Waves, Light, and Sound

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. A student claims bigger waves are always longer waves. Which example proves this wrong?

   a short wave with crests close together

   two waves with crests 5 cm apart, one taller than the other

   a tall wave with crests far apart

   two waves that are exactly the same

2. A student holds a rope and moves her hand up and down faster. The crests get closer together. What changed?

   the wavelength got shorter the wavelength got longer the amplitude got bigger

   the rope got longer

3. Two tuning forks make the same note. Fork A is struck harder. What will a listener notice?

   fork A sounds the same fork A sounds quieter fork A makes a light flash

   fork A sounds louder

4. Kim measures waves in a tray: crest to crest is 3 cm, and height above the middle is 1 cm. What are the wavelength and amplitude?

   wavelength 4 cm, amplitude 1 cm

   wavelength 3 cm, amplitude 1 cm

   wavelength 3 cm, amplitude 3 cm

   wavelength 1 cm, amplitude 3 cm

5. During an earthquake, waves travel through the ground. What do they carry from place to place?

   rocks from the center of Earth

   energy that shakes the ground

   the soil from where they started

   water from the ocean

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Answer Key - Grade 4 Science Worksheet - Challenge Me

Circle the answer.

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