

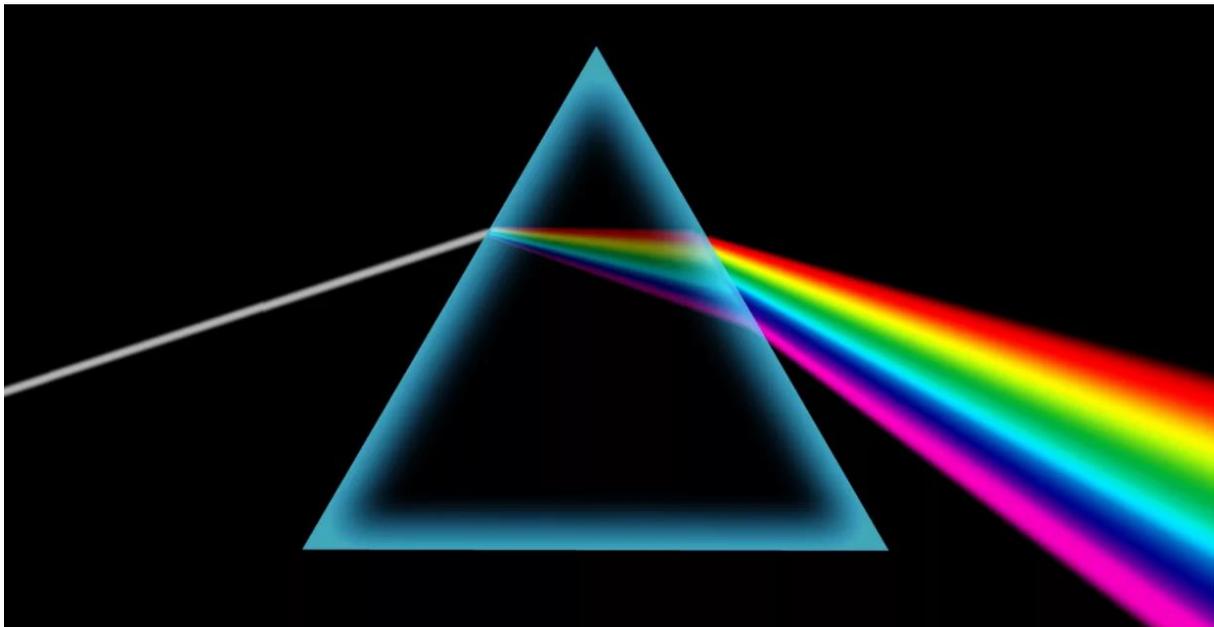
## Week beginning Monday 18<sup>th</sup> May: Years 5 and 6 Science

Did you enjoy the lesson on refraction last week? Remember that refraction is when light bends as it passes from one substance to another. Today we are going to carry on with our project on light, and we are going to do some more exciting activities.

### Learning Objective

**We use the term 'white light' to describe light from the sun and other light sources. We are going to learn that white light is made up of many colours, and that these can be separated out.**

**This is a glass prism. The white light enters and splits into its different colours.**



### Activity 1: Where do colours come from?

First watch this clip from BBC Bitesize.

<https://www.bbc.co.uk/bitesize/topics/zw982hv/articles/zcj73k7>

White light is made up of the following colours: **red, orange, yellow, green, blue, indigo, and violet**. Each coloured light has its own **wavelength**. Red light has the **longest** wavelength and violet light has the **shortest** wavelength.

When white light shines towards a glass prism, it splits up into the different coloured wavelengths. Each wavelength **slows down** and changes direction. Red light changes direction **least**, and violet light changes direction **most**. The light leaving the prism is spread out into its different colours - a process called **dispersion**.

## Activity 2: Rainbows



Watch this short clip about how a rainbow is made. Take notes as you watch.

<https://www.youtube.com/watch?v=GqbgJ3c3yhc>

Now watch this clip. You might need to watch it twice because it is quite tricky! Take notes as you watch.

<https://www.youtube.com/watch?v=hY9GX2mpmnc>

**Write a summary of what you have learnt from these videos.** Remember to include the colours of the spectrum (red, orange, yellow, green, blue, indigo and violet). Create your own mnemonics such as:

**R**ichard **O**f **Y**ork **G**ave **B**attle **I**n **V**ain.

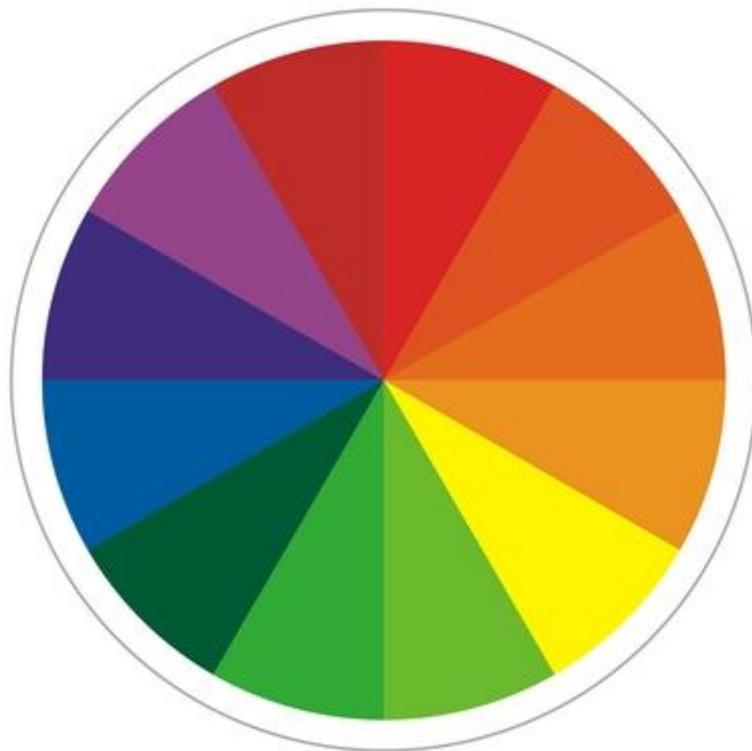
### **Activity 3: Making a colour wheel**

First watch this short clip about how to make a colour wheel. (I prefer the second idea where you use a marble, but both wheels work well.)

<https://www.youtube.com/watch?v=lil4co0z7QA>

Now have a go at making your own colour wheel.

If you don't have all the equipment that you need, please draw a beautiful rainbow.



### **Extended learning**

The next time it is sunny, and if you have access to a hosepipe, then you can create a real rainbow. Turn the hose on and cover the end so you get a fine spray. Stand with your back to the sun and spray the water as widely as possible to get fine mist. You should see a rainbow in the spray.

(Make sure you check with the people at home before you do this!)