Lent 1 Science Year 3:Light (Physics)			
Scripture Link: John 8:12			
National Curriculum Objective •			
Enquiry Question: What is Light?			
	Lesson 1	Lesson 2	Lesson 3
Learning intention for each lesson	To know what light and dark are	To know that the sun is the primary source of light	To know what reflections are
Recall and Retrieval	describe some of the features of summer and winter. What a force is What a magnet does	Light is a form of energy that moves in straight lines. know that dark is the absence of light or that light is not there can name some light sources. Explain how light helps us to see.	know that the Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light. Can describe some dangers associated with the sun.
Sequence of substantive knowledge throughout the lesson	I know that we need light in order to see: (Light is a form of energy that moves in straight lines. It also reflects off things, and that reflected light enters our eyes, allowing us to see). I know that dark is the absence of light or that light is not there I can name some light sources.	I know that a source of light makes light. I know that the Sun and other stars, fires, torches and lamps all make their own light and so are examples of sources of light.	I know that reflection occurs when a light ray hits a surface and bounces off. I know the appearance of an image in a mirror is called a reflection. I know that smooth, shiny surfaces (such as mirrors and polished metals) reflect light well. Dull and dark surfaces (such as dark fabrics) do not reflect light well.
Key Skills/disciplinary knowledge	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **making systematic and careful observations** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions;** • **identifying differences, similarities or changes related to simple scientific ideas and processes;**	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **making systematic and careful observations** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions;** • **identifying differences, similarities or changes related to simple scientific ideas and processes;**	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **setting up simple practical enquiries, comparative and fair tests;** • **making systematic and careful observations** • **recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables;** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions;**

			• **using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions;**
Key Vocabulary	Light, light source,	Light, light source, dark, absence of light, shadow, reflect, sunlight, dangerous	Light, light source, dark, absence of light, shiny, matt, surface, shadow, reflect, mirror, sunlight
Main teaching activity ***If the school has another short term planning format, this does not need to be included.***			
Scaffolding			
Challenge			
Diversity Links			
Catholic Social Teaching Principles			
British Values			
Wider links			

Lent 1 Science Year 3:Light (Physics)			
	Lesson 4	Lesson 5	Lesson 6
Learning intention for each lesson	To know what shadows are	To know what can cause the size of a shadow to change	To know the impacts of transparent, translucent and opaque materials on light.
Recall and Retrieval	know that reflection occurs when a light ray hits a surface and bounces off. know the appearance of an image in a mirror is called a reflection. know that smooth, shiny surfaces (such as mirrors and polished metals) reflect light well. Dull and dark surfaces (such as dark fabrics) do not reflect light well. Define opaque and transparent.	Know what a shadow is and how they occur Can name some sources of light Can explain what a reflection is.	Know what a silhouette is Know what can cause shadows to change size. Can name some natural materials
Sequence of substantive knowledge throughout the lesson	I know that a shadow is the dark shape made when something blocks light. I know that you must have a source of light in order to have shadows I know that if there is more than one light source, there will be several shadows	I know that A shadow's outline, called a silhouette, will have the same shape as the object blocking the light. I know that shadows can vary in size. I know that moving an object towards a light source and away from a surface makes its shadow increase in size. I know that moving an object away from a light source and towards a surface makes its shadow decrease in size.	I know what transparent means: light completely passes through it, and you can see clearly through it I know that translucent means: the material will allow light to pass through it but objects on the other side will not be clearly seen I know that opaque means: cannot be seen through and does not allow light to pass through it
Key Skills/disciplinary knowledge	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **setting up simple practical enquiries, comparative and fair tests;** • **making systematic and careful observations** • **recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables;** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions;**	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **setting up simple practical enquiries, comparative and fair tests;** • **making systematic and careful observations** • **gathering, recording, classifying and presenting data in a variety of ways to help in answering questions;** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions;**	• **asking relevant questions and using different types of scientific enquiries to answer them;** • **setting up simple practical enquiries, comparative and fair tests;** • **making systematic and careful observations** • **gathering, recording, classifying and presenting data in a variety of ways to help in answering questions;** • **reporting on findings from enquiries, including oral and written explanations, displays or presentations o results and conclusions;**

	• **using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions;** • **identifying differences, similarities or changes related to simple scientific ideas and processes;**	• **using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions;** • **identifying differences, similarities or changes related to simple scientific ideas and processes;**	• **using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions;** • **identifying differences, similarities or changes related to simple scientific ideas and processes;**
Key Vocabulary	Light, light source, dark, absence of light, surface, shadow, reflect, mirror, block, sunlight	Light, light source, dark, absence of light, surface, shadow, reflect, mirror, sunlight, silhouette	Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight,
Main teaching activity ***If the school has another short term planning format, this does not need to be included.***			
Scaffolding			
Challenge			
Diversity Links			
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Wider curriculum links			