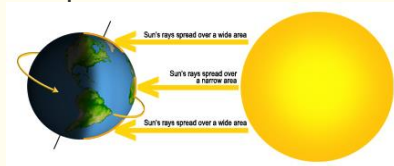


OLDE FASHIONED CHRISTMAS AND WINTER FESTIVALS

Interactive- Winter Solstice: How the Earth Moves

Location: Alcove (Winter Festivals)

Instructions: Give each student a small styrofoam ball, a rubberband, a pin, and a skewer. Put the Styrofoam ball on the end of the skewer and the rubberband around the center of the ball to represent the equator. Have students draw the globe on the ball and then try to put the pin about where Idaho is on the globe. You can then have them use a flashlight or a yellow circle of paper as the sun. Hold the sun in one hand and the Styrofoam ball in the other (this represents earth). The equator is marked with a rubberband, and the location of Idaho is marked with a straight pin. First, explain to students that the earth is tilted towards the sun in space. Tilt the earth as shown in this picture towards the sun as shown in this picture.



Next, explain that the earth spins. Making sure the earth is still tilted, spin the earth by turning the skewer in your fingers. When the pin is pointed towards the sun, it is daytime, when it points away, it is nighttime in Idaho.

Finally, explain that, in addition to being on a tilt and spinning, the earth rotates around the sun. Do this by moving the Styrofoam earth in one hand, around the sun in the other hand. Try to keep the earth tilted and spinning at the same time. Explain that the winter solstice happens when the Northern Hemisphere points away from the sun, causing shorter days and less direct sunlight. Use the picture below for reference.

