

Teachers' notes

Lesson notes

Waves changing media

1) Students will be able to describe what happens to the wavelength and frequency of a wave when it changes speed.

Evaluation

Activity: Changing the media in which a wave travels

1. Insert the line wave generator.
2. Place a blue plastic block in the ripple tank. Make sure that the water covers the block .
3. Turn on the wave generator and observe.

When a wave changes media, it will also change speed.

The frequency of the wave stays the same as it enters the new medium.

As the wave slows down the wavelength decreases,
since:

$$v = f \lambda$$



Activity, cont.:

Place the block at an angle to the wave generator and observe what happens.

Refraction is the change in direction of a wave as it changes speed.

When a wave slows down it bends toward the normal.
When it speeds up it bends away from the normal.



