

Year 3 – Chasing Shadows- LIGHT ENERGY SCIENCE SPRING 1

Prior Learning: Children know that you can see through translucent materials and not through opaque.

Concept: Energy

During this unit we will learn how light travels, how shadows are made and how shadows can change.

Working scientifically:



Ask scientific questions



Observe closely



4. TWAL to understand how shadows are formed

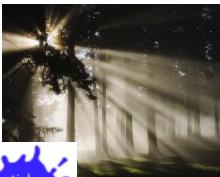
We will learn how shadows form and investigate this with different objects. Which cause the darkest shadow? Which would make the best shadow puppets?



Shadows are formed when opaque objects block the light



1.TWAL to understand the difference between light and darkness



In this lesson we will explore what light and darkness is, what different light sources there are and observe areas around the school for levels of light and darkness and what the light sources are.



Darkness is the absence of light.



Observe closely

5.TWAL to investigate shadow sizes

We will be shadow hunters around the school. Can you find big shadows? Can you find small shadows? Ask your own questions about shadow sizes and discuss ways to investigate to answer your questions.



Ask scientific questions

2. TWAL to notice that light reflects off some surfaces



We will learn what reflection is and how it can be used in real life situation (cat's eyes on roads, Ancient Egyptians). Then we will investigate what the best material will be to reflect light for someone to wear at night!

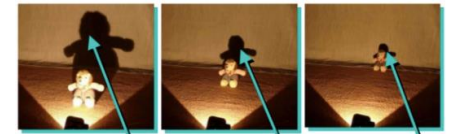


Light travels in straight lines unless it is reflected.



6. TWAL to find patterns in how shadows change size

Investigate how to change the size of a shadow. Consider distance from light source and position of the light source. Can you explain how to make a shadow bigger or smaller?



3. TWAL to understand that light can be dangerous

We will learn that sun can be damaging to our eyes and find out ways to protect ourselves from damage. We will then ask questions about sunglasses and investigate how they protect us.



Light can damage our eyes.



Ask scientific questions

Words we will know!

