Waves, Light, and Sound

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. Two ocean waves pass a pier. One rises 1 meter above the middle line, the other 3 meters. Which carries more energy?
   neither carries energy
   the wave that rises 1 meter
   both carry the same energy
   the wave that rises 3 meters

2. Why can you see a tree outside your window on a sunny day?
   the tree glows with its own light
   the window makes light that reaches the tree
   sunlight reflects off the tree and enters your eyes
   light leaves your eyes and lights up the tree

3. A sound gets quieter as you walk away from a speaker. What is happening to the waves that reach you?
   they are turning into light
   their wavelength disappears
   they have more energy
   they have less energy and smaller amplitude

4. Wave A has crests 2 cm apart. Wave B has crests 6 cm apart. Which is true?
   Wave A has the longer wavelength
   Wave B has the bigger amplitude
   Wave B has the longer wavelength
   both have the same wavelength

5. A boat bobs in place as waves pass. Then the wind grows stronger. What change will the boat show?
   it bobs up and down higher
   it stops moving up and down
   it is carried across the lake with the water
   it bobs more slowly and lower

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Answer Key - Grade 4 Science Worksheet - Challenge Me

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