SEASONS DAY 4: SUN-ANGLE AND ENERGY

1. Modeling light from the Sun:

Using the Little Bits light sensors, model what happens when sunlight hits the ground at different angles. Explore how Sun angle affects energy we receive from the Sun (and therefore, temperature).

A) COLLECT DATA:

Complete this table with your group:

Sun Angle (in degrees - °)	**Intensity of Light** (Number from Little Bits sensor)
90°	
60°	
30°	
10°	

B) COMPARE AND ANALYZE:

a. At which Sun angle is the light most intense/direct? _____

b. When sunlight is more intense/direct, the temperature will be _____ .
<warmer/cooler>

c. At which Sun angle is the light least intense/direct? _____

d. When sunlight is less intense/direct, the temperature will be _____ .
<warmer/cooler>

C) RECORD YOUR IDEAS:

Based on what we have learned so far, explain ***why*** you think it is warmer in the summer than in the winter. Try to connect what you have learned about how the sun appears to move in the sky during different seasons; how the Earth's axis affects the mid-day Sun angle; and how the Sun's angle in the sky affects the intensity of light we receive.

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