



Seeing and light teacher notes

Key Stage 2

Science:

- Investigative skills: using senses
- Light and sound

Overview

These activities allow children to explore their sense of sight within the context of making observations. There are two activities described here:

1. Seeing distant objects
2. Light for sight

NOTE: a suitable risk assessment must be performed before carrying out any practical activity.



Activity 1: Seeing distant objects

Children use different optical aids to observe distant objects. Lenses in them bend the light to produce images that contain greater details than can be seen with the naked eye.

Preparation

Range of visual aids:

- Binoculars
- Telescopes
- Magnifying glasses
- Seeing distant objects activity sheet (follows activity notes)
- Video microscope (if available)

Activity Notes

Have children look at distant objects and draw them in the best detail they can.

Children then observe and redraw the same object but with the aid of a telescope or binoculars.

Have children compare the different amount of detail they can observe with the aid of the binoculars.

Extension

Have children examine small objects with the naked eye and then with the aid of a magnifying glass. Again, note the additional detail that can be seen with the magnifying glass.

If available, examine items with a video microscope. For example, different types of fabrics.

TAKE FLIGHT

Exploring our aviation heritage

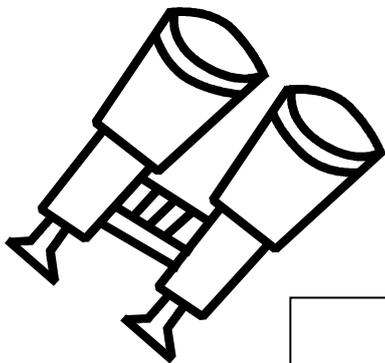
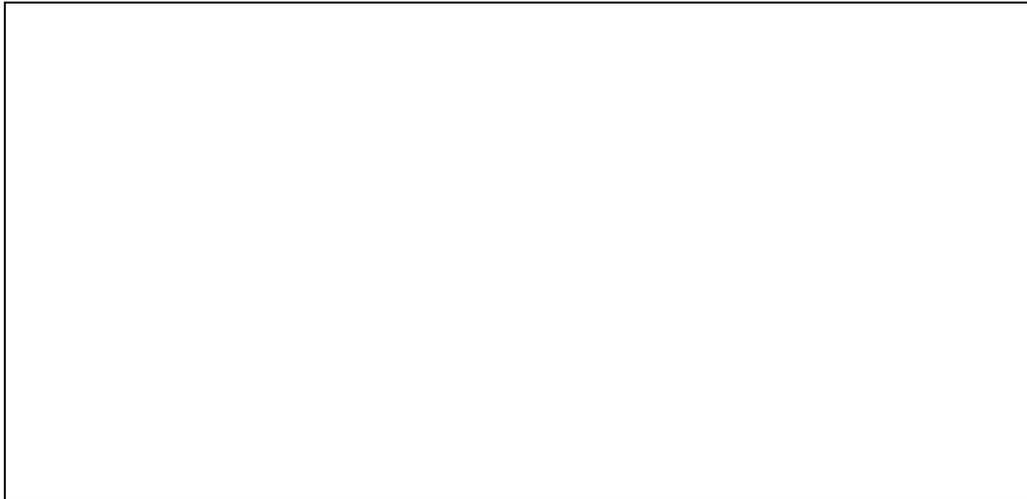


How much can you see?

Look at a distant object.

Draw it.

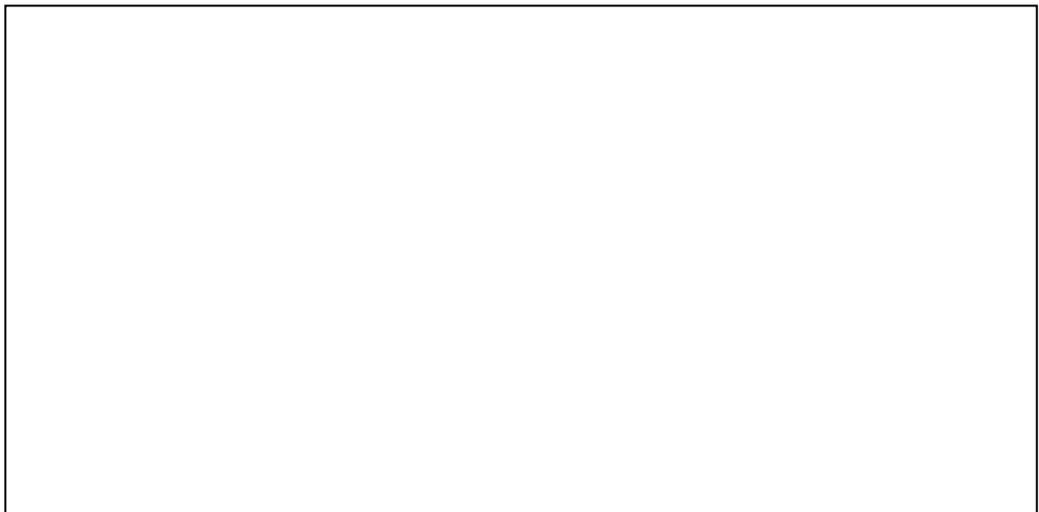
Put in as much detail as you can see.



Use the binoculars or a telescope.

Draw the same object again.

Put in as much detail as you can see.



Activity 2: Light for sight

Children look at objects and discover that light is necessary to be able to see an object.

Preparation

- Small objects such as model people, vehicles or similar
- Thick card box that will exclude light
Cut out a small 'peep hole' that children can look through
Cut out a larger hole to represent a window. Cover with a movable flap to act as a curtain. When closed, it needs to exclude light from the box.
- Small torch
- Different coloured transparent plastic light filters (or transparent coloured sweet wrappers)

Activity Notes

Have children look at the objects in the box using the peep hole.

What do they observe when there is no light in the box. How does this change when the 'curtain' is opened to let in light?

What is the effect of putting a light source (torch) into the room?

Have children discuss what they have observed and suggest explanations.

Finally, explain that light bounces off the things all around them. The light bounces in all directions. Some of this light gets to their eyes to allow them to see the object.

Extension

Have children look at objects through different coloured transparent plastic filters (acetate films or sweet wrappers). How do the objects look through the filters? What happens to different colours?

Creative writing: have children write a story related to light and dark.