DATE: NAME: CLASS:

CHAPTERS 4-6

Dominoes: Optics

Activity 6

Goal • Use this domino activity to build your understanding of the concepts in Unit 2.

What to Do

- 1. Get a domino card from your teacher. Each card has a question on one side and an answer on the other, but they don't match. Ask the question on your card to the class. The person in the class who believes he or she has the correct answer says it aloud. Decide as a class if the answer is correct.
- 2. The person with the correct answer reads his or her question aloud.
- 3. Continue until all dominoes are read.
- 4. As an alternative, divide the dominoes among a group of four players. One player places a card down. The player with either the matching question or the matching answer then plays his or her card with the related ends touching. The next player can match the question on either open end of the dominoes. Continue until all the cards are played.

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Activity 6 continued

Domino Cards

Who believed light consisted of beams?	Toward
What is the name for the form of energy that can be detected by the human eye?	Orientation
What is the speed of light?	Radio waves
During a thunder and lightning storm, which property of light and of sound causes us to see lightning before hearing the thunder?	Decreases
Which property of light explains why shadows form?	Concave
Which term describes the separation of light into its constituent colours?	Light

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When a stick is placed in water, it appears bent. Which property of light explains this observation?	Pythagoras
A frosted window is an example of which type of material?	Ultraviolet radiation
What is the name for a material which prevents any light from passing through it?	Specular
Which colour of light refracts the least?	Convex
Which colour of light refracts the most?	Wavelength
What term is used to describe the number of repetitive motions of a wave in a given time?	3 x 10 ⁸ m/s

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Activity 6 continued

What term describes the distance from one trough on a wave to another trough?	Speed
What term completes the statement "Shorter wavelength colours refract the"?	Higher
As the frequency of waves increases, how does their wavelength change?	Frequency
Which type of electromagnetic wave has the longest wavelength?	Most
Sun tanning salons make use of which type of electromagnetic radiation?	Increase
Which type of electromagnetic radiation is commonly used to detect a broken bone?	Refraction

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What term completes the statement " energy electromagnetic radiation is most harmful to humans."?	Rectilinear propagation
What is the name for a line drawn perpendicular to a reflective surface?	Violet
In order for a clear image of a person looking into a pond to form, what type of reflection must occur?	Virtual
What term completes the statement "In a plane mirror, the image distance is the object distance."?	Opaque
What term completes the statement "If the angle of incidence increases for a light ray, the angle of reflection will"?	Focal point
What type of mirror is the inside of a metal spoon most like?	Dispersion

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Activity 6 continued

What type of mirror is used as a safety mirror on the front of a school bus?	Translucent
What type of image is always formed in plane mirrors?	X ray
What is the point called where converging reflected light rays meet?	Real
What type of image forms in front of a mirror?	Equal to
An image formed in a convex lens is upside down compared to the object. Which image characteristic does this demonstrate?	Red
What term completes the statement "When light rays travel from air into a lens, they bend the normal."?	Normal