

1 The diagrams show two waves. Label the waves using words from the box. You may need some labels more than once.

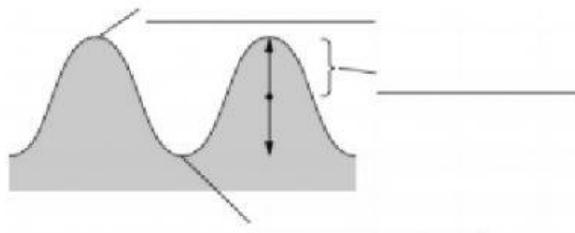
amplitude

crest

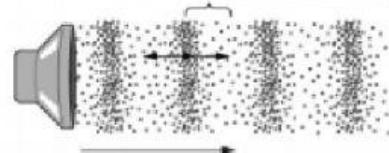
longitudinal

transverse

trough



_____ wave



_____ wave

2 Fill in the gaps in these sentences using words from the box.

amplitude

at right angles

bigger

energy

longitudinal

no

same

spreading

transverse

water

Waves on the surface of water are _____ waves, because the particles are vibrating _____ to the direction the waves are travelling. Sound waves are _____ waves, because the particles vibrate in the _____ direction as the waves travel.

All waves transfer _____. Waves on a pond do not transfer _____ across the pond.

The _____ of waves gets less as they get further from the source. This is because the energy is _____ out.

When two waves meet their effects can add up to make a _____ wave, or they can cancel out to give _____ wave.

3 The table shows some characteristics of waves. Tick the boxes to show which waves each statement is describing. Each row could have one tick, two ticks, or no ticks at all.

Statement	Applies to sound waves	Applies to waves on water
a particles move at right angles to the way the wave is moving		
b can be reflected		
c particles move in the same direction as the wave is moving		
d can involve solids, liquids or gases		
e transverse wave		
f spreads out from source in all directions		
g transfers energy		
h transfers matter		
i longitudinal wave		

The drawing shows two waves. Which statement is correct?



- A X is a longitudinal wave, Y is a transverse wave.
- B X is a water wave, Y is a transverse wave.
- C X is a transverse wave, Y is a longitudinal wave.
- D X is a sound wave, Y is a water wave.

You drop a stone into a pond. What happens to the amplitude of the waves as they travel away from the splash?

- A They get bigger because they are transferring energy.
- B They get smaller because the energy they are transferring is spreading out.
- C They get bigger, because the energy they are transferring is spreading out.
- D They get smaller because their frequency is changing.

When waves on the surface of water reach a solid barrier, they are:

- A reflected.
- B transmitted.
- C absorbed.
- D spread out.

When two waves meet each other, they can:

- A only combine to make a bigger wave.
- B only cancel each other out.
- C reflect off each other.
- D make a bigger wave or cancel each other out.