Science: Light
Year 6 Autumn 2

Key Vocabulary

Light rays	Light rays are an electromagnetic wave that the straight line path followed by narrow beams of light, along which light energy travels.
Dispersion	The separation of white light into colours.
Prism	A transparent object in the form of a prism that separates white light into a spectrum of colours.
Concave	having an outline or surface that curves inwards like the interior of a circle or sphere.
Retina	The retina is a thin layer of tissue that lines the back of the eye. It receives light that the lens has focused and converts it into neural signals.
Iris	The hole in your eye that lets in light.
Lens	A transparent structure in the eye that helps to refract light to be focused on the retina.
Cornea	The transparent layer forming the front of the eye.
Convex	having an outline or surface curved like the exterior of a circle or sphere.

Why don't you…

Draw pictures of your shadow at different times of the day?
Research pinhole cameras and have a go at creating your own?
Write a step-by-step guide of how a rainbow is formed?

Website Links

https://www.funkidslive.com/learn/homeschool/eyes/mission-2-how-do-we-see/

Scientific Concepts

Energy
Strength and power. There are many forms such as thermal (heat), radiant (light) or kinetic (movement).

Processes
A series of actions or steps taken in order to achieve a particular end. The process of increasing in size.

Enquiry Questions

Can light travel around corners? How can you prove or disprove this?
How is a rainbow formed?
Why do we have eyes at the front of our heads?
Explain how shadows are different to reflections.
How can we get the sharpest shadow outline?
What is the difference between concave and convex?
Why when looking in a mirror everything is on the opposite side?
Can you see anything in the dark?

Scientific Knowledge

- Recognise that light appears to travel in straight lines.
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.

Scientific Skills

Use different ideas and suggest how to find something out.
Make and record a prediction before testing.
Plan a fair test and explain why it was fair.
Set up a simple fair test to make comparisons.
Explain why they need to collect information to answer a question.
Obtaining and presenting evidence.
Measure using different equipment and units of measure.
Record their observations in different ways.
Describe what they have found using scientific words.
Make accurate measurements using standard units.
Explain what they have found out and use their measurements to say whether it helps to answer their question.
Use a range of equipment (including a data-logger) in a simple test