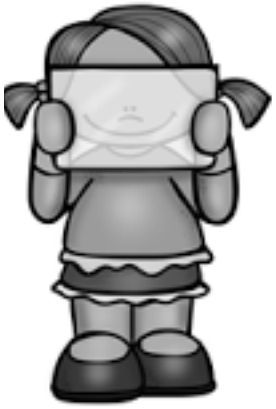
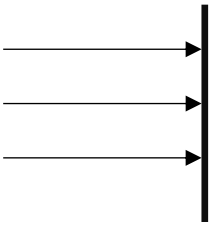
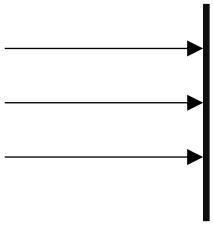
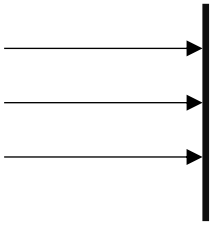
Science 8

Optics 3

Name:
Date:
Block:

1. **Opaque/Translucent/Transparent**
2. **Ray Model of Light**
3. **Shadows**

Opaque/Translucent/Transparent

An object that does not let any light pass through is called _____.	An object that allows <u>some</u> light to pass through is called _____.	An object that allows <u>all</u> light to pass through is called _____.
		
		

Can you think of other materials that are opaque, translucent and transparent?

<u>Opaque</u>	<u>Translucent</u>	<u>Transparent</u>

Three things happen when light strikes a material!

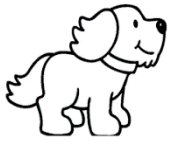
Light may be…	**Material**	**Examples:**
		1. 2.
		1. 2.
		1. 2.

Ray Model of Light

- Light is represented as a _____, or _____ that shows the direction the light wave is travelling.
- You can use this model to_____

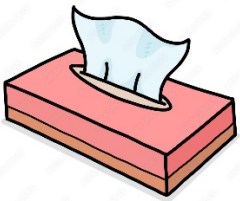
Shadows

- Light travels in straight lines from its _____
- When light reaches a _____, the light cannot move through the object, which leaves an area of _____ that the light can't reach on the other side: a _____!

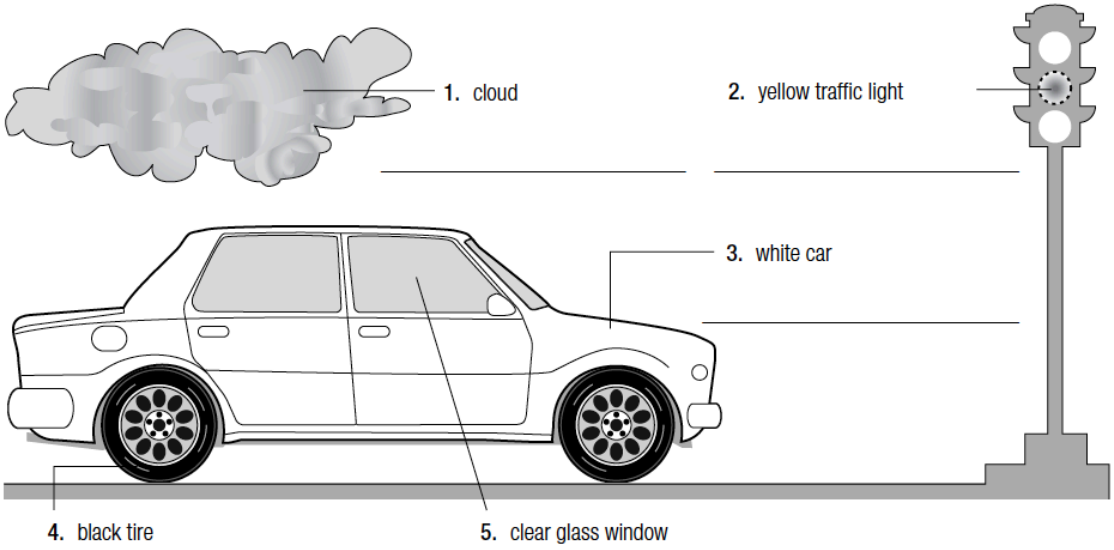


The _____ the object to the light source, the _____ the shadow.

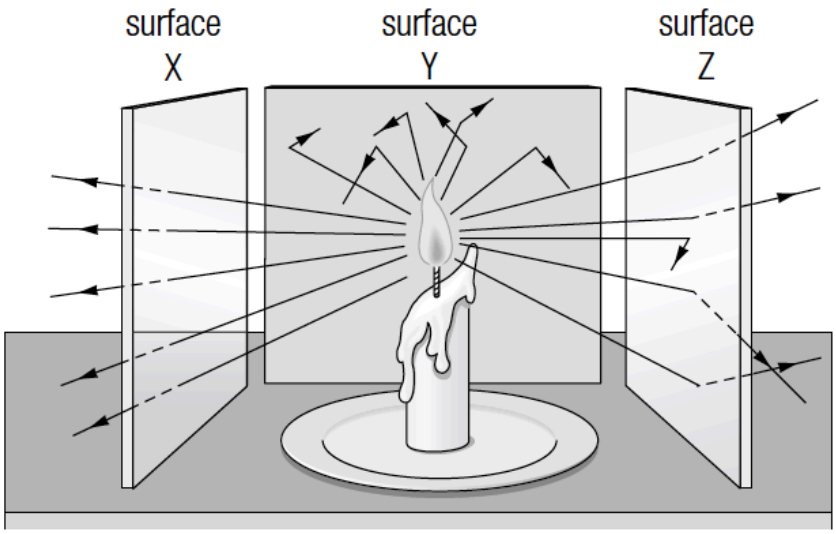
Practice: Label the following as opaque, transparent, or translucent

Tin foil 	Wax paper 	Plastic wrap 
Frosted glass 	Dog 	Textured window 
Water 	Tissue 	Chair 

State whether the following materials are opaque, translucent, or transparent.

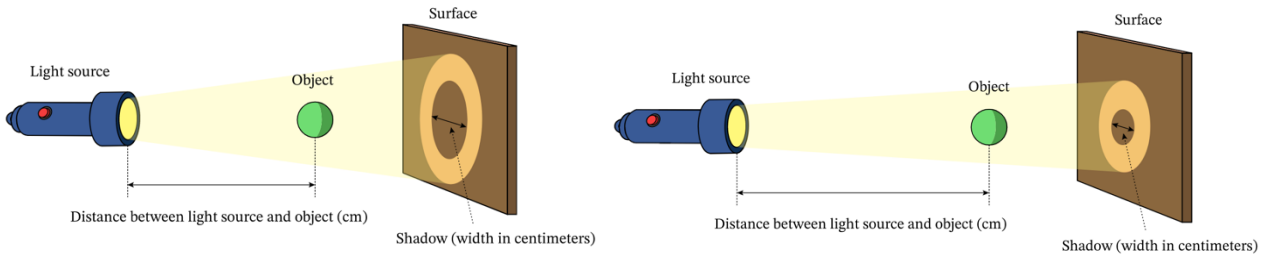


Consider the following diagram and fill in the blanks using the words from the word bank below.



Surface:	Descriptors:	Vocabulary
X		A. Absorbs light B. Reflects light C. Does not allow any light to pass through D. Scatters light E. Opaque F. Translucent G. Transparent H. Objects seen clearly on other side I. Objects not seen distinctly on other side J. Objects not viewable on other side
Y		
Z		

Consider the images below:



a) Why does an opaque object cause a shadow? _____

b) If you move the light source farther away from the object, the shadow gets _____.

c) If you keep the light source and object in the same locations and move the surface farther away, the shadow gets _____.