Light- Year 6- Kapow unit- Energy: Light and reflection

Previous learning

Recognise that they need light in order to see things and that dark is the absence of light

Notice that light is reflected from surfaces

Recognise that light from the sun can be dangerous and that there are ways to protect their eyes

Recognise that shadows are formed when the light from a light source is blocked by an opaque object

Find patterns in the way that the size of shadows change

Key Vocabulary for Year 6

Refraction	
Reflection	
Light	
Spectrum	
Rainbow	
Colour	

Previous vocabulary

Light, shadow, mirror, reflective, dark, reflection

Useful links

https://www.stem.org.uk/resources/community/collection/12741/year-6-light

https://www.hamilton-trust.org.uk/science/year-6-science/crime-lab-investigation/

https://www.bbc.co.uk/bitesize/topics/z3nnb9q

https://www.bbc.co.uk/bitesize/articles/zb27kty

Key scientists you could look at…

Isaac Newton- showed how white light is made up of many other colours

Scientific skills

Working scientifically	Questioning and enquiry	Observing and measuring	Investigating	Recording	Grouping and classifying
To use practical scientific methods, processes and skills	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.	Take measurements using a range of scientific equipment with increasing accuracy and precision. Take repeat readings where appropriate. Identify patterns that might be found in the natural environment. Make own decisions about what observations, measurements to use and whether or not to repeat them. Choose most appropriate equipment. Interpret data and find patterns. Select equipment independently. Use accurate and precise measures	Use test results to make predictions to set up further comparative and fair tests. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why. Suggest improvements to methods and give reasons. Decide when it is appropriate to do a fair test.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Report and present findings from enquiries. Decide how to record data from a choice of familiar approaches. Choose how best to present data	Use and develop keys and other information records to identify, classify and describe living things and materials.

Experiment and activity ideas

Videos to demonstrate how light travels	Build model of how light travels	Which materials are best for blocking light	Making shadows	Make your own periscope

Knowledge- objectives

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.

Resources in school

Mirrors, torches, electricity- wires, bulbs, switches, batteries, glass prisms, range of materials,