

Science- What is refraction and how can we use it?

In this lesson, we will learn what happens when light travels through two transparent materials. We're going to learn what refraction is, how we can use it and we will carry out an investigation to show that refraction is occurring. For this lesson you will need a piece of paper and a pencil. If you would like to take part in the demonstration you will need a piece of plain paper and a transparent glass of water.



You don't have to limit it to arrows! Be creative! You can draw anything you like and see how it looks through the glass.

Key questions: How does your picture change? What bits stay the same? Does image size matter? What happens if you try with a wider (or narrower) glass? What happens if you move the glass closer to the image? Or further away?

A fun idea is to draw a picture of a face, with the eyes looking one way, and see which way the eyes are looking when you look through the glass.



If you want to learn more watch <https://www.thenational.academy/year-4/foundation/what-is-refraction-and-how-can-we-use-it-year-4-wk3-3#slide-3>

Draw two arrows, both pointing the same way, and then look at one (or both) through a glass of water. Which way are they pointing now? Does it matter how far away the glass of water is? What happens if you move your head from side to side?