

Let's get set-up!

A **shadow** is a dark area where light is blocked by an object. When light can pass through all the way (like a window), we call an object *transparent*; when some but not all the light can pass through, we call an object *translucent*; when light can't pass through at all, we call an object *opaque*. On a sunny day, because your body is opaque (the light doesn't travel through your body), your body blocks the light which can cause a shadow!

**This week, we'll need:**

- Cardboard
- Various pieces of paper (different weights)
- Scissors
- A piercing object (needle, nail or scissors)
- Wax paper
- A marker
- A piece of plastic (recycled is best)
- A light source (you can use the sun too)
- Tape (optional)
- Your viewfinder (optional)

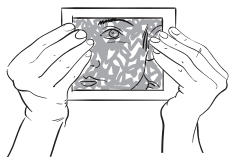
**Watch Kay on YouTube on how to test OPACITY**

<https://www.youtube.com/user/artstarts/videos>

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**Once you have found different pieces of paper, and cut up some shapes,** you can start looking for objects around the classroom, your house, your room, or on a walk that have different opacities. Block the light with these different objects. What do you notice?



Find an opaque toy (something that blocks the light and makes a shadow) and put it near a light source. What do you notice? Then move the toy far away. How does the shadow change? Can you draw the shadow on the teddy bear to show how it changes?

**What happens when you:**

- Swap a person for a toy in your experiment?
- Look at your body shadow inside and outside?
- Shine light through wax paper? Or coloured paper?
- Use a flashlight?

**Vocabulary.**

How do you describe a shadow?

Long  
Short  
Sharp  
Dark  
Fuzzy  
Scary

Figurative  
Copy  
Projection  
Shapes  
Opaque  
Blocked

Translucent  
Transparent  
See Through  
Grey