

Experiments and

Unit 3

Experimenting with Sensors

In Unit 3, you learn how to use the BasicBoard to take data from temperature and light sensors. You then use them to conduct a variety of experiments.

Energy Conversion

How do mud-based fuel cells produce energy?

Mud-based Fuel Cell

When illuminated, is it warmer under a dark or light piece of paper? Why?

Absorption

Light & Energy

How can solar cells return the maximum power from a given solar panel?

Solar Cell

What keeps soil from washing away when it rains?

Erosion

How do we measure the moisture in soil?

Soil Moisture

Evaporation

How does the temperature change when water evaporates?

Water & Soil

How does a night light work?

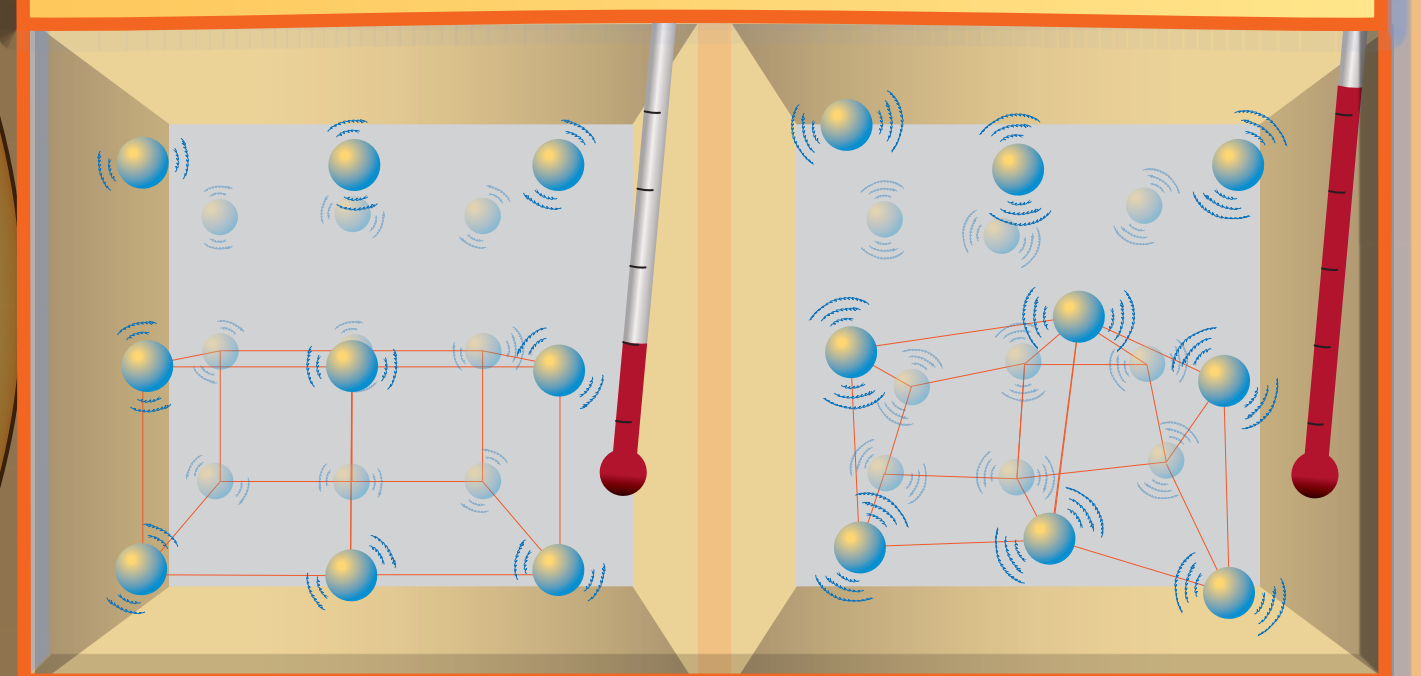
Build a Night Light

How does the temperature of a wood block compare to that of a metal block?

Heat and Temperature

Temperature

is a measure of the random motion of particles. Increasing the motion (kinetic energy) of the particles increases the temperature.



Data from sensors are usually transmitted in the form of packets that have built-in error detection.

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