

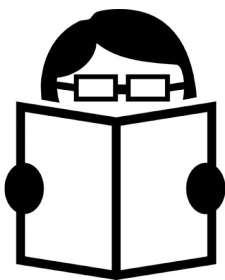
Science

Year 6

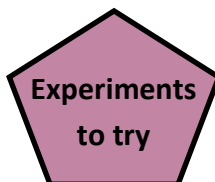
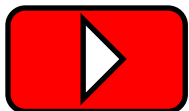
Lenses

and the

Magnifying effect

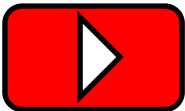


Instructions: These notes contain links to videos, tasks, experiments and interactive questions. When pressing these buttons a new browser window is launched with new contents. When ready close the web browser and continue where you left.



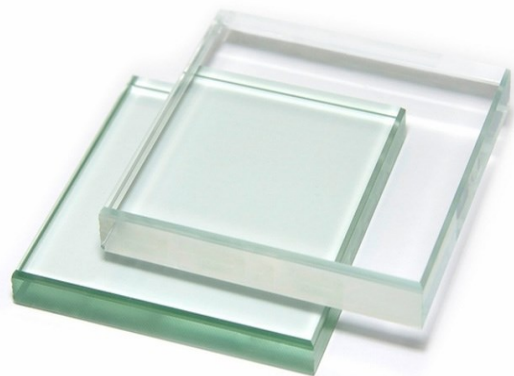
Lenses

There are many different types of lenses. One popular lens is the magnifying glass.



Click box to watch video about lenses.

In nature **thick transparent objects** such as thick glass, plastic and water have a magnifying lens effect (they behave like a lens). The effect is more evident if the transparent object is curved like the fish bowl in the picture below.



Questions

Click on this button to answer some questions about this section.



A plastic bottle filled with water can magnify images like a lens.



Water drops on these plants behave like a lens.



Click this button to learn how to make a simple lens from water.

Lenses produce an enlarged (larger) image or a diminished (smaller) image. Lenses can also invert an image (the image looks upside-down and left to right).



This lens is producing a magnified (larger) image.



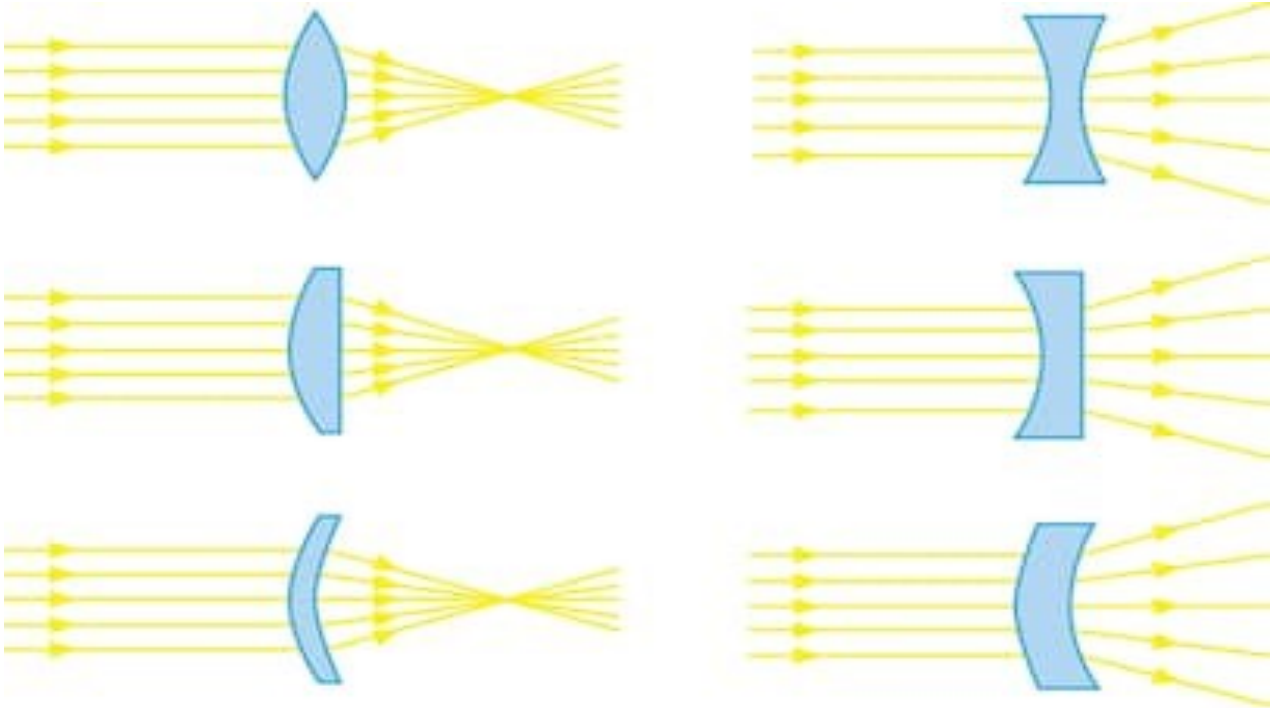
These lenses are producing a diminished (smaller) image. The images are also up-side down (inverted)



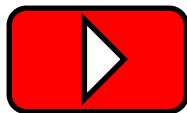
Questions

Click this button to answer a question about images of lenses.

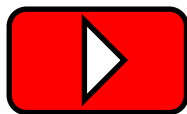
How lenses work: Lenses work by changing the direction of light rays. The change in direction of light depends on the shape of the lens.



The magnifying lens can focus the sun's rays to a narrow point. Light concentrated at this point can burn and produce fire.

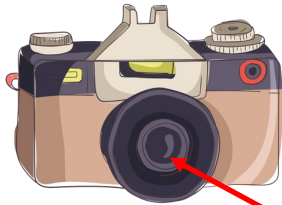


Watch video about lenses and fire.
Video 1



Watch video about lenses and fire.
Video 2

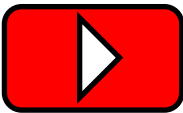
Lenses are used in many different objects around us. Cameras, projectors, glasses, lasers, microscopes, telescopes, DVD players, mobiles, etc. Even our eyes have natural lenses!



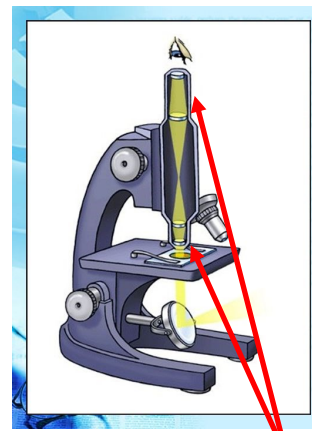
Lens



Lens



Click on this button to watch a video about how lenses are used in different objects.



Microscope Lens are here



This mobile phone has four cameras with multiple lenses



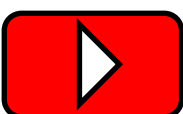
Telescope



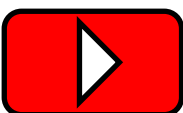
Click on this button to find the lenses in these objects.



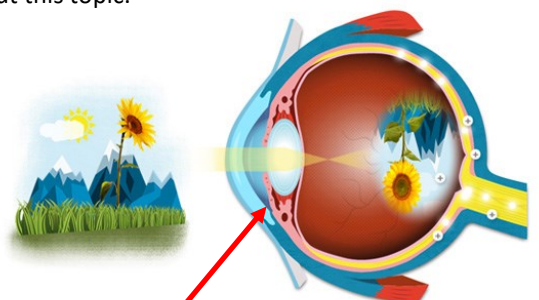
Write about this topic.



Click on this button to watch a video about the eyes—Video 1



Click on this button to watch a video about the eyes—Video 2



There are 'natural lenses' in your eyes