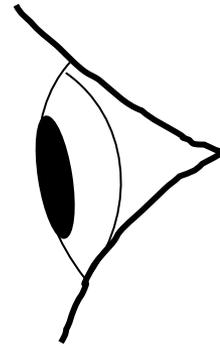
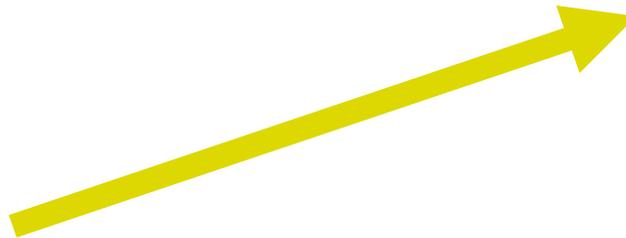
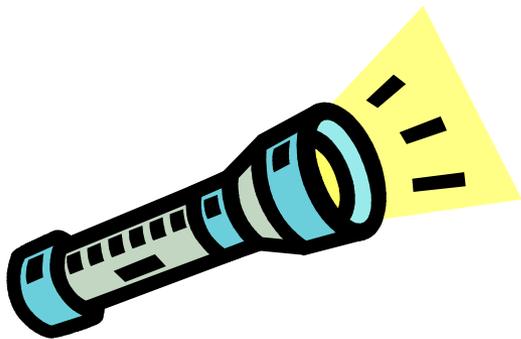


LIGHT !

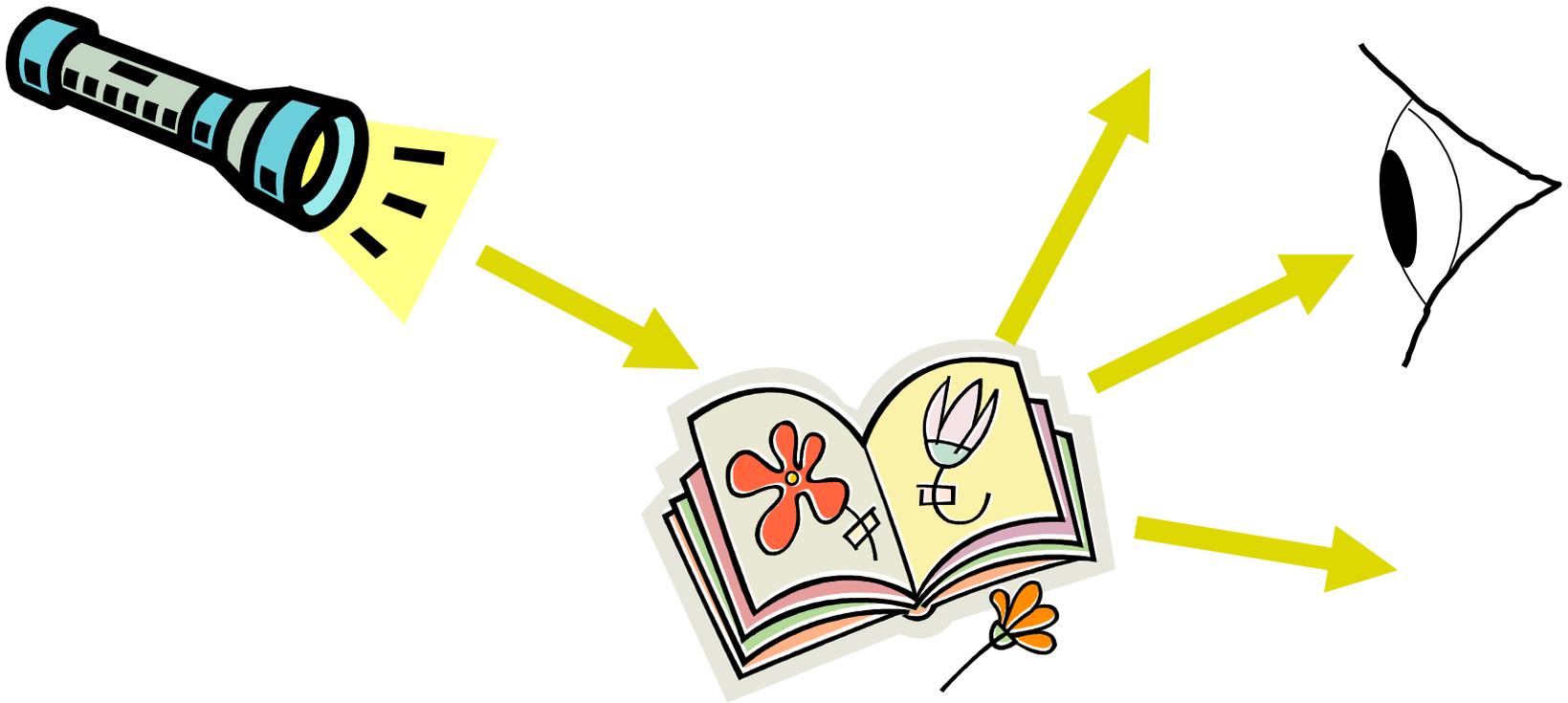
# How do we see light sources?

**Safety Note:** Do not look directly into a light source, **especially the sun**, because it can really damage your eyes.



- Light travels from a source to our eyes.
- We can see sources in a dark room.

# How do we see things that are not sources of light?



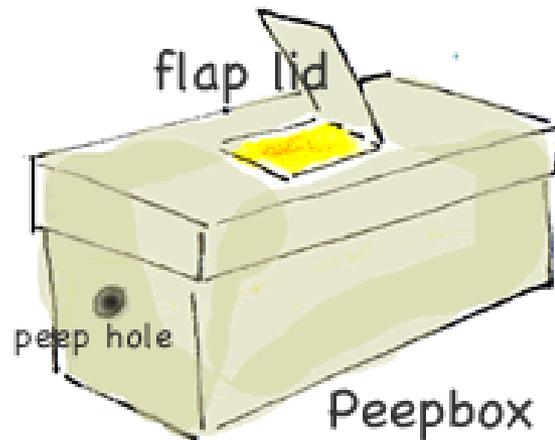
- Light bounces off  
and some reaches our eyes.

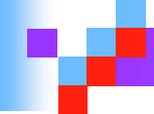


# Can we see in the dark?

- You will need a cardboard box, scissors, a torch and some mystery objects (ask an adult to help you).
- Instructions are on the next page.

- How to make a dark box:
- Use a shoebox (or adapt a similar box eg a cereal box to give a sort of lid)
- In one side of the box make one or two small peepholes (eye distance apart).
- In the middle of the box lid cut a flap roughly 2cm x 5cm



- 
- Ask someone else to put a mystery object in the box without telling you what it is.
  - Make sure the flap is closed and the box is dark then, look through the peephole and try to identify the object.
  - Can you see the object in the dark?
  - Open the flap, can you see the object more clearly? Why do you think this is?
  - Explore how we see using your darkbox.
  - What happens when you shine a torch into the box?
  - Are some objects easier to see in less light than others?
  - Are some colours easier to see than others?
  - Why do you think this is?



# Reflection

- When light bounces off something
  - we say the light is reflected.
- Some materials and types of surfaces are more reflective than others.



# Just for fun....

- Ask an adult if you can use an old CD
- Shine some light onto the CD eg by putting it outside in the sun or by shining a torch onto it.
- What do you notice about the colours of light?

# Sunlight shining on CDs



- Where do the colours come from?



# Rainbow



red  
orange  
yellow  
green  
blue  
indigo  
violet

# Colours

- White light is made up of lots of colours

