

Topic:	Year group	Term
Sustainability - Light pollution	6	Spring

Background knowledge

Children learn about three types of light pollution: glare, light trespass and skyglow. They should identify that glare results from artificial lights, such as car headlights, making it difficult to see. Light trespass occurs when light enters areas where it is not wanted, such as the windows of bedrooms where people are trying to sleep. Skyglow is a form of light pollution that brightens the night sky.

Children should understand that light pollution affects human and animal behaviour, including sleep patterns in humans and migratory and reproductive patterns in other animals.

What should I already know?

I can describe dark is the absence of light.

I can explain that light is needed in order to see.

I can explain that light is reflected from a surface.

I can explain and demonstrate how a shadow is formed.

I can explore shadow size and explain how to change it.

I can explain the dangers of direct sunlight and bright lights and describe how to keep protected,

National Curriculum Objectives / Key Skills	The Journey
<p><u>Working scientifically</u></p> <p>Identifying scientific evidence that has been used to support or refute ideas or arguments.</p> <p>Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.</p>	<ol style="list-style-type: none"> 1. What is light pollution? 2. How can we reduce light pollution?

Scientific enquiry



Outcomes

Working towards: I understand that light pollution affects human and animal behaviour.

Expected: I understand that light pollution affects human and animal behaviour, including sleep patterns in humans and migratory and reproductive patterns in other animals.

Exceeding: I understand that light pollution affects human and animal behaviour, including sleep patterns in humans and migratory and reproductive patterns in other animals, explaining why.

Key Vocabulary

Migration - seasonal movement of animals from one place to another

Glare - a type of light pollution that is caused by brightness from car or vehicle headlights

Light trespass - a type of light pollution that is caused by light shining in areas it is not intended to go

Skyglow - the brightening of the sky at night

Light pollution - unwanted effects of artificial light

Urban - characteristic of a city/town

Timeline / Diagrams



Rural - characteristic of a countryside environment Light emission - light released or given out in the world Appliance - a device or piece of equipment designed to perform a specific task	
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Key people / places
STEM scientist- optical engineer

Assessment questions / outcomes
<ul style="list-style-type: none"> • What is light pollution? • Why is light pollution an issue? • What changes can you make to your use of appliances/devices to reduce light pollution? • How can light pollution impact animals and their habitats? • What are some examples of sources of light pollution in our school/homes? • What would happen to the planet if ...?