

BUILD IT YOURSELF

Measure Motion With a Seismograph

SUPPLIES: metal or plastic clothes hanger, piece of cardboard, masking tape, countertop, several heavy books, low table, string, scissors, marker, sheet of printer paper, block of wood, hammer

Seismology is the study of earthquakes. Geologists are scientists who study the structure of the earth and monitor earthquakes. Make your own seismograph to measure motion.

1 Use the hanger, cardboard, and tape to create a mounting. Tape the hanger's wide ends onto the cardboard. Then, position the cardboard so it lies flat on top of a counter with the hanger's hooked end extending over the edge. Place books on the cardboard to keep it in place.

2 Move the low table beneath the hook of the hanger. Tie one end of the string to the hook. Determine the length of string you'll need to reach from the hanger to the top of the table with the marker tied to the other end. Cut off the necessary length.

3 Place the sheet of paper on the table. Make sure the marker tip touches it. If it doesn't, make adjustments.

4 With one hand, hold the block of wood against the side of the table. With the other hand, carefully tap the block with the hammer. The marker should draw on the paper to illustrate the push and pull of waves. What difference do you notice between push waves and pull waves?

