Ride the Behavior of Waves

Grudge Ball

Grudge Ball Rules

Each group gets a question. If they get it right they automatically get to erase two X's from the board. They can take it from one team or split it. They can not commit suicide (take X's from themselves).

Before they take off these X's, though, they have a chance to increase their ability to get the other teams to hate them. They get to shoot the Nerf ball (nerf bball hoop). There are two lines with masking tape. One is a two point line while the other is a three pointer.

When a team is knocked off they still take turns. To get back on the board they need to get the question right and make the basket.

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a. matter
b. energy
c. speed
d. water

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C. Curves inward.
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3. Type of reflection that occurs when light hits an irregular surface.

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Diffuse

4. A convex lens

A. Produces a virtual image
B. Produces an upside down image.
C. Produces a right-side up image.
D. Can produce an image that is a larger
E. Can produce an image that is smaller.
F. All of the above.
G. Choices A, C, D, E
H. Choices A, B, D, E
I. Choices A, C, D

4. A convex lens

True of Convex lens

- Virtual image
- Right-side up
- Images smaller or larger

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C. Secondary Colors
D. Visible colors

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6. What determines the color of translucent objects?

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The color of the light it transmits.

7. What color will a green apple appear to be when viewed through a red lens?

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B. Green
C. Black
D. Greenish-Red

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8. A(n) _____ image is right-side up.

a. virtual
b. real
c. focused
d. vertical

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9. A _____ lens is thinner in the center than at the edges.

a. concave
b. refraction
c. convex
d. diffuse

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1. Both affected by frequency.
2. Both transfer energy, not matter.
3. Both interact with matter.

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1. Sound waves are require a medium to travel.
2. Sound waves are longitudinal
3. Light waves are transverse. Light waves interact differently with matter: reflection, absorption, transmission, refraction
4. Light waves travel in a straight line unless there is interference.

13. If you can’t see through an object, it is

a. Transparent
b. Opaque
c. Translucent
d. Demonstrating the Incidence of Refraction

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A. a ghost! Oh no!
B. Transparent
C. Translucent
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15. Why does light travel in a straight line?

A. Light waves will always travel in a straight line, even it they could come into contact with another object
B. Light waves travel in a straight line because sound waves travel in a straight line.
C. Light waves don’t travel in a straight line.
D. If there is nothing to interfere with light waves, they should travel in a straight line.

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Applying physics of light to survival in the wild.

You have survived a terrible plane crash and are stranded on a desert island. Armed only with your 6th grade knowledge of wave behavior, you attempt to spear fish.

To successfully, spear a fish should you aim …..

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B. High. Aim past the fish and you'll catch him.
C. Low. Aim in front of a fish. It's a trick!

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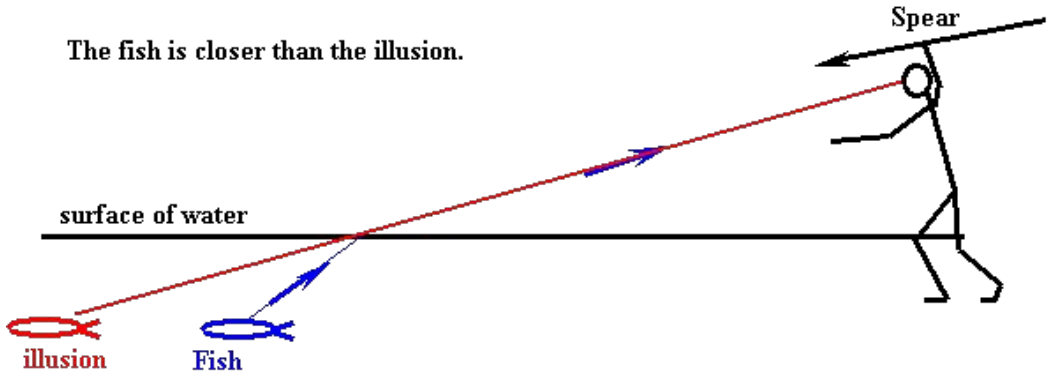

The refraction of light causes an illusion. Light changes speed when it enters water and bends as it passes through a different substance.