Waves, Light, and Sound

Grade 4 Science Worksheet - Challenge Me

Name _____ Date _____

Circle the answer.

1. Rope wave A has 2 crests in 1 meter. Rope wave B has 4 crests in 1 meter. Which has the shorter wavelength?
   - they have the same wavelength
   - Rope wave B
   - Rope wave A
   - you need the amplitude to tell

2. Light from a lamp hits a smooth spoon and a rough rock. Why do you see your face only in the spoon?
   - the smooth spoon reflects light back in an even pattern
   - the rock sends light only upward
   - the rock soaks up every bit of light
   - the spoon makes light of its own

3. A periscope lets you see over a wall. It has two mirrors. How does it work?
   - the mirrors make their own light
   - the mirrors send light from your eye over the wall
   - the mirrors bend sound over the wall
   - the mirrors reflect light from the object down into your eye

4. Why can you see a red stop sign from far away at night when car lights shine on it?
   - the driver's eyes light up the sign
   - the sign stores sunlight from the day
   - its surface reflects the headlights back toward the driver
   - the sign makes its own red light

5. Ocean waves reach a beach. A surfer floats past the breaking waves. Why does she stay in about the same place?
   - waves move only on the beach, not at sea
   - the surfer is too heavy for waves to move
   - the waves carry all the water to the beach
   - the waves carry energy, not water, toward the beach

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Answer Key - Grade 4 Science Worksheet - Challenge Me

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   you need the amplitude to tell

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