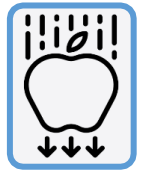




Science – Light (Year 3)

Outcome: Create a sundial

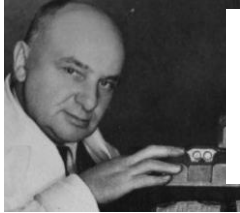
Physics



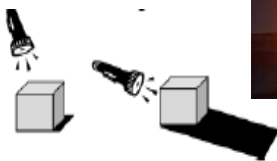
Prior Knowledge and Skills

- Describe what they see, hear and feel whilst outside. (EYFS)
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)
- Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials)

Ideas and inspiration:



Percy Shaw (Inventor of the cat's eye)



Enquiries

Identifying, grouping and classifying
- Based on the children's own criteria:
O classify light sources (leading to man-made/natural)
O classify materials (leading to reflective/non-reflective, transparent/translucent/opaque).



Comparative/ fair testing
-Test materials for reflectiveness.
-Test materials for transparency.
-Investigate shadows (size of shadows, shape of shadows).



Vocabulary:

Light and seeing:

dark, absence of light, light source, illuminate, visible, shadow, translucent, energy, block.

Light sources:

e.g. candle, torch, fire, lantern, lightning.

Reflective light:

reflect, reflection, surface, ray, scatter, reverse, beam, angle, mirror, moon.

Sun safety:






dangerous, glare, damage, UV light, UV rating, sunglasses, direct.

Previously introduced vocabulary:

opaque, transparent, sunlight, sun.

Developing Knowledge and Skills

Scientific Knowledge:		Working Towards	Within	Expected	Above
	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.				
Working Scientifically (Skills): Plan:		Working Towards	Within	Expected	Above
	Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.				
	Set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help to decide how to set it up.				
Working Scientifically (Skills): Record:		Working Towards	Within	Expected	Above

 	 Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.				
Working Scientifically (Skills): Review:		Working Towards	Within	Expected	Above
	 Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.				
How will your learning help you with other areas of the curriculum? _____					
Is there anything else you would like to know about light? _____					
Highlights: _____					
