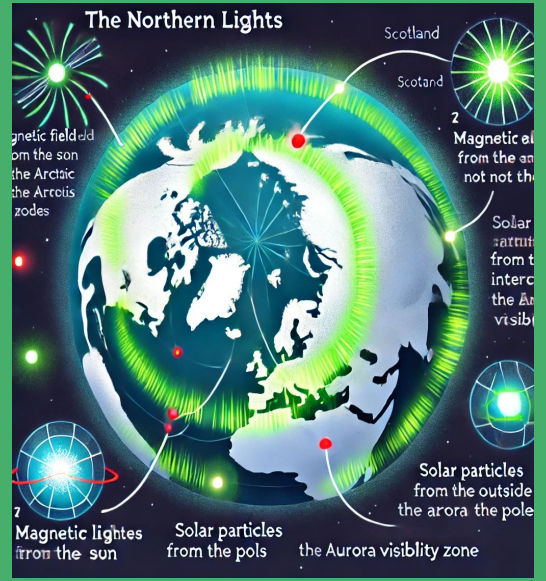




### How does light work?

Focus - Key Questions	Links	Destinations (I will be able to ...)
What is a lighthouse used for?	<i>Whole School Theme: We are Scientists</i> <i>Reading: Featherlight</i> <i>Art / DT: What makes a lighthouse work well?</i>	<ul style="list-style-type: none"> <li>● Know what a lighthouse is</li> <li>● Know what lighthouses are used for</li> <li>● Know where lighthouses are found</li> <li>● Know how to read map symbols using a key</li> </ul>
What are the Northern Lights?		<ul style="list-style-type: none"> <li>● Know what the Northern Lights are</li> <li>● Know how to explain physical geography processes</li> </ul>
Why are the Northern Lights visible in some places and not others?		<ul style="list-style-type: none"> <li>● Know where the Northern Lights are visible</li> <li>● Know why the Northern Lights are visible in some places and not others</li> <li>● Know how to compare the physical geography of two places</li> </ul>



Assessment in History & Geography

**Identify**

**Teach**

**Review**

**Plan**

**Assess**

**Adopt**

<b>Northern Lights</b>	Beautiful, colorful lights in the sky near the North Pole (also called the Aurora Borealis)
<b>solar wind</b>	Invisible gas from the sun that helps create the Northern Lights.
<b>magnetic field</b>	An invisible shield around Earth that protects it from space energy.
<b>coastline</b>	The land next to the sea.
<b>map symbols</b>	Small pictures on a map that stand for real things.
<b>map key</b>	A list that explains the symbols on a map.
<b>lighthouse</b>	A tall tower near the sea that shines a bright light to help ships stay safe.

# Geography - Year 3 Spring 2: Scheme of Learning

## How does light work?



### Lesson 1: What is a lighthouse used for?

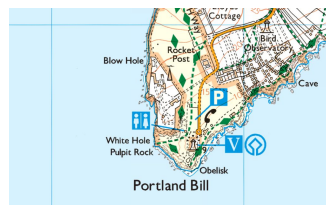
#### Routine

#### Modes of Learning

#### Whole class:

Explain that today starts our first Geography lesson for We are Scientist. Explain that although we are focussing on science, we still need to use our geography skills to help us better understand the science we are learning.

Look back at Learning Journey - remind them of what we learnt in Autumn term and Spring 1.



Remind students of our enquiry for this half term. Show their Knowledge Organisers and stick them in their books. Explain how these will be used. Read the key question and destinations for today's lesson.

Show children an image of a lighthouse ask if anyone has ever seen one before. Then show a video of a lighthouse in action during a storm. Ask them what they think it's for? Explain the purpose of a lighthouse is to help ships navigate safely, warn about dangerous areas like rocks or shallow waters and provides light to guide ships at night. Show a brief diagram of the different parts.

#### In pairs:

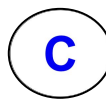
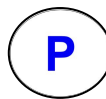
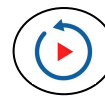
Children look at a map of the UK and put cubes where they think lighthouses might be. Address any misconceptions if children are putting their cubes inland.

#### Whole class:

Show them pictures again and remind them that lighthouses are usually near coasts, cliffs, or islands. Show them an OS map online which includes a lighthouse. Ask them if they can spot the symbol. Then show them the key.

#### Independently:

Give students their own version of the OS map and key and ask them to circle the lighthouse. They then write in their own words what a lighthouse is, what they are used for and where they are found. They could then draw a diagram.



Plenary: (Destinations) I will be able to ...

- Know what a lighthouse is
- Know what lighthouses are used for
- Know where lighthouses are found
- Know how to read map symbols using a key



Next Step: (Adapting planning)

Absent Pupils

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# Geography - Year 3 Spring 2: Scheme of Learning

## How does light work?



### Lesson 2: What are the Northern Lights?

#### Routine

#### Modes of Learning

#### **Prior Learning:**

Starter activity based on previous lesson destinations which were not achieved.



#### **Whole class:**

Show video of the Northern Lights and ask students whether they have seen this before and what they think is happening in the sky. Explain that these are called the Northern Lights and today they will discover what causes them.

Explain that the Northern Lights are caused by energy from the Sun colliding with Earth's atmosphere near the North and South Poles. "The Sun sends out tiny particles called solarwinds. When these particles hit the Earth's atmosphere, they light up the sky in colours." Use a torch and magnet to demonstrate how energy from the Sun travels and reacts near the poles.

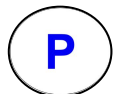
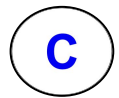
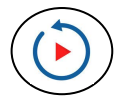
Watch a video to reinforce this idea in a simple way.

#### **In pairs:**

Children need to re-order an explanation with pictures about how the Northern Lights happen.

#### **Independently:**

Children then draw a comic strip to explain the process using accurate vocabulary. LA could reorder writing then draw pictures.



Plenary: (Destinations) I will be able to ...

- Know what the Northern Lights are
- Know how to explain physical geography processes



Next Step: (Adapting planning)

Absent Pupils

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# Geography - Year 3 Spring 2: Scheme of Learning

## How does light work?



### Lesson 3: Why are the Northern Lights visible in some places and not others?

#### Routine

#### Modes of Learning

#### Prior Learning:

Starter activity based on previous lesson destinations which were not achieved.

#### Whole Class:

Ensure children are clear on what the Northern Lights are and how they happen. Ask if anyone has seen them in real life. If so, ask where, if not ask them why do they think they haven't. Remind them what North and explain that these are only visible in the North of the world.

#### In pairs:

Show a world map and children have to place counters in the North. Ask which countries their counters are on. Check misconceptions and explain the Northern Lights are visible in places like Norway, Finland and Iceland (even Scotland!).

#### Whole Class:

Show photographs of the Northern Lights in each location on a world map. Show them a globe again and a glowing light in the Northern locations. Ask them why you can't see them in somewhere like Spain etc. (it's too far south!) Reinforce that also if it's cloudy they aren't visible either.

Show them a table with the headings same and different. Explain what comparing means and use example of Scotland and Norway. They are the same because you can see the Northern Lights in both locations but they are different because it has to be really strong to see it in Scotland because it is not as far North.

#### Independently:

Children answer today's question using examples from the lesson, ensuring they focus on location and weather of each place. (HA can mention other factors such as the strength of the solar winds).

Plenary: (Destinations) I will be able to ...

- Know where the Northern Lights are visible
- Know why the Northern Lights are visible in some places and not others
- Know how to compare the physical geography of two places

Next Step: (Adapting planning)

Absent Pupils

