3

Birthday Candles

Imagine you are at a birthday party. A birthday cake with candles is put on a table in the middle of a room. The room is very large. You are standing at the end of the room, 10 meters away from the cake. You can see the candles. Circle the reponse that best describes how far the light from the candles traveled in order for you to see the flames.

A The light stays on the candle flames.

B The light travels a few centimeters from the candle flames.

C The light travels about 1 meter.

D The light travels about halfway to where you are standing.

E The light travels all the way to where you are standing.

Describe your thinking. Provide an explanation for your answer.

4

Making Sound

All of the objects listed below make sounds. Put an X next to the objects you think involve vibrations in producing sound.

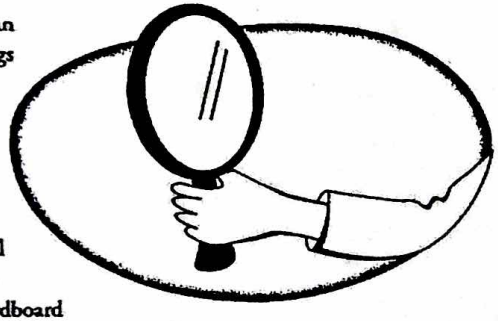
___ guitar strings		
___ drum		
___ dripping faucet		
___ barking dog		
___ piano		
___ screeching brakes		
___ radio speaker	___ drum	___ hammer
___ crumpled paper	___ wind	___ flute
___ car engine	___ wood saw	___ thunderstorm
___ chirping cricket	___ clapped hands	___ two stones rubbed together
___ singer	___ bubbling water	___ snapped fingers
___ popped balloon	___ rustling leaves	

Explain your thinking. What "rule" or reasoning did you use to decide which objects involve vibrations in producing sound?

1

Can It Reflect Light?

What types of objects or materials can reflect light? Put an X next to the things you think can reflect light.

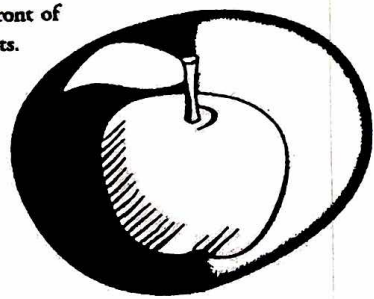


___ water
___ gray rock
___ leaf
___ mirror
___ glass
___ sand
___ potato skin
___ wax paper
___ tomato soup
___ crumpled paper
___ shiny metal
___ dull metal
___ red apple
___ rough cardboard
___ the Moon
___ rusty nail
___ clouds
___ soil
___ wood
___ milk
___ bedsheet
___ brand new penny
___ old tarnished penny
___ smooth sheet of aluminum foil

Explain your thinking. Describe the "rule" or the reasoning you used to decide if something can reflect light.

2

Apple in the Dark



Imagine you are sitting at a table with a red apple in front of you. Your friend closes the door and turns off all the lights. It is totally dark in the room. There are no windows in the room or cracks around the door. No light can enter the room.

Circle the statement you believe best describes how you would see the apple in the dark:

A You will not see the red apple, regardless of how long you are in the room.

B You will see the red apple after your eyes have had time to adjust to the darkness.

C You will see the apple after your eyes have had time to adjust to the darkness, but you will not see the red color.

D You will see only the shadow of the apple after your eyes have had time to adjust to the darkness.

E You will see only a faint outline of the apple after your eyes have had time to adjust to the darkness.

Describe your thinking. Provide an explanation for your answer.