

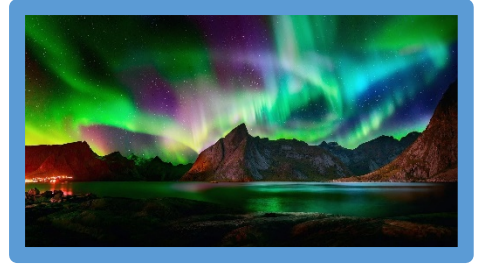
# Year 4 Autumn 2 Under the Aurora



## Curriculum Driver: Science

# Year 4

## Autumn 2 – At the Aurora



**Key Curriculum Driver:** Science

**Other Curriculum Areas:** Geography and Art

**Rationale:** At the Aurora will provide the opportunity for children to **discover** the wonders of the northern lights (and southern) while studying the different poles, magnetism and light. In addition, children will also be able to create their own artwork reflecting this natural phenomenon.

**By the end of this topic, most children will have:**

The ability to think independently and raise questions about working scientifically and the knowledge and skills that it brings.

- Confidence and competence in the full range of practical skills, taking the initiative in, for example, planning and carrying out scientific investigations.
- Excellent scientific knowledge and understanding which is demonstrated in written and verbal explanations, solving challenging problems and reporting scientific findings.
- High levels of originality, imagination or innovation in the application of skills.
- The ability to undertake practical work in a variety of contexts, including fieldwork.
- A passion for science and its application in past, present and future technologies.

**Children's knowledge will be shown by:**

Artwork related to the aurora  
Reports from Scientific experiments

**Extended Writing:**

Information texts about the phenomenon and how it is created,  
Image poems to describe the beauty of the lights  
Losing Tales linked to the book The Northern Lights by Philip Pullman.

**Purposeful Outcome – Added by class teachers after completing topic web.**

**Create Explore Discover**

# Year 4 Autumn 1 – Under the Aurora

Subject	Objective
Science	<ul style="list-style-type: none"><li>• Ask relevant questions.</li><li>• Set up simple, practical enquiries and comparative and fair tests.</li><li>• Gather, record, classify and present data in a variety of ways to help in answering questions.</li><li>• Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.</li><li>• Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li><li>• Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.</li><li>• Identify differences, similarities or changes related to simple, scientific ideas and processes.</li><li>• Use straightforward, scientific evidence to answer questions or to support their findings.</li><li>• Compare how things move on different surfaces.</li><li>• Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li><li>• Observe how magnets attract or repel each other and attract some materials and not others.</li><li>• Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.</li><li>• Describe magnets as having two poles.</li><li>• Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li><li>• Recognise that they need light in order to see things and that dark is the absence of light.</li><li>• Notice that light is reflected from surfaces.</li><li>• Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</li><li>• Recognise that shadows are formed when the light from a light source is blocked by a solid object.</li><li>• Find patterns in the way that the size of shadows change.</li></ul>
Geography	<p>Name and locate the Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle and date time zones. Describe some of the characteristics of these geographical areas.</p>

## Topic Overview

### Topic Hook

Campfire outside with marshmallows and hot chocolate.

### Title: Under the Aurora Curriculum Driver: Science

### Topic Outcome

### Coverage (Main Focus)

1. Hook lesson- Campfire outside with marshmallows and hot chocolate. Showing them the northern lights and get their predictions about what they could be and how they are there. Talking about the darkness and the absence of light and how they think this happens.
2. Northern lights art lesson. Exploring how the northern lights are made. Using different mediums to create their art.
3. Shadow puppets- looking at how we can create different shadows and how moving the light source can effect this.
4. Free write- related to English text 'The Dark'
5. Reflection and sun safety- how to protect our eyes from light sources and from reflections.
6. How to make a light source using circuits then use these to test a range of materials for opaque, transparency and translucent.
7. Make a decoration using transparent, translucent and opaque materials.
8. Science magnet experiment- looking at how the poles attract and repel.
9. Can you fool gravity? The great egg drop experiment- parachute.
10. Extended write- Myth about where the northern lights have come from and what they were believed to be.

### Free Writing Stimulus

Free write- based on 'the dark' story

### Extended Writing Genres and Activities

Extended writing- Myth about where the northern lights come from and what they were believed to be.

### Trips and Experiences

Trip to Bradford Science Museum  
Campfire outside

### Other subject Coverage

List activities

**Cooking** – Cooking around the campfire. Toasting marshmallows.

**Geography** – Where are the northern lights? Using map skills from previous topic to research where you can find them. Aurora hunters!

**Art** – Aurora art using different mediums.

### Linked Texts

