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#### **Light and Materials**



# What three types of materials affect the behavior of light?





#### **Light and Materials**

A **transparent** material transmits light, which means it-

The water –

# DOK Question Hypothesize why this is important.





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#### **Light and Materials**

A translucent –

# DOK Question Hypothesize why this is important.





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#### **Light and Materials**

An opaque –

# DOK Question Hypothesize why this is important.







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#### **Interactions of Light**

# How does light behave when it enters a new medium?







- Reflection
- An image is-
- **Regular reflection-**
- **Diffuse reflection-**





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#### **Interactions of Light**

#### Refraction

A light wave can -







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#### **Interactions of Light**

#### **Refraction** -

- Mirages -
- Refraction causes -
- Light that reaches -





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### **Interactions of Light**

#### **Polarization**

#### Light with -





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#### **Interactions of Light**

- **Scattering**
- In scattering -







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### **Interactions of Light**

A scattering effect –

**DOK Question** 

Hypothesize why this is important.









#### **Assessment Questions**

- 1. How do polarized sunglasses reduce glare?
  - a. by scattering light as it passes through the glasses
  - b. by providing a smooth surface that light can reflect off
  - c. by absorbing all light
  - d. by blocking horizontally polarized light







#### **Assessment Questions**

 An opaque material passes light through but scatters the light so that objects do not look clear.

True False



