

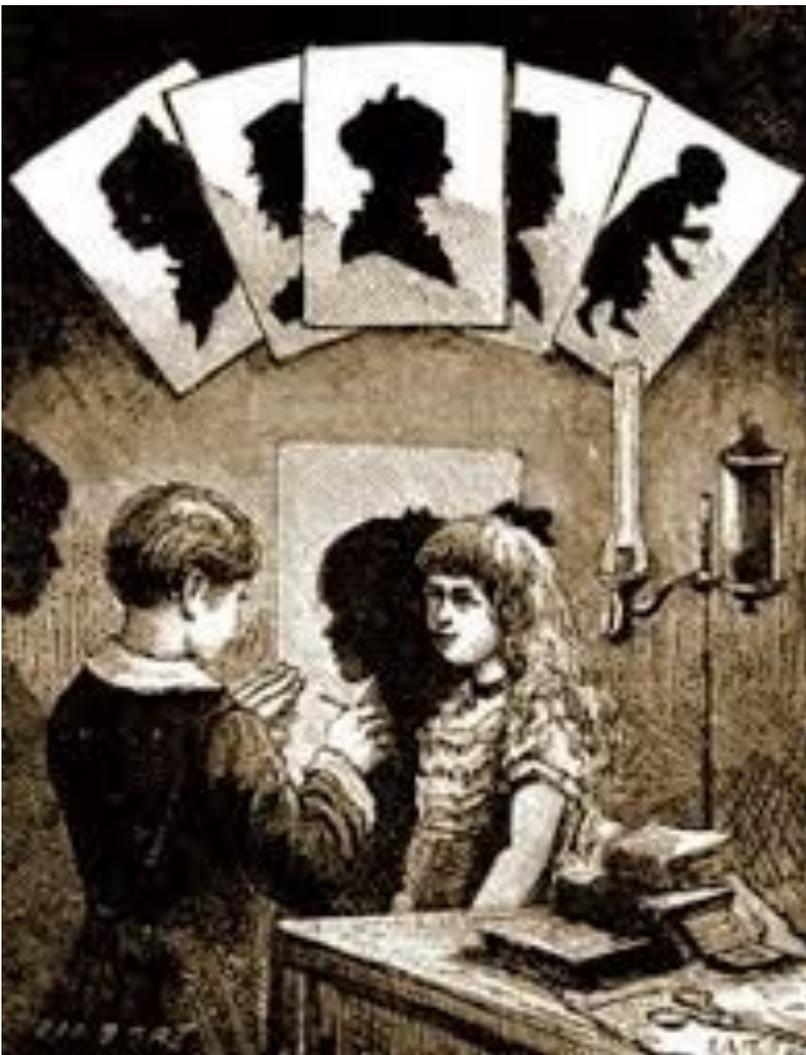
Silhouette Portraits

A silhouette is the image of a person, animal, object or scene represented as a solid shape of a single colour, usually black, with its edges matching the outline of the subject. The interior of a silhouette is featureless, and is usually shown against a light background.

During the Victorian era, silhouettes were an affordable way for people to have portraits made. As photography was not as easy, accessible or as inexpensive as it is today, silhouette portraits were a way to remember loved ones too.



How is a silhouette made?



A silhouette is made by using a light source to cast a shadow. The shadow is then cut around to make an outline of the person.

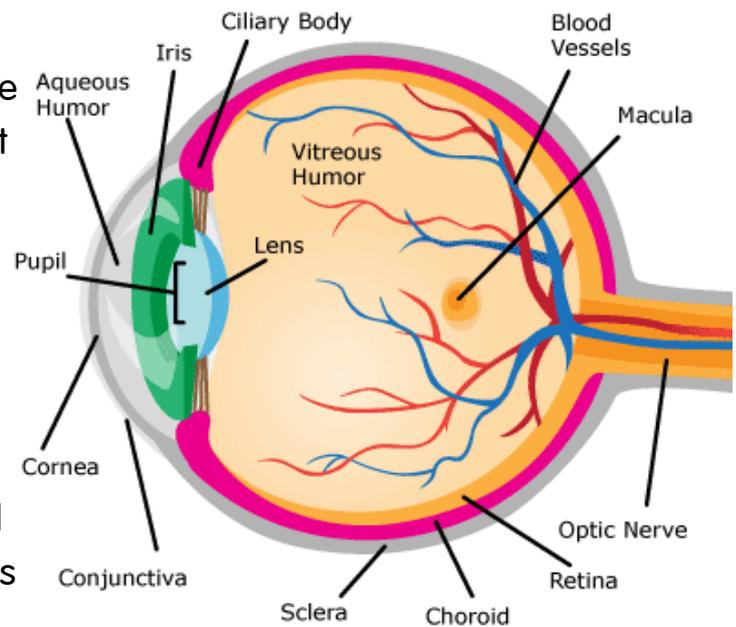
The subject sits in front of a light source, creating a shadow. This shadow is then drawn around and cut out. The cut-out can then be placed against a light background to show the silhouette.

To make a modern version, you could take a photo using a camera, print it out and cut around the face. Then paint over it with black paint and frame it!

How do we see?

The Eye

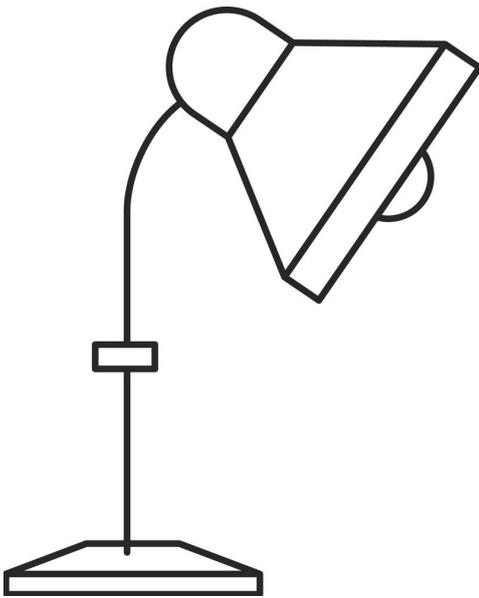
The eye is a ball with a hole at the front, the pupil, which lets in light. Light energy -light waves- zoom around very quickly. They reflect or bounce off most objects. When light hits your eyes it goes inside the eye through the pupil. Inside the eye is a lens which focuses the light onto a surface at the back of the eyeball. This surface is called the retina and is made up of special cells which detect light and send messages to our brain, allowing us to see.



What is light?

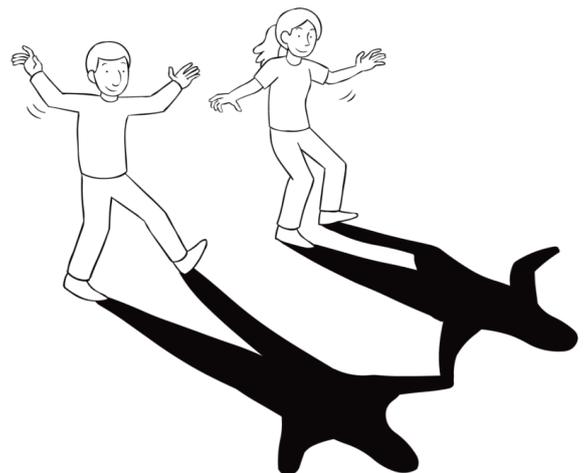
Light is a type of energy that makes it possible for us to see the world around us. We need light to see. Light comes from different sources called light sources; our main natural light source is the sun. Other sources of light include fire, stars and man-made sources like light bulbs and torches.

Light travels very fast. It has a speed of 300 million metres per second in a vacuum. It only takes 8 minutes and 20 seconds for light to travel from the Sun to the Earth. Light travels through the air about a million times faster than sound does - this is why you see lightning before you hear thunder!



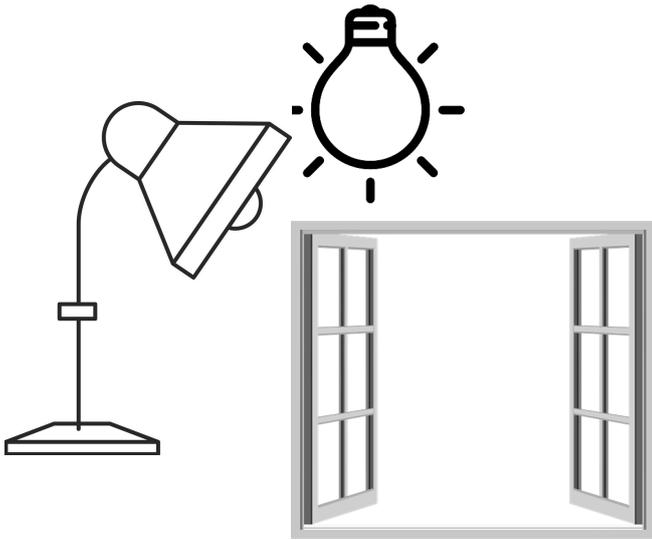
What is a shadow?

Shadows are formed when light from a source is blocked by an opaque object. The closer an object is to the source of light the bigger the shadow. Shadows from the sun can be used to tell the time in a sundial.



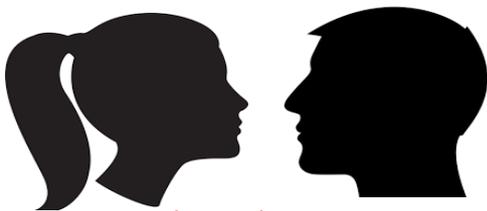
Experiment!

Explore your bedroom or house to see how many light sources you can see and how many shadows you can create!



Light sources

- How many sources of light can you find? Make a list of them all!
- Are they natural or man-made?
- Do they give out lots of light or not very much?
- Do they give out light in the day and at night?
- Do they use renewable energy like solar panels? Do they use electricity or do they use no energy at all?



Shadows

- Can you make a shadow? You could use people or objects to make them!
- Are the shadows different at different times of day?
- Use your hands to make shadow puppets on the wall - how many animals can you make?
- Have a go at using shadows to make your own silhouette portrait

