

These pages are from the G1 journal,  
"Light is Beautiful."



## Light Interacts with objects differently

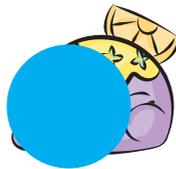
Light from the sun interacts with different materials in different ways.



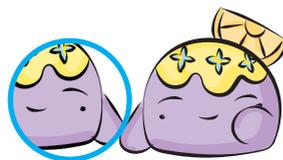
If all light shines through, I can see through it.



If some light shines through, it seems to glow.



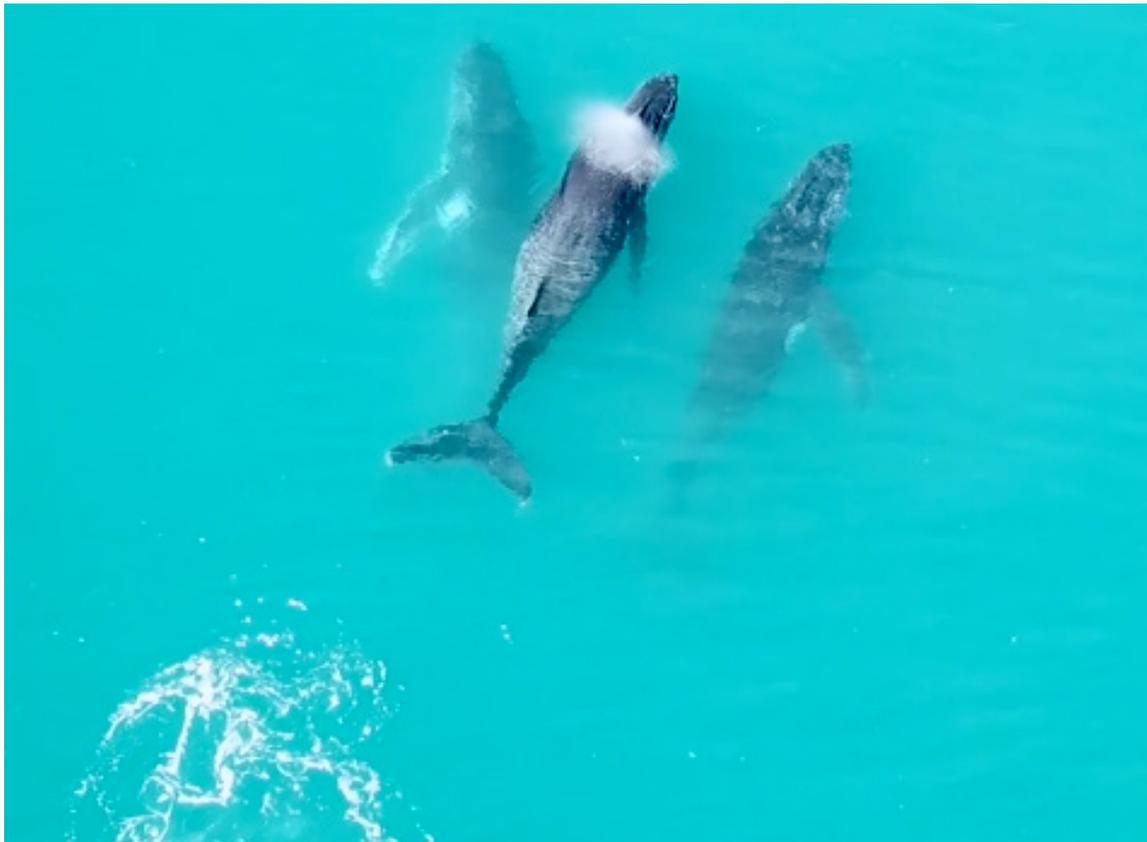
If no light shines through, I cannot see through it.



If all light bounces off it, I can see a reflection.

## Objects are made from materials

Our world is full of amazing things. Animals, water, and even air are all made of different materials. Some materials allow light to shine through them and some do not!



Think,  
Pair,  
Share!

How does light interact with the things in this photo?

## Transparent means clear

**Transparent** things allow light to pass through them. You can see through transparent things. Transparent glass is used to make fish tanks so that you can see the fish inside. These amazing ghost catfish are mostly transparent. You can see through them!



*Why do you think it could benefit these ghost catfish to have transparent bodies?*

A transparent material let's all light through. It is clear.



## Observe transparent, clear bubbles

Soap bubbles are beautiful, aren't they! It's time for your teacher to blow bubbles! See if you can catch a bubble without popping it! When a bubble gets close to you, take a close look at it, What do you see?

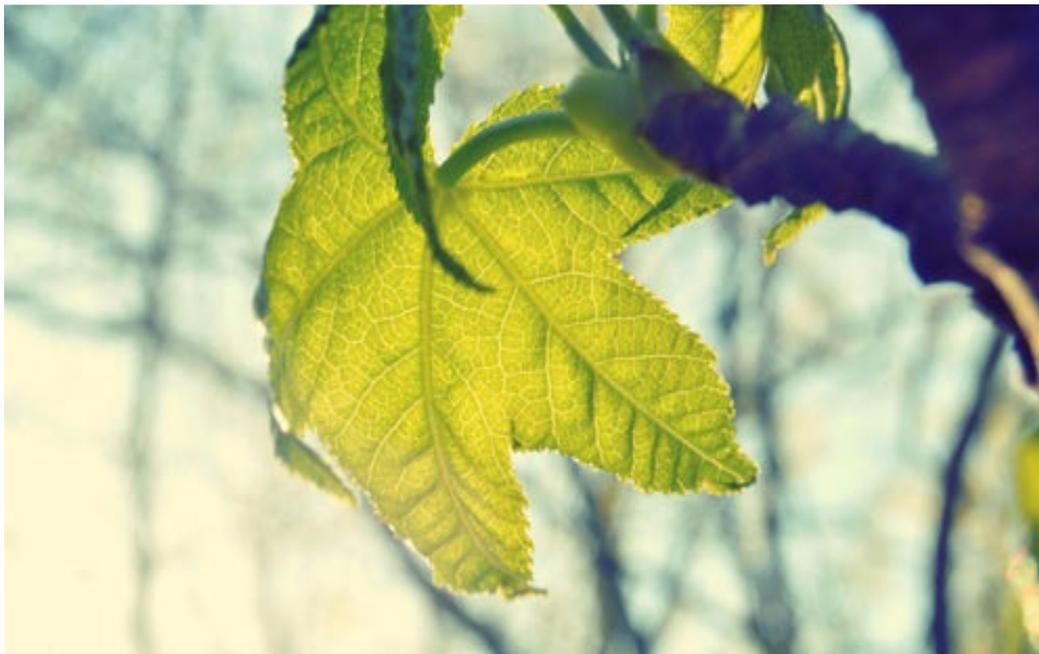


*Bubbles are beautiful in the light. Take a closer look at a bubble to see what you notice.*



Discover Concepts

Translucent means only a little clear  
**Translucent** materials allow some light to pass through them. Translucent materials can appear bright when you shine light through them such as these leaves in the sunlight. Notice how they seem to glow.



*Some light can shine through these translucent leaves.*

A translucent material lets some light through.



## Opaque objects block all light

**Opaque** objects do not let light pass through them at all. Rocks, bricks, and wood are some examples of opaque objects that light cannot shine through.



*This person is opaque because light cannot shine through her making her look dark.*

An opaque material lets no light shine through it. You cannot see through it at all.

