

# Curriculum Overview and Homework Activities



## Light and Shadow


This half term, we will be embarking on an amazing journey learning about **light and shadow!** Through engaging activities and hands-on learning, students will gain a deeper understanding of the fascinating science of light, how it travels, and how shadows are created. Together, we will explore the properties of light, learning how it moves in straight lines and how it interacts with different surfaces. We will investigate the differences between transparent, translucent, and opaque materials, and discover how shadows change size and shape depending on the position of the light source. We'll also explore how the Sun, as our primary source of light, influences shadows throughout the day and how reflective surfaces like mirrors can bend light in surprising ways! This in-depth learning will link to our English unit, where we will explore different forms of creative writing, including poetry, instructions and formal letters. In DT, we will put our creative skills by creating our own shadow puppets. In History, we will be learning about the Shang Dynasty. In Maths, we will be concentrating on multiplication, division, decimals, length and perimeter, mass and capacity. Our learning in Science and Maths will come together as we measure and calculate shadow lengths during experiments!

We're looking forward to a bright and exciting half term filled with discovery and creativity!

**Reading every night is the most important thing you do to support your child with their learning.**

There are weekly spellings to learn as well as TTROCKSTARS and times tables practice. We also set weekly math's homework— a sheet will be stuck in the homework book ready to complete. These **MUST** be completed before attempting any of the homework tasks below.

**The additional tasks below are optional.**

<p><b>Choose an outdoor object (a fence post or a tree) and measure its shadow at three different times during the day. Answer these questions 1) What happens to the shadow length throughout the day? 2) Why do you think shadows change size?</b></p>	<p><b>Create a poem about light and shadow.</b></p> 	<p><b>Make a list of all the light sources you have in your house.</b></p>	<p><b>Make a model of a light house by the coast using recyclable materials.</b></p>
<p><b>Write a short story about a character who lives in a world of shadows. How do they interact with light? What challenges do they face?</b></p>	<p><b>Go outside to find natural and artificial shadows. Look at the size, shape, and sharpness of shadows and guess what objects or light sources created them.</b></p>	<p><b>Materials: Glow sticks and different materials (foil, cloth, plastic wrap). Wrap the glow sticks in different materials and observe how well they block or allow light to pass through. Discuss which materials block light the best.</b></p>	<p><b>Make a periscope. Research, design and make your own periscope- write instructions about how to create one.</b></p>