

# Light Speeds Up!

I could ask the question:

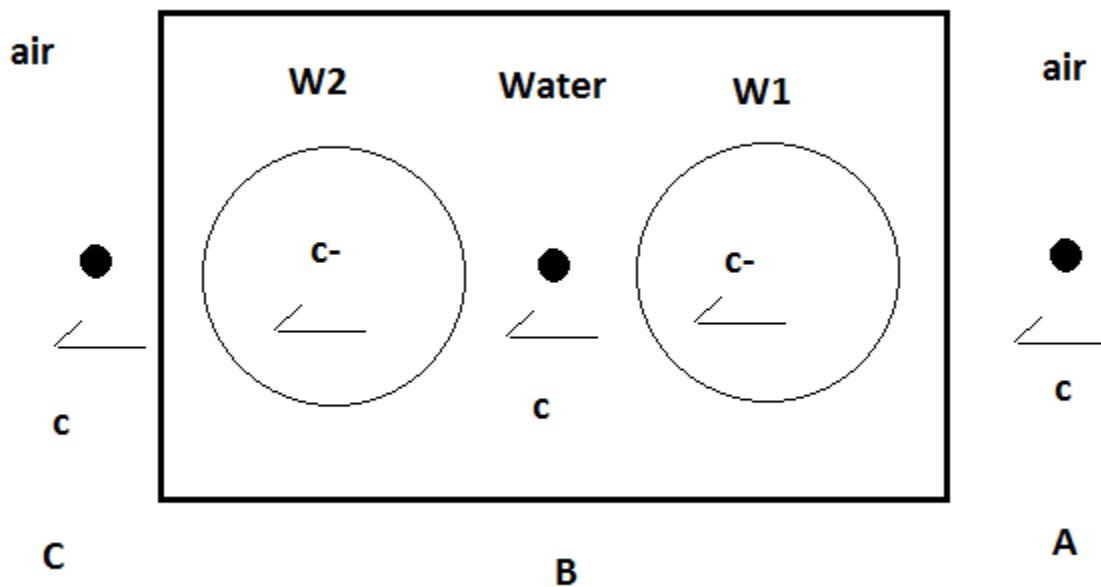
“What causes light to speed up when it moves from water to air?”

As visible light moves from air to water it slows down. It's not too hard to see how that might happen. But what causes light to speed up as it moves from water to air? If you are using a pushing theory, then there must be an object that is pushing it to get it to move at the speed of light in air. The only object is the water.

## The Compton Effect

The Compton Effect shows that as gamma rays hit an aluminum rod, an electron is ejected. What if the gravity object hits water and there is a delay before the water molecule emits a new gravity particle. This would cause the gravity particle to slow down in water. But when the same or another gravity particle is emitted it moves at the speed of light in air.

Here is a model of a gravity particle moving from air to water to air.



Inside the large box is water, outside is air. There are two water molecules in the box. There is a small black dot that represents the flow of the gravity particle. When the particle is in position A, it is moving toward the water at the speed of light in air. It is received by the first water molecule. The same or a different particle is emitted by the water after a small delay. So the speed of the particle through the water molecule is less than the speed of light as determined by water.

The speed between water molecules, position B, may be slow or not. But when it hits the second water molecule it is received by the molecule and re-emitted with a small delay. The added delay through the water makes the velocity slower and explains the Doppler effect.

It is re-emitted at the speed of  $c$  into the air. But the speed in air is the same model with a different delay through the air.

## **Speed of Sound**

The speed of sound can be explained the same way. The speed of sound through air, steel, and water can be explained using a theory of reception and regeneration. How else the speed of sound increase as moves from air to steel and decrease back again when it moves from steel to air?

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