

## Learning Objective

Today we will be able to relate the uneven heating of Earth's surface to the angle of the sun.

After you review these slides, you will construct a model that shows how the Sun unevenly heats the Earth.

**Task:** Before class is over you will create a model showing how the Earth is unevenly heated.

**Just Remember....**

# Think about the flashlight lab...

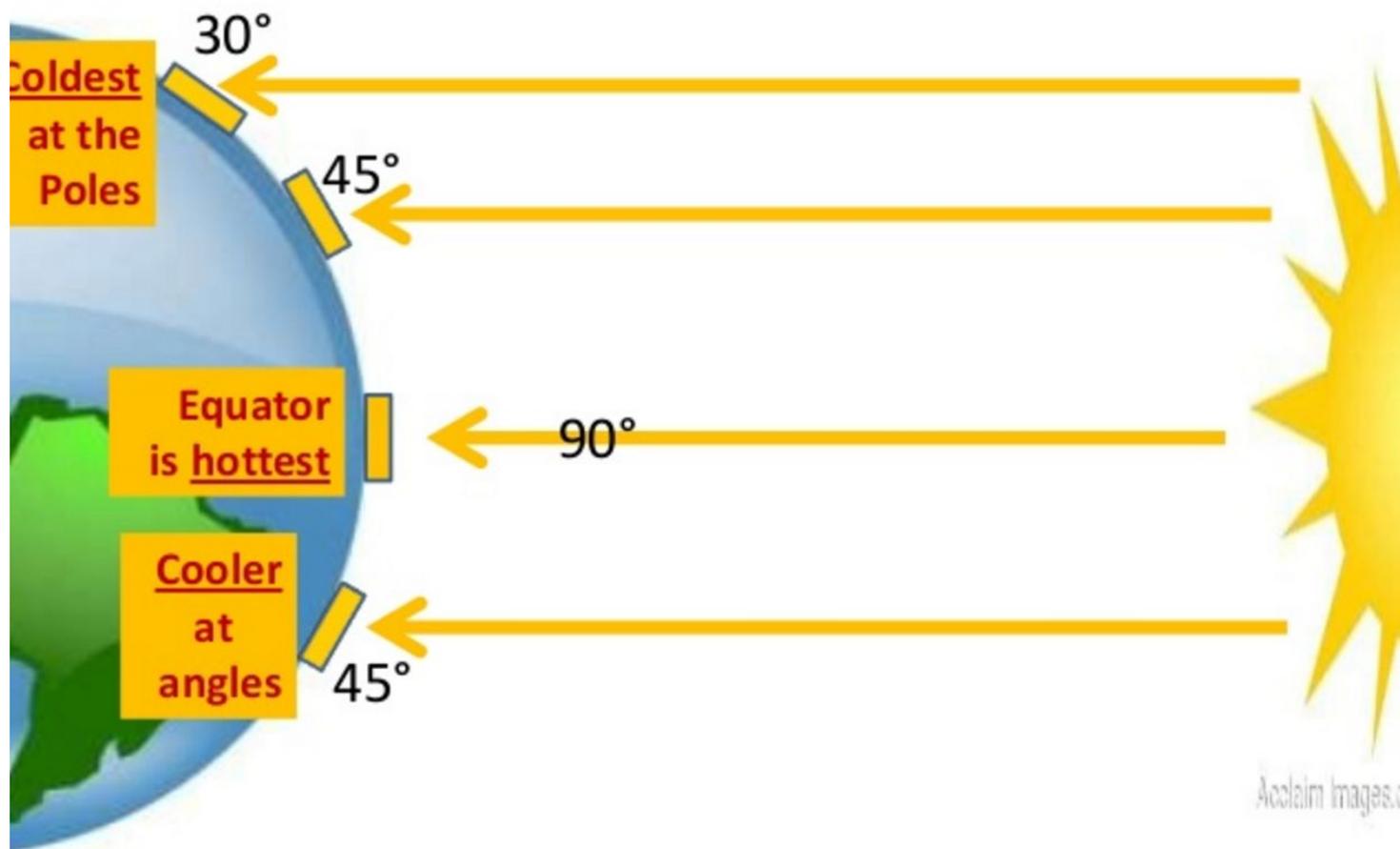
The Earth is unevenly heated because it's a sphere and sunlight is not distributed evenly over its entire surface. Sunlight is more concentrated (hot near the equator) where the sun shines directly compared to where the sunshine is spread out over a larger area (cooler near the poles)

**Instructions:** Choose one of the illustrations for you to model how the Earth is heated unevenly (Scroll down to see the examples). Please follow these instructions:

- 1. Put your full name on one of the bottom corners**
- 2. Give your poster a title**
- 3. Label your illustration**
- 4. Use appropriate colors for your model**
- 5. Take pride in your work**

**Use one the following examples to guide you in making your model or you can design your own. Just remember, it's due today and follow the rules.**

# Curved Earth = Sun rays hit Earth at angles



**North Pole**

**Low angle of sunlight less than 45° means cool temperatures**

**Angle of sunlight between 90° & 45° means less intense heat.**

**Angle of sunlight is directly overhead close to 90° means intense heat**

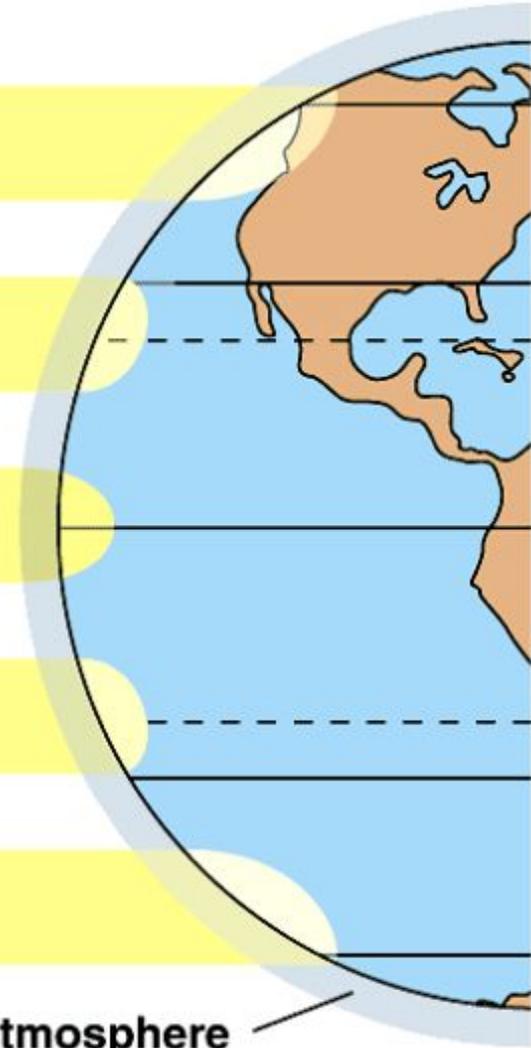
**Angle of sunlight between 90° & 45° means less intense heat.**

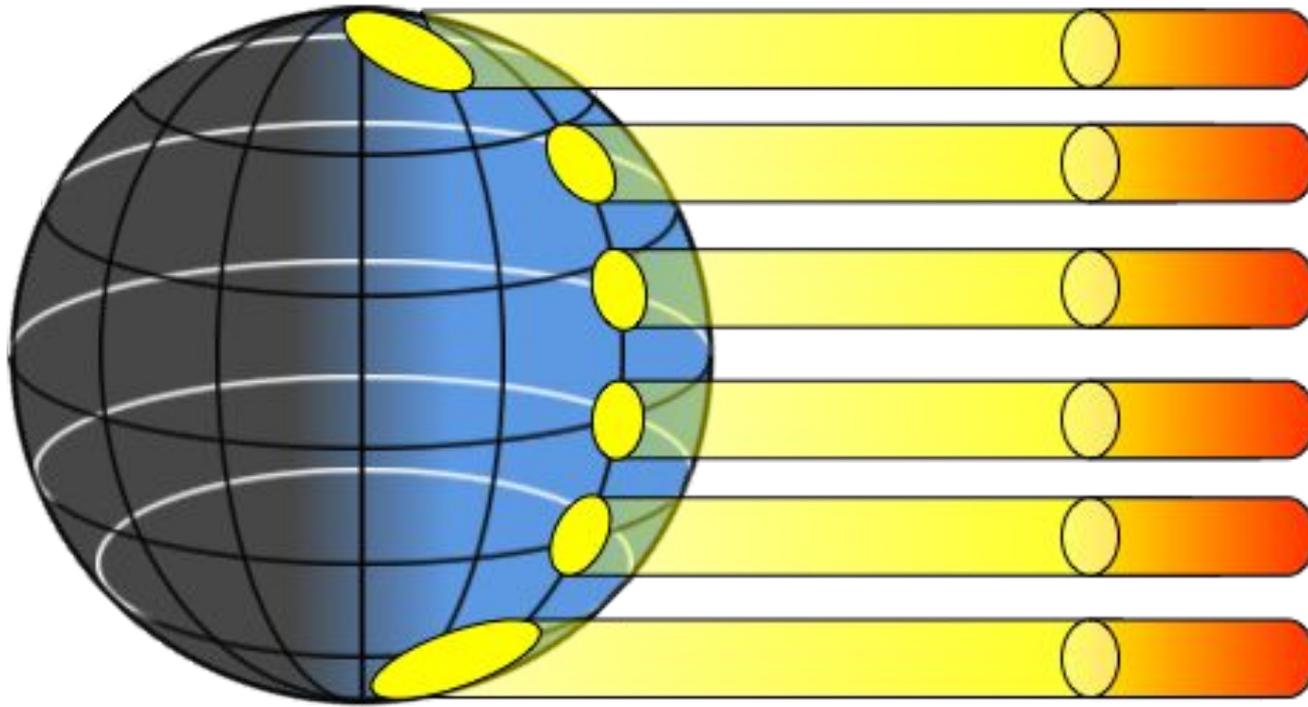
**Low angle of sunlight less than 45° means cool temperatures**

**Atmosphere**

**Equator**

**South Pole**





Sunlight is spread out over a greater area making the energy less intense and cooler temperatures

Sunlight is more direct and more concentrated making the energy more intense and hot temperatures

Sunlight is spread out over a greater area making the energy less intense and cooler temperatures