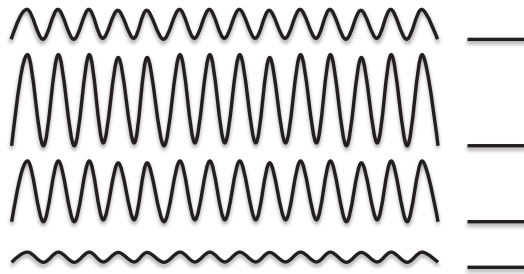


Checkout Questions

Lab 19. Wave Properties

How Do Frequency, Amplitude, and Wavelength of a Transverse Wave Affect Its Energy?

1. Order the transverse waves below from greatest to least energy carried:



Explain your answer. Why do you think the order that you chose is correct?

2. Jalen moves the end of a rope to produce the wave shown below:



Without changing how far up or down he moves his arm, Jalen moves the end of the rope faster than before, working harder to move the rope. Which wave shown below looks like the wave Jalen is now making?

Original Wave:

Option 1:

Option 2:

Option 3:

Explain your answer. Why do you think the wave Jalen is making looks like the option you chose?

3. In science, there is no difference between data and evidence.
 - a. I agree with this statement.
 - b. I disagree with this statement.

Explain your answer, using an example from your investigation about the properties of transverse waves.

4. No matter what is being investigated, conducting an experiment is the best way to develop scientific knowledge.
 - a. I agree with this statement.
 - b. I disagree with this statement.

Explain your answer, using an example from your investigation about the properties of transverse waves.

5. Often, changing one part of a system will cause another part of that system to change as well. Determining the cause of observed effects is an important pursuit in science. Using an example from your investigation about properties of transverse waves, explain why it is helpful for scientists to investigate cause-and-effect relationships in the natural world.
6. Scientists often need to keep track of the movement of energy into, out of, and within systems. Using an example from your investigation about properties of transverse waves, explain why it is important to track how input of energy into a system affects how it behaves.