

What we see as white light is made up of a spectrum of different colours of light.

We can demonstrate this using:

A ray box with power supply and single slit. A triangular glass prism, and a sheet of white paper.

Place the glass prism onto the sheet of paper. Turn on the ray box. The single slit produces a single beam of white light.

Shine the light beam at the prism. When the light enters the glass it is refracted.

Refraction is the change in speed of a wave when it moves from one medium to another, for example, light slows down when it moves from air to glass.

When the beam of light enters and leaves the prism, refraction causes it to change direction.

We can see where the light hits the wall that it has been dispersed into a spectrum of different coloured light.

Some colours of light are refracted more than others. Red light is refracted least.

The change of direction increases as we move through the colours orange, yellow, green, blue, indigo and violet.

Violet light is refracted the most.