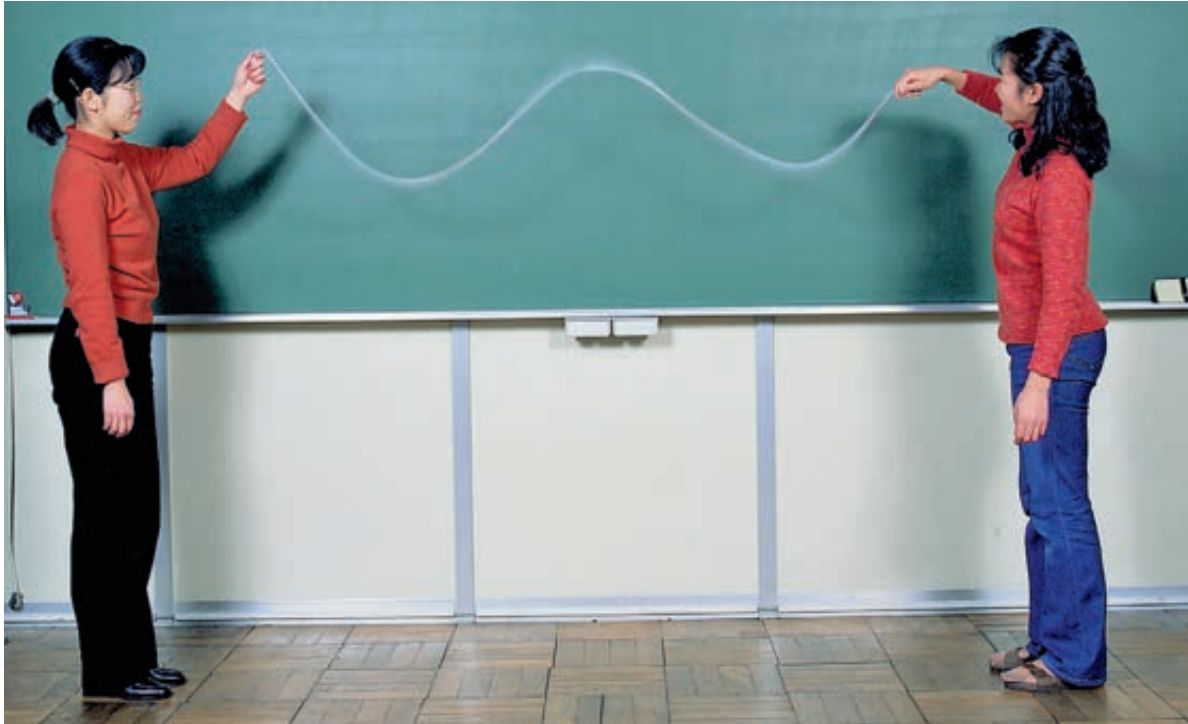


PLASTIC SPRING WAVE

N99-C15-4103



The Plastic Spring Wave can be used to observe phase reversal at the fixed end of wave pulses and to test fundamental and multiple vibrations. It is also used in experiments to determine the speed of propagation of transverse and longitudinal waves. The Plastic Spring Wave is light and non-tangling making it ideal for experiments by students.

TRANSVERSE WAVES

1. Phase of reflected waves
2. Measure wave speed
3. Check wave length and frequency of standing waves



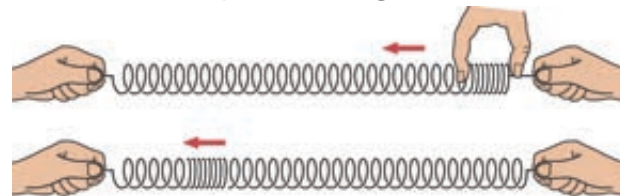
Start transverse waves from both sides as shown. The waves collide with each other, synthesize, disappear, and then appear again. Independence of waves is visualized in this experiment.

SPECIFICATIONS

- Material : Plastic
- Wire diameter : 1.5mm
- Core diameter : approx. 20mm
- Length : approx. 500mm

LONGITUDINAL WAVES

1. Observe longitudinal waves (compressional waves) and phase of reflected waves at the fixed end
2. Measure the speed of longitudinal waves



Compress the spring partially and release. The dense section proceeds to the other end of the spring. Extend the spring partially and release. The thin section proceeds to the other end of the spring. The wave is reflected at the end of the spring in both cases.