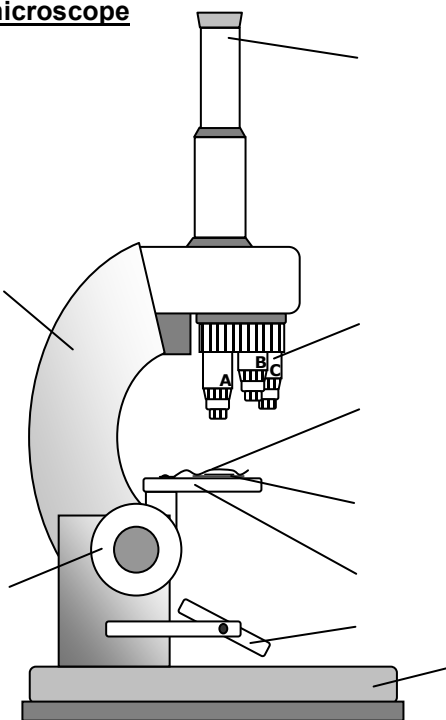
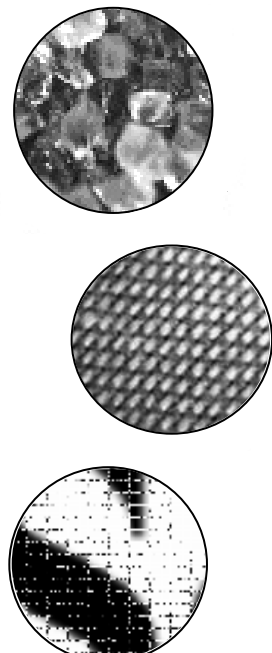


A class was using a microscope for the first time. They had to be very careful because microscopes are fragile and cost a lot of money. The pictures show salt, cloth and newsprint as they appeared *under the microscope*.

| | | |
|---|--|---|
| <p><u>Using a microscope</u></p>  | <p><u>Images</u></p>  | <p><u>Fact File</u></p> <p>The microscope is fragile. Carry it by the base and handle.</p> <p>The longer objective lenses have larger magnifications.</p> <p>A lamp can be used to provide light to the slide via the mirror.</p> <p>The objective lenses have magnification values such as '4x', meaning 'four times bigger'. View using the shortest objective lens first as this has the lowest magnification.</p> |
|---|--|---|

Tasks

1. Label the microscope using the words below.

| | | | | |
|---------------------|-----------------------|-----------------------|---------------|-------------|
| <i>Slide</i> | <i>Stage</i> | <i>Clip</i> | <i>Mirror</i> | <i>Base</i> |
| <i>Eyeiece lens</i> | <i>Objective lens</i> | <i>Focussing knob</i> | <i>Handle</i> | |

- Which two parts of the microscope should you hold when carrying it?
- When looking at a new slide, which objective lens is it better to use first (A, B or C)? Label the three objective lenses 4x, 10x and 40x.
- The mirror provides light to the slide. The light passes up through a hole in the stage and passes through the slide. Why do you think it is necessary to prepare very thin samples of materials for viewing?
- The three pictures in circles show the view under the microscope of cloth, newspaper print and salt. Label each picture.
- Choose three objects and draw pictures showing how you think they would appear under a microscope.

Objectives

Use a microscope safely and effectively.

Checklist for this activity

- | | |
|---|---|
| <input type="checkbox"/> Work on the sheet | <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 |
| <input type="checkbox"/> Write full answers | <input type="checkbox"/> Copy the <i>Fact File</i> |
| <input type="checkbox"/> Copy the diagram | <input type="checkbox"/> Add your own research |