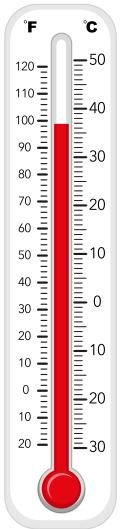# SEASONAL TEMPERATURES

Have you ever noticed how cool and crisp fall evenings feel compared to the warm afternoons? Fall is the perfect season to explore how the temperature changes throughout the day. Let's experiment to investigate the difference in temperature from morning to night in autumn.

INSTRUCTIONS:

STEP 1: Question: How does the temperature change from day to night during fall?

STEP 2: Hypothesis: I think the temperature will drop by at least 10°F at night during fall.

SUPPLIES
Thermometer
Notebook or graph paper
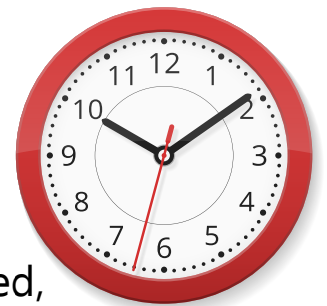Pencil
Clock or timer

STEP 3: Experiment: Record the temperature outside at the same location and time each day for one week. Check and note the temperature three times a day: in the morning, afternoon, and evening.

STEP 4: Observation: Collect data for one week, then compare the temperature changes at different times of the day.

STEP 5: Conclusion: Analyze the data to determine how much the temperature typically drops from day to night during fall.

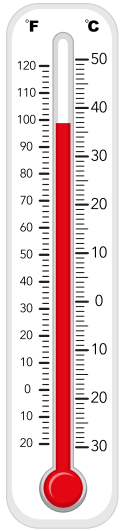Did the temperature drop by 10°F or more as predicted, or was the change smaller?

THE SCIENCE

As the Earth rotates, the sun warms different parts of the planet at different times. During the fall, shorter daylight hours and less direct sunlight cause temperatures to cool down at night. Investigating temperature changes helps us understand the concepts of heat energy, radiation, and the Earth's seasonal tilt. Understanding how temperature fluctuates day and night is key to exploring weather, climate, and the earth's atmosphere.

JOURNAL OBSERVATIONS

DAY	MORNING TEMP	AFTERNOON TEMP	EVENING TEMP	DIFFERENCE (AFTERNOON-EVENING)
DAY1				
DAY 2				
DAY 3				
DAY 4				
DAY 5				
DAY 6				
DAY 7				

How to use:

Morning: Record the temperature in the morning at the same time each day.

Afternoon: Record the temperature during the warmest part of the day.

Evening: Record the temperature at night, possibly before bed.

Difference: Subtract the evening temperature from the afternoon temperature to observe the temperature drop.