Science Knowledge Organiser Working Scientifically (Term 6)

Year 4

Our learning

In our science lessons this term, we will be working scientifically with our knowledge of light and shadows. This is part of the **physics** aspect of science and will help us to develop the skills to become a scientist.

We will look at using our scientific knowledge to identify patterns from the data we collect and then use scientific evidence to explain our findings.

Ask a question

Plan an investigation

Make a prediction

Complete your investigation

Display your results

Explain what you found out

Information

Lurking in the shadows

Dark is the absence of light.

Shadows are form when light from a light source is blocked by a solid (opaque) object.

Shadows can be different sizes, shapes and tones.







As a scientist I will...

- Suggest questions and know they can be answered in different ways.
- Use data to make predictions, pose new questions and suggest improvements to my enquiries.
- Recognise when a fair test is necessary.
- Make systematic and accurate observations and measurements using standard units.
- Choose suitable ways to record and present information.
- Use scientific language to support my findings.
- Identify changes, patterns, similarities and differences in data to help form conclusions.
- Identify similarities and differences when talking about scientific processes.

Vocabulary

Fair test- A test that controls all but one variable when attempting to answer a scientific question

Explanation— To make something understandable

Prediction – What you think will happen.

Data— Used to describe information that is often in numbers

Evidence- Something that is used to support an idea or argument

Interpret- Explain the meaning of something **Record-** Note something

Light source - Something that makes light (natural or artificial)

Shadow - A dark shape made when something blocks light

Opaque - Material which cannot be seen through and does not allow light to pass through it

Transparent - Material you can see clearly through and allows light to pass through it Translucent - Material that allows some light to pass through it, but you can't see clearly through it

Fratosthenes discovered lots about shadows and how they worked.



