

OUR LEAD STATE OF BEING IS:
SCIENTIST



OUR SUPPORTING STATE OF BEING IS:
ARTIST



Why are shadows
important?



OUR LEAD STATE OF BEING IS:
SCIENTIST



This Term's Enquiry Question is: Why are shadows important?

Term 1

OUR SUPPORTING STATES OF BEING ARE: ART, GEOGRAPHER AND ENGINEER



We are Scientists

Light

In this Enquiry we will: 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.

Working Scientifically by: planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary; use test results to make predictions to set up further comparative and fair tests.

We are Artists:

- *create sketchbooks to record their observations and use them to review and revisit ideas*
- *improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay];*
- *be taught about great artists, architects and designers in history such as the following that use shadow to great effect.*

Core Subjects
Coverage:

WE ARE AUTHORS



WE ARE MATHEMATICIANS

Place value: Read and write numbers: to 10,000 (Y4); 1,000,000 (Y5) and 10,000,000 (Y6); Comparing and ordering numbers, powers of 10, rounding numbers and using negative numbers in context.

Addition and Subtraction: Using informal and formal methods to add and subtract. Using a range of mental strategies. Column addition and subtraction using numbers up to 4 digits (Y4); more than 4 digits. (Y5) and any integer (Y6). Multi-step problem solving and using inverse operations.

Focused Texts: Kensuke's Kingdom (Narrative)

Grammar and punctuation: Use of the semi-colon, colon and dash to mark the boundary between independent clauses [for example, It's raining; I'm fed up] Use hyphens. Use a range of sentence starts and structures. Develop the use of language for effect.

Spelling: Spell and use all statutory words for their year group. Exploring prefixes and suffixes. Contractions, exploring different phonemes and their pronunciations.

Reading: Develop a reading habit based on reading for pleasure. Take part in informal book talk. Read a range of texts with fluency, building stamina to increase their words read per minute. Inference: write detailed answers to questions using the text.



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Term 1



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Milestones in learning:

KEY VOCABULARY

- *transparent*
- *translucent*
- *opaque*
- *reflection*
- *shadow*
- *source*

Learners understand that light travels in straight lines and that we see when light travels to our eyes. They can also name some great artists that use shadow.

Learners recognise and can control variables in a fair test, They understand relationship between an opaque object and a light source to create shadows. They are becoming more proficient in pencil control for drawing.

Learners are improving their mastery of drawing and sculpture techniques. They use techniques to record the effect of light and shadow on objects

Learners can explain why shadows have the same shape as the objects that cast them.



Why are shadows important?



Recap: How does light travel?



Do shadows always have the same shape as the object?



What art techniques can we create using shadow?



How can we explain the use of shadow in art?



Engage:

Explore using shadow puppets; find out about how pinhole cameras work or share the work of Fox-Talbot (museum Lacock)



How do we see objects?



How do artists use shadow in their artwork (Vincent Bal)



Challenge:
Create an art gallery of shadow-inspired drawings, paintings or sculpture.