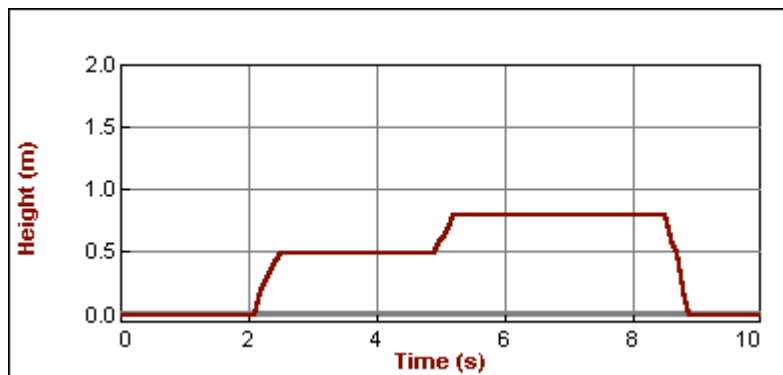


TEACHER INFORMATION

Ocean Floor Mapping

1. The boxes should be at least 50 cm wide.
2. Best results are obtained when the boxes are located touching each other or at least 50 cm apart.
3. The tabletops should be smooth and flat.
4. Boards longer than one meter can be used. They should provide rigid support for the Motion Detector.
5. The hidden arrangement can be located behind a counter or demonstration table.

SAMPLE RESULTS



A Two-Box Simulated Ocean Floor

	Box height (m)
Ocean floor 1 single box	0.14
Ocean floor 2 box 1	0.50
Ocean floor 2 box 2	0.75
Hidden ocean floor box 1	0.18
Hidden ocean floor box 2	0.45
Hidden ocean floor box 3	0.28

Experiment 12

ANSWERS TO QUESTIONS

1. See the Sample Results.
2. Answers will vary.
3. The shape of the graph is similar to the shape of the objects.
4. Real ocean-floor mapping is affected by the water, water temperature, ocean currents, weather, and interfering objects.