



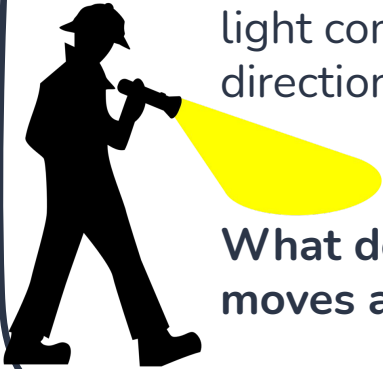
# HOW DO LIGHT WAVES TRAVEL?

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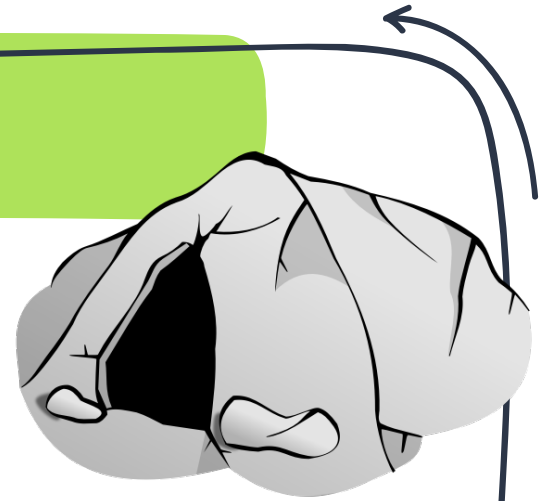
# IMAGINE...

Imagine you had lived in a dark cave your entire life and had never seen the sun.

One day, you notice an object on the ground and manage to push a button on the side. Suddenly, a light comes out of it. You start to point it in every direction.



**What do you observe about how the light moves and interacts with things around you?**



## LIGHT FACTS

- X Light travels in a straight line.
- X Light only stops travelling if an object or force intercepts it.
- X Light interacts differently with different objects.

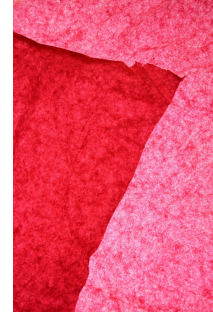
**What else do you notice about light if you shine a flashlight in every direction?**



# MATERIALS

**Gather these materials:**

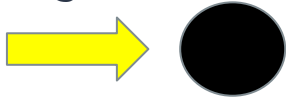
1. Flashlight
2. Tin foil
3. Tissue paper
4. Mirror
5. Clear cup of water
6. Black object
7. Pencil and paper



# DO YOU KNOW THESE WORDS?

## Absorption

occurs when light is converted to energy within a material. The light appears to disappear altogether.



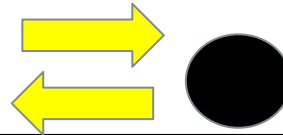
## Transmission

occurs when light continues to travel in a straight line through a material.



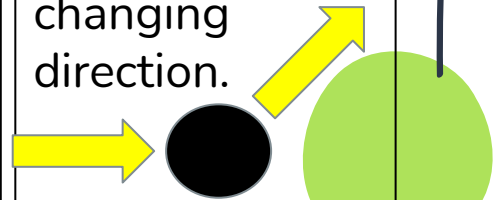
## Reflection

occurs when light bounces off a material.



## Refraction

occurs when light bends when passing through a material, changing direction.



WATCH THIS  
VIDEO AND  
FOLLOW ALONG



# GROWING YOUR THINKING

1. How will light interact with other materials in my house? Can I identify the interaction based on the new words I learned?
2. What if I tried predicting what the light might do before I shine it at an object? Are my predictions accurate?





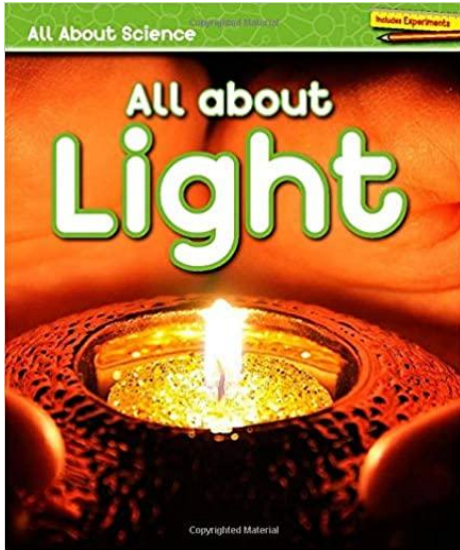
## Big Idea to Remember:

Light interacts differently with different types of materials!

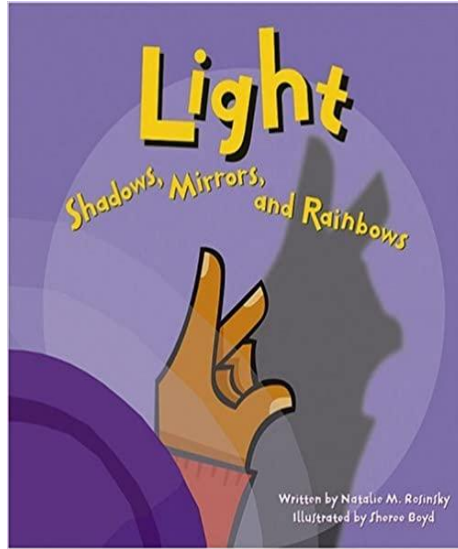
Can you name the four ways light travels through objects that we learned about today?



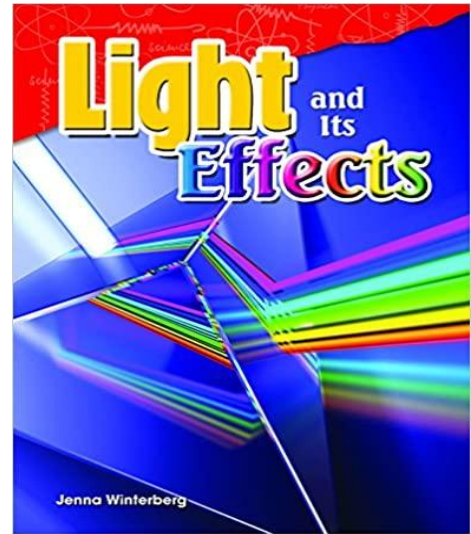
CHECK OUT THESE BOOKS TO LEARN MORE ABOUT LIGHT!



*All About Light* by Angela Royston



*Light: Shadows, Mirrors, and Rainbows* by Natalie Rosinsky



*Light and its Effects* by Jenna Winterberg

GREAT WORK TODAY!  
KEEP EXPLORING AND  
LEARNING!

