

Light and Shadow : Science : Year 3

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recognise that we need light in order to see.	Children will learn that darkness is the absence of light, and that without light we cannot see. They will then identify, describe and sort a variety of light sources.	<ul style="list-style-type: none"> Do children know that we need light in order to see things? Do children know that dark is the absence of light? Can children identify a variety of light sources? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C/1D Picture Cards (FSD? activity only)
Lesson 2	To explore the Sun as a light source and identify the difference between night and day.	Children will learn about some differences between night and day, including starting to understand how the Sun rises and sets. They may then describe differences between night and day in their own words by answering questions, producing diagrams or writing poetry.	<ul style="list-style-type: none"> Can children define the difference between night and day? Do children know why the Sun rises and sets each day? Do children know that we need light to see and that darkness is the absence of light? 	<ul style="list-style-type: none"> Slides Worksheet 2A/2B/2C Poem Template sheets (FSD? activity only)
Lesson 3	To investigate what shadows are and why they are formed.	Children will share their ideas about how objects could be tested to determine whether or not they will make a shadow. They may then either test their ideas, or explore the way shadows are created, using shadow puppets.	<ul style="list-style-type: none"> Do children know that shadows are formed when light is blocked? Do children know the difference between objects that are transparent, translucent and opaque? Can children explore shadows using torches and express their findings? 	<ul style="list-style-type: none"> Slides Worksheet 3A/3B/3C Variety of opaque, transparent and translucent objects Torches Cardboard boxes, card, sticks, greaseproof paper (FSD? activity only) Help Sheet (FSD? activity only)
Lesson 4	To investigate how shadows behave.	Children will continue to learn about how shadows are created, then conduct practical shadow investigations where they will predict, test and draw/write to show their findings.	<ul style="list-style-type: none"> Do children know that shadows are formed when the light from a light source is blocked by a solid object? Can children use simple equipment to explore how shadows behave? Can children record findings using drawings and diagrams? 	<ul style="list-style-type: none"> Slides Worksheet 4A/4B/4C Variety of small objects Torches Challenge Cards (FSD? activity only) Large sheets of paper (FSD? activity only)
Lesson 5	To investigate how the size of shadows change throughout the day.	Children will discuss and predict what will happen to a shadow cast by a stick in sunlight throughout the day. They may then conduct a shadow investigation and present their findings using bar graphs.	<ul style="list-style-type: none"> Can children explain why shadows created by the Sun change position during the course of a day? Can children plan and carry out an investigation? Can children find patterns in the way the size of shadows change? 	<ul style="list-style-type: none"> Slides Worksheet 5A/5B/5C/5D Shadow stick, ruler and chalk Access to computers (FSD? activity only)
Lesson 6	To explore how light is reflected from surfaces.	Children will learn that some surfaces reflect more light than others. They may then either identify and describe a range of reflective surfaces, or conduct a reflection investigation using mirrors.	<ul style="list-style-type: none"> Do children know that light travels in a straight line? Do children know that we need light in order to see? Do children know that we see when light is reflected from a surface? 	<ul style="list-style-type: none"> Slides Worksheet 6A/6B/6C Mirrors Challenge Card (FSD? activity only) End of Unit Quiz