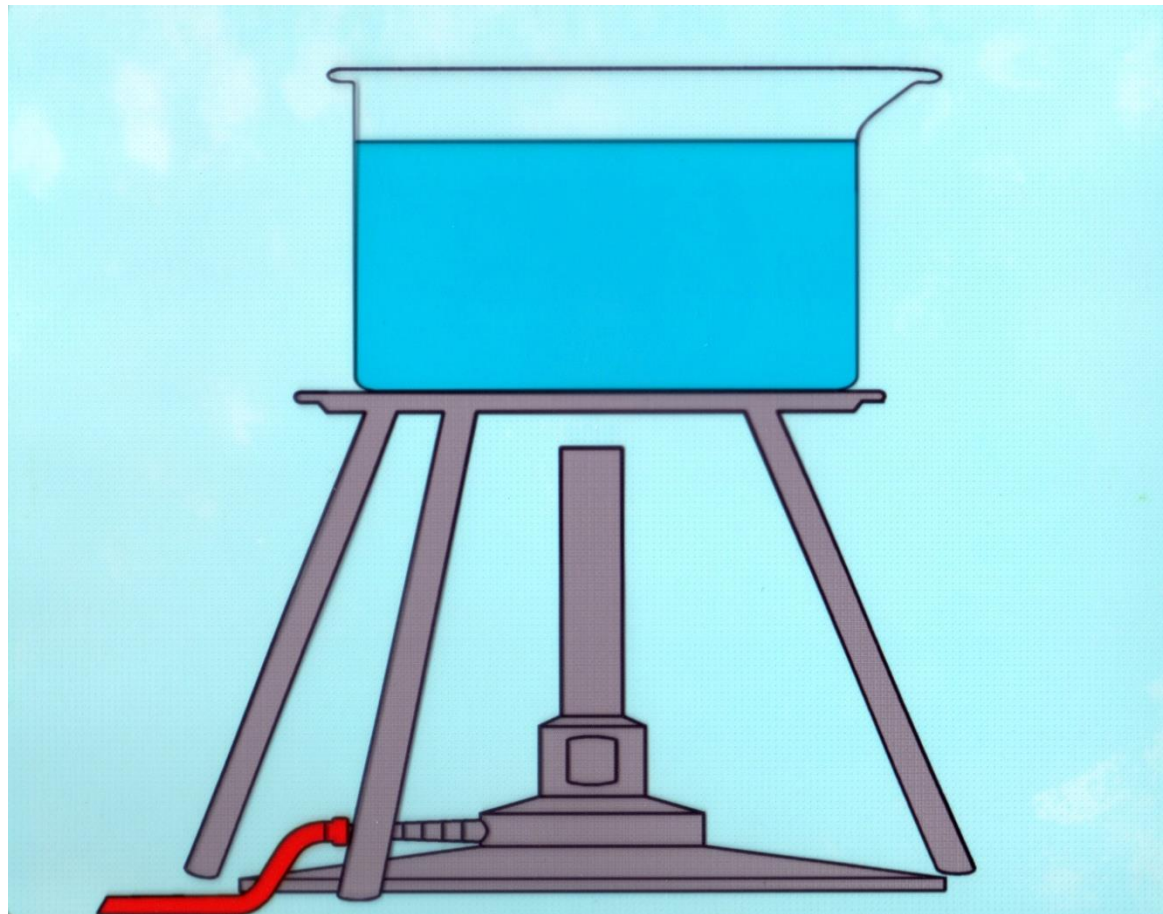
SO WHERE DOES ALL THE ENERGY FROM THE SUN GO?



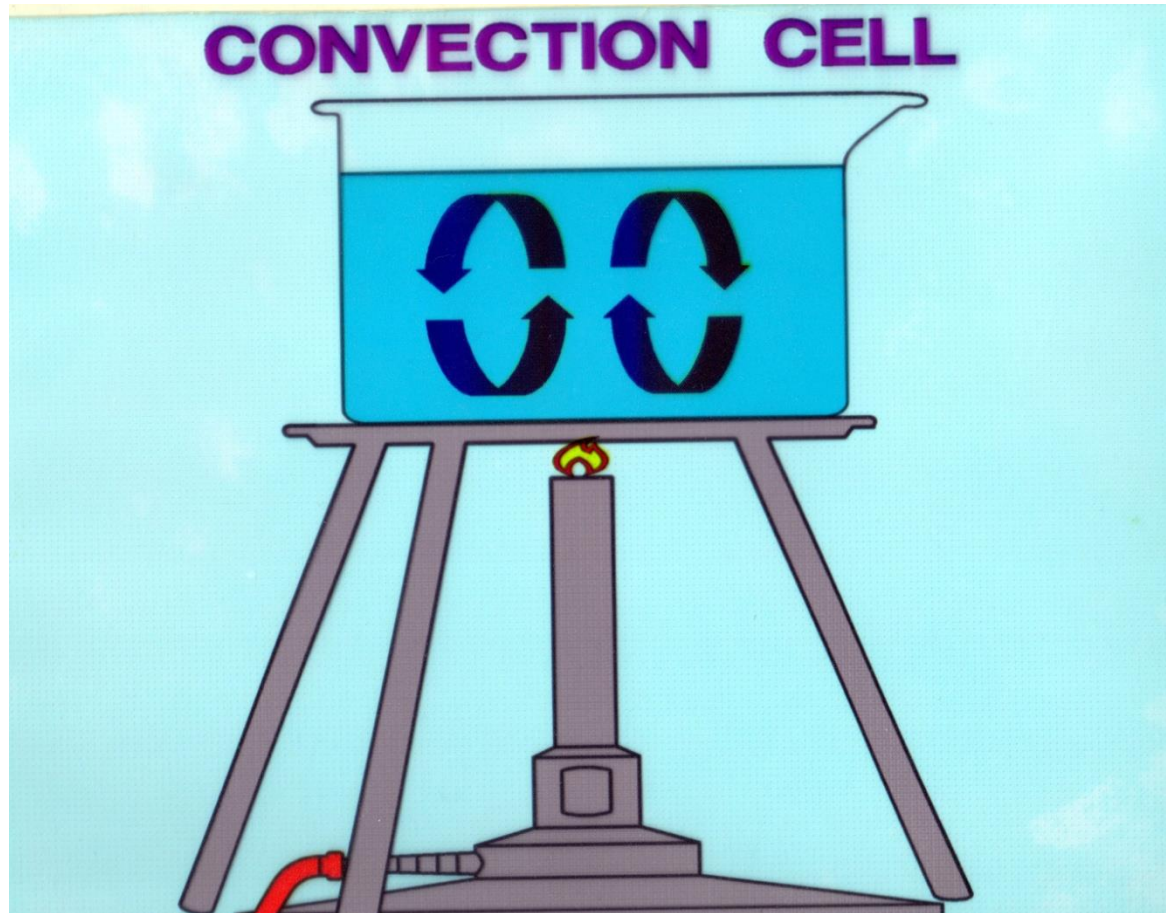
The background of the slide is a soft-focus image of autumn leaves in various colors including red, orange, yellow, and green. A large, prominent leaf in shades of red and orange is on the left side. Other smaller leaves in yellow and green are scattered throughout the scene. The overall lighting is warm and bright, suggesting a sunny day.

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

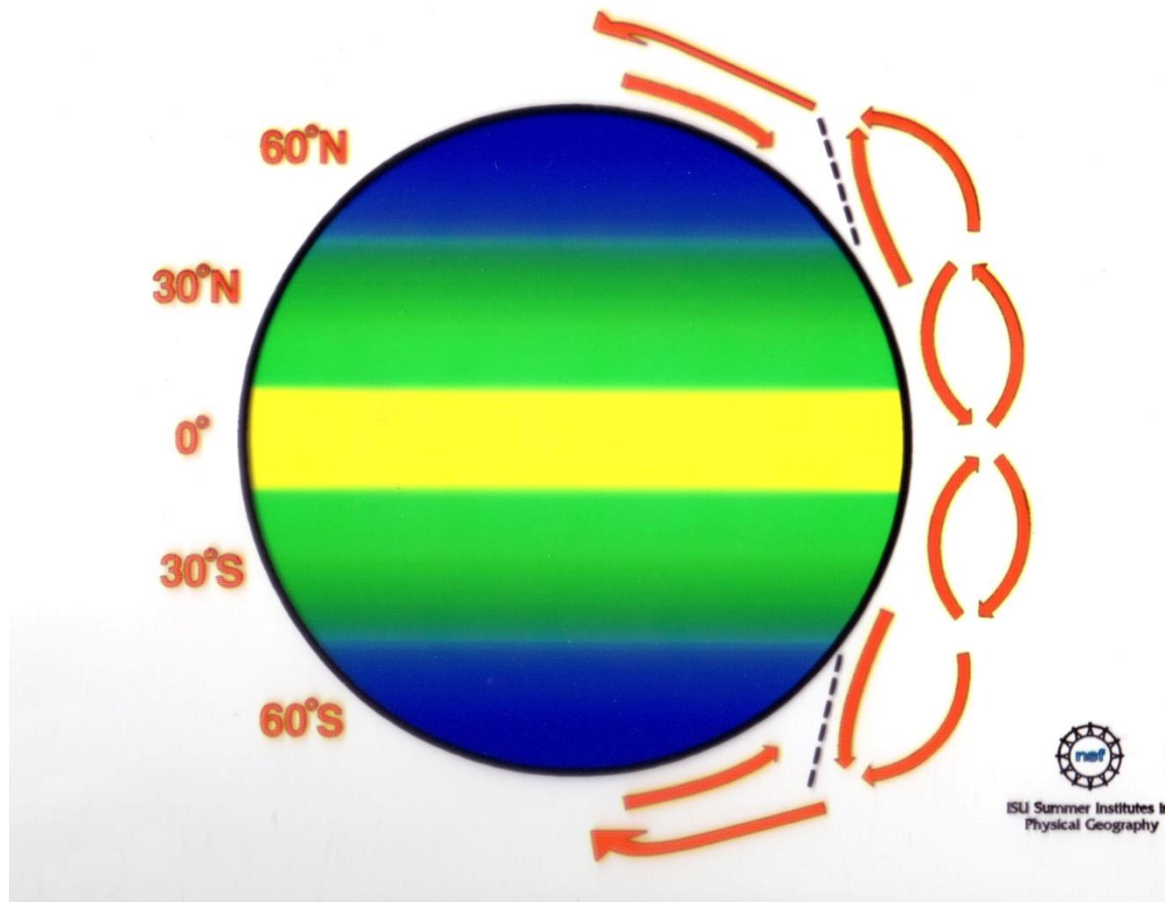
WHAT HAPPENS WHEN YOU HEAT A BEAKER OF WATER?



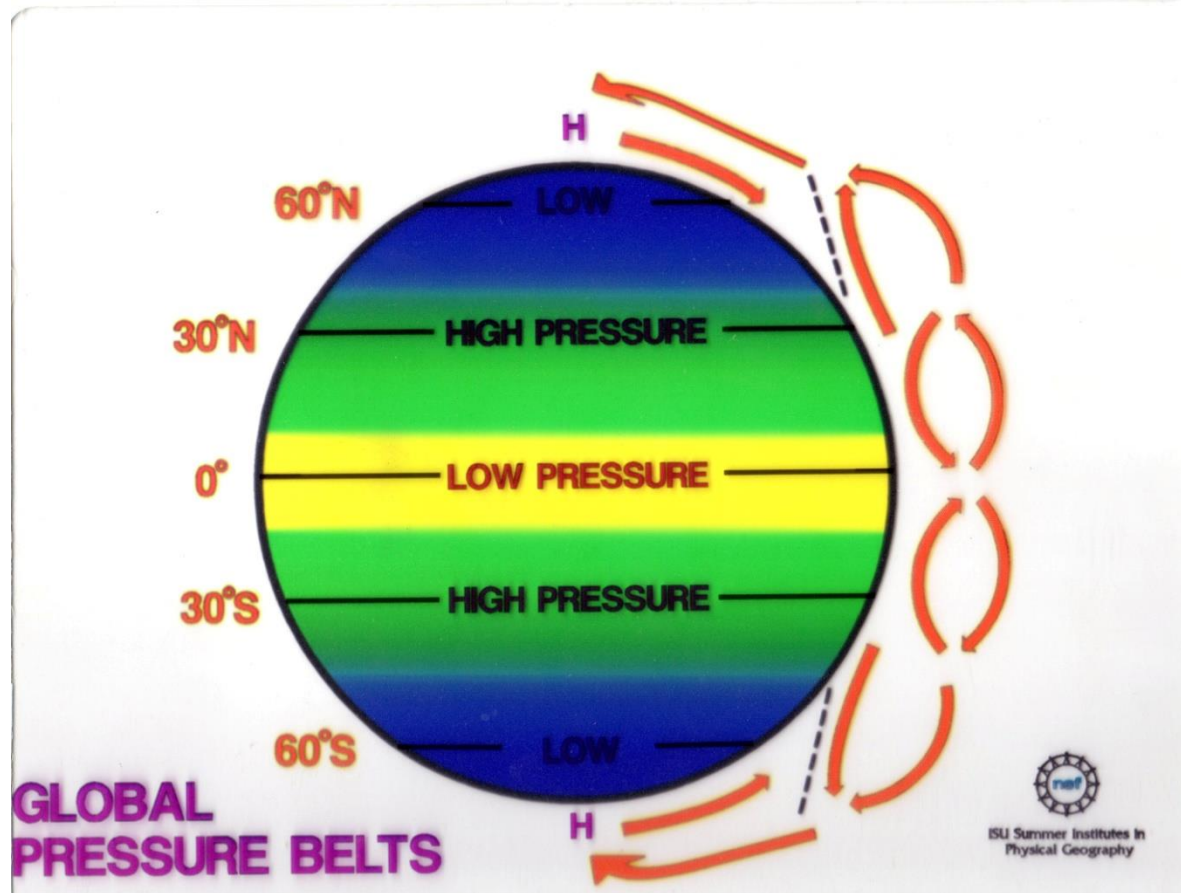
WHAT HAPPENS WHEN YOU HEAT A BEAKER OF WATER?



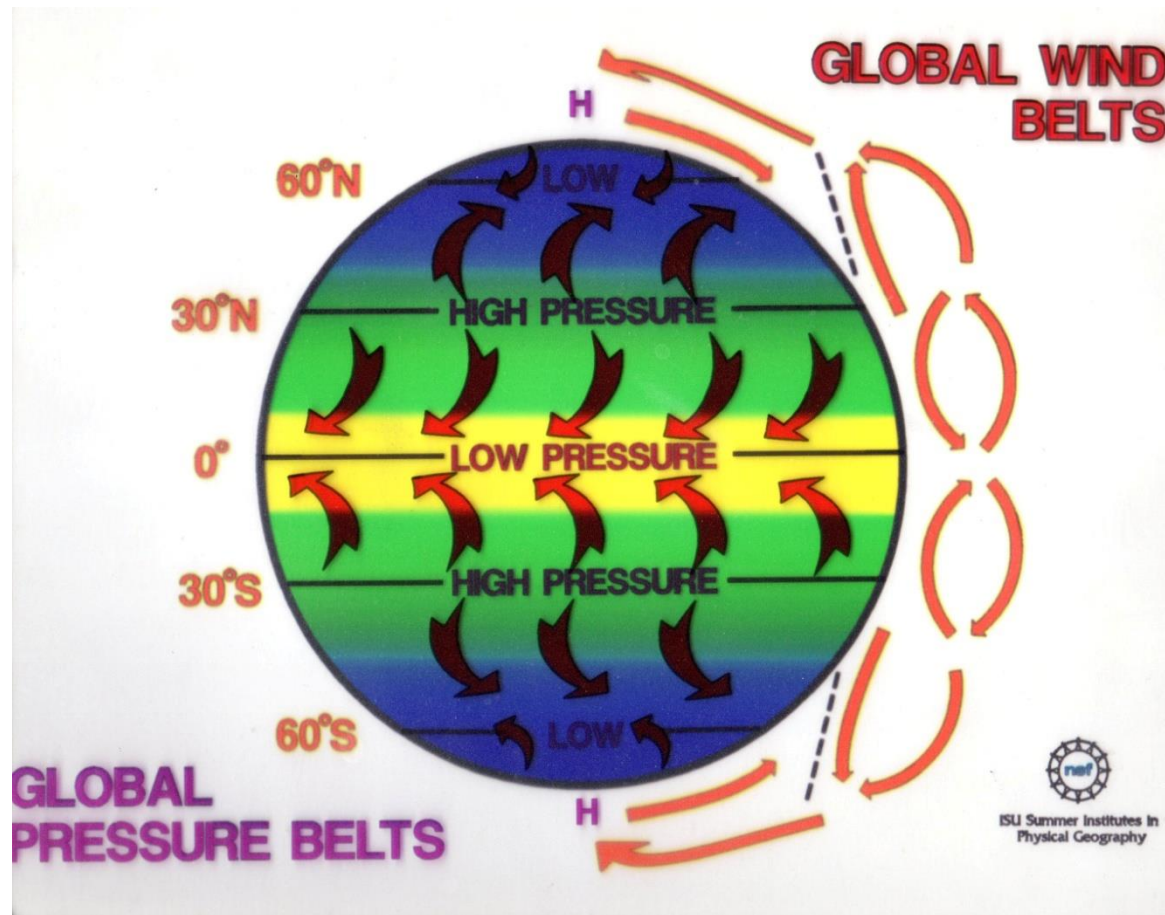
SO, HOW DOES THIS AFFECT THE EARTH?




WHAT IS THE CONSEQUENCE OF HEATED AIR?



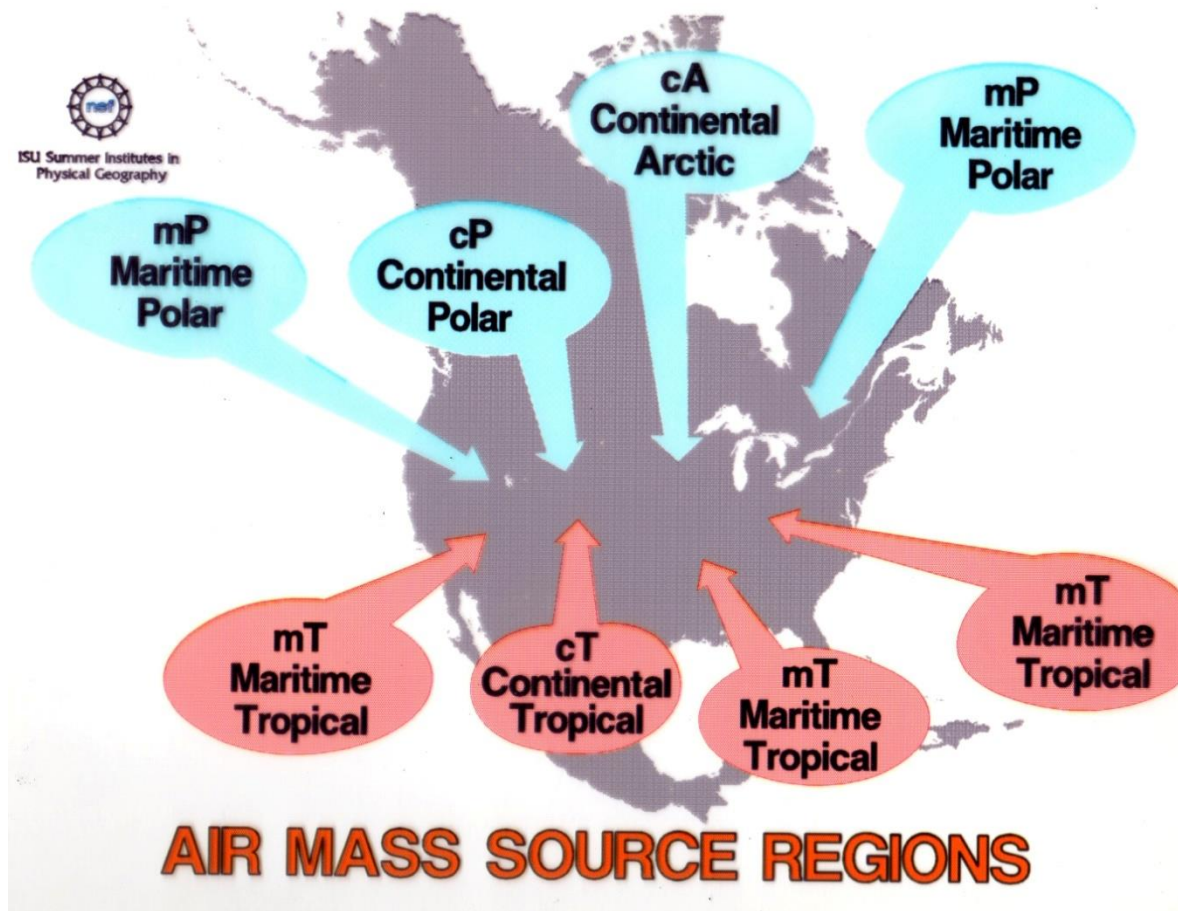
BUT WHAT ABOUT THE ROTATION OF THE EARTH?





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

FACTORS THAT INFLUENCE WEATHER PATTERNS

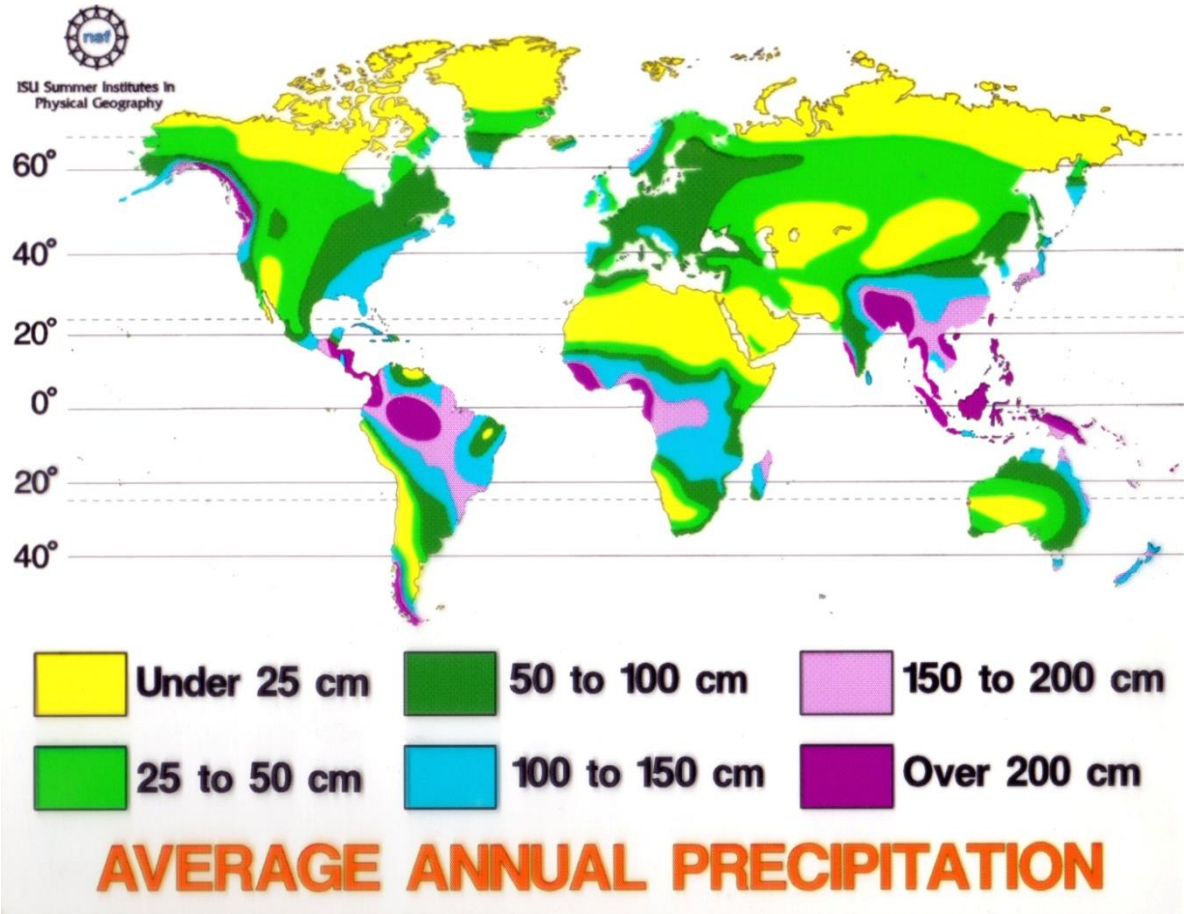


A tropical beach scene with palm trees in the foreground and turquoise water in the background. The sky is blue with some clouds. The text is overlaid on a white rectangular box in the upper right quadrant.

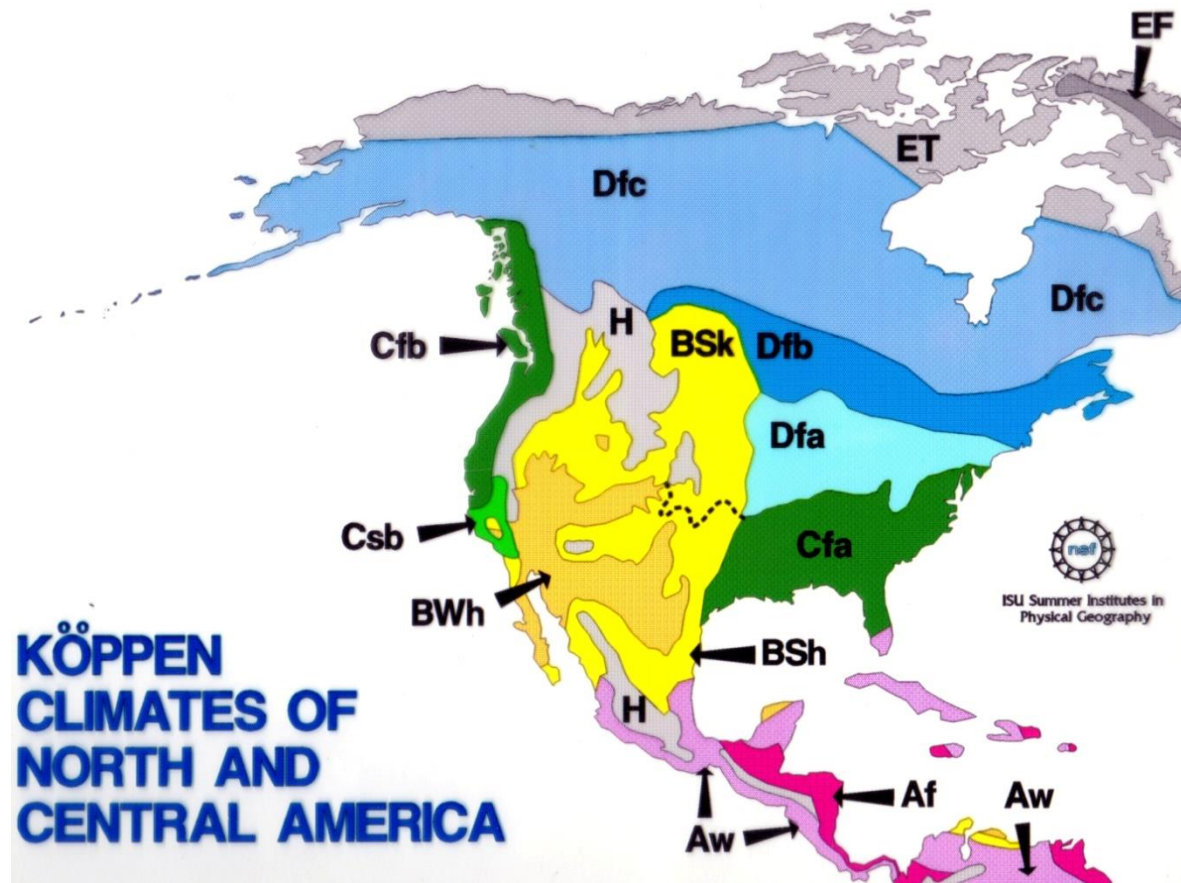
**WHAT ABOUT ALL THE
WATER ON THE
PLANET?**



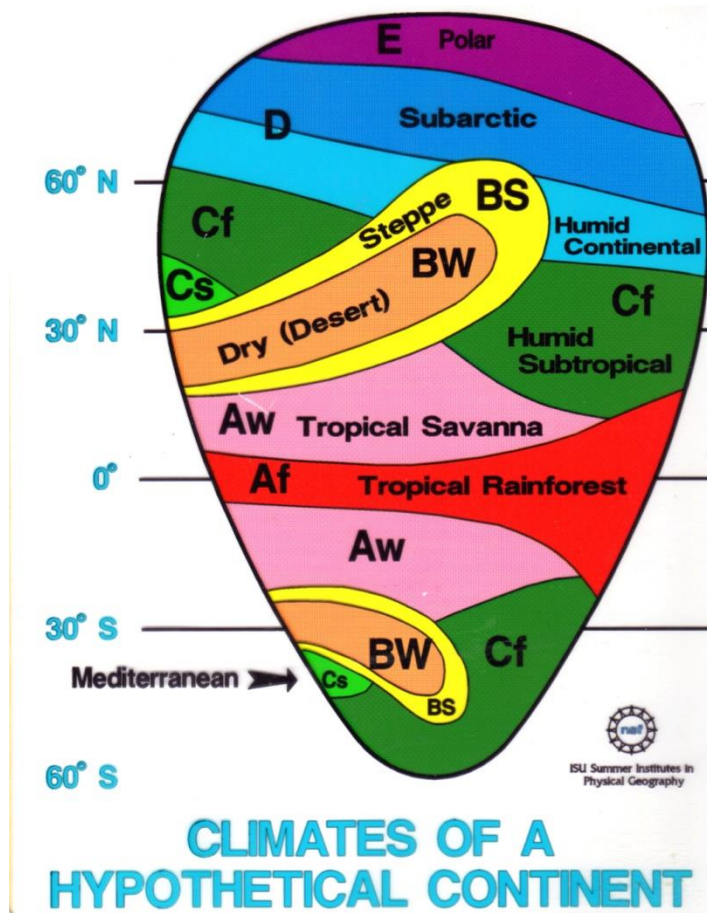
PREVAILING WIND PATTERNS PROXIMITY TO WATER AND THE VEGETATION IN AN AREA HAVE A BIG IMPACT.



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