



Luke Jerram's

HELIOS

See the sun in a whole new light

Teacher-Led Resource

ABOUT HELIOS

Helios is a large-scale artwork by Luke Jerram inspired by the Sun.

Measuring six metres in diameter, the installation uses detailed images of the our nearest star. At an approximate scale of 1:200 million, each centimetre represents around 2,000 kilometres of the Sun's surface.

The Sun is dangerous to look at directly, but Helios offers a rare chance to look closely at features such as sunspots, filaments and also features the source of the solar flares which caused the Northern lights to be visible from the UK in May 2024.

The artwork combines science, art, and music and invites us to think about the Sun's importance in everyday life, for light, warmth and energy.

The surface of Helios is made from around 400,000 photographs of the Sun, captured by NASA.

In ancient Greek mythology, Helios was the god of Sun, travelling across the sky in a chariot each day and marking the passing of time and seasons.



How can one artwork help us see the Sun in new ways?



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ABOUT THIS RESOURCE

This self-led resource supports pupils to explore Helios through observation, discussion, creative response and curriculum-linked enquiry. It focuses on key themes such as energy, art, science and music. It includes enquiry questions, looking prompts and activities to support meaningful discussion and exploration. These are some suggested prompts and starting points, you might select a theme or combine aspects of multiple. Included are curriculum links to make it easy to link to classroom learning.

Explore the Wakefield Curriculum

The Wakefield Curriculum is a, free to download, place-based creative learning resources for Early Years and Primary teachers, developed during Our Year 2024. It brings together local creativity, culture, heritage, movement and community, helping children connect learning to the places around them.

The curriculum explores three key themes:

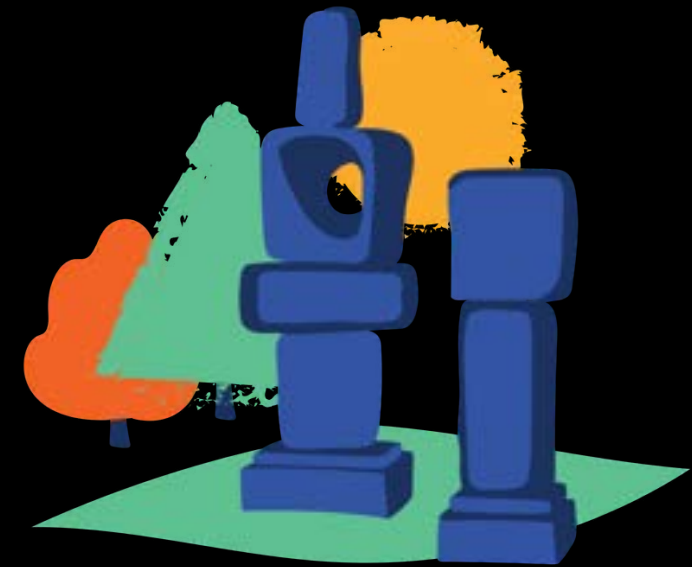
- Coal Mining
- The Local Environment
- Sculpture

Many of the ideas in these resources connect naturally with Helios, including:

- slow looking and careful observation
- exploring sculpture
- thinking about nature and the environment

Explore the Wakefield Curriculum - New Resources coming soon!

[The Wakefield Curriculum Resources](#)



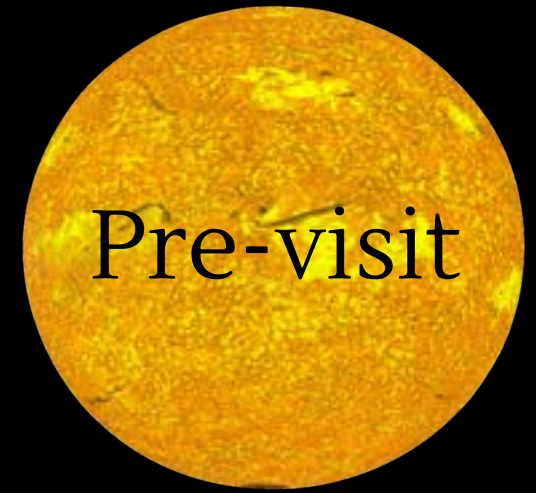
Looking at Sculpture

Use these questions from the [Exploring Sculpture Resource](#) when looking at Helios

- ☀️ What do you notice first?
- ☀️ What colours can you see in the sculpture? Do the colours remind you of anything?
- ☀️ What is the surface like? What textures can you see? What do you think it would feel like if you could touch it?
- ☀️ How do you think the sculpture was made? What materials is it made from?
- ☀️ How big do you think the sculpture is?
- ☀️ How does the sculpture make you feel? E.g. big, small, calm, angry, sad, thoughtful.
- ☀️ If the sculpture could speak, what would it say?
- ☀️ What do you think this sculpture is about? Does it remind you of anything?
- ☀️ What do you think inspired the artist to make their sculpture?

Nature & Environment

How does the Sun help life on Earth to grow and change?



Explore outdoor spaces around your school or setting.

- ☀ How many different plants can you find?
- ☀ Which plants grow in sunny places?
- ☀ Which plants grow in shade?
- ☀ What changes in nature when the weather is sunny?
- ☀ What does a plant need to grow?
- ☀ Can you identify any insects, birds or animals?

Mini nature survey

Create a tally or sketchbook record of:

- ☀ birds
- ☀ insects
- ☀ flowers
- ☀ trees
- ☀ shadows

Think & Talk

- ☀ What does a plant need to grow?
- ☀ Why is sunlight important for living things?

Vocabulary: habitat - warmth - growth - season - environment - climate

Nature & Environment



Stand beneath Helios and imagine the Sun's energy reaching Earth.

Notice & Wonder

- ☀️ What do you notice when you stand beneath Helios?
- ☀️ What colours, patterns and textures can you see?
- ☀️ How would you describe the sun's surface?
- ☀️ How does it make you feel?

Think like a scientist

- ☀️ The Sun is nearly 150 million kilometers from Earth. How does its energy still reach us?
- ☀️ What living things depend on the Sun?
- ☀️ What would happen if the Sun's light disappeared?

Move like nature

- ☀️ Can you curl up like a seed waiting for warmth?
- ☀️ Can you stretch and grow slowly like a plant reaching towards sunlight?
- ☀️ Can you move like sun rays beaming from the sun's surface, bouncing off the walls, trickling through trees in the wind?

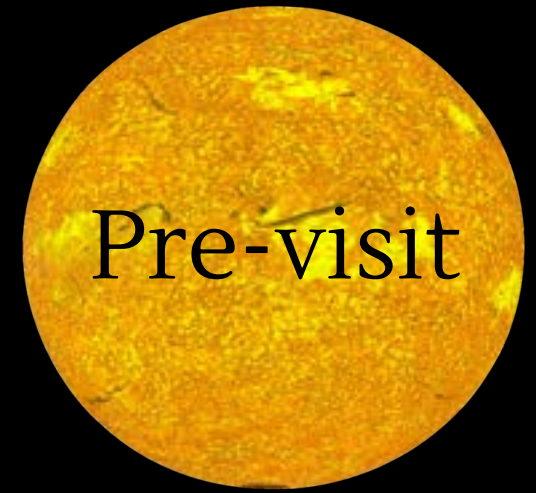
Nature & Environment



Activities:

- ☀️ Sort animals or plants into sunny and shady habitats
- ☀️ Create a Sun Diary - observe:
 - where is the sun in the morning compared to the afternoon?
 - the weather over the week - using describing words thinking about the light, temperature, plants and animals you notice
 - What changes each day?
- ☀️ Explore your school surroundings with this resource inspired by [The Hepworth Wakefield's Garden Sketchbooks](#)
- ☀️ Plants growing in direction of sunlight : Science – Plants, Light
<https://www.youtube.com/watch?v=WNOSQmBJIp8>

Space, Scale & Science



Just how big is the sun?

Compare sizes:

Can you find objects that are:

- ☀️ Tiny
- ☀️ small
- ☀️ medium
- ☀️ HUGE

Try comparing:

- ☀️ a marble
- ☀️ a football
- ☀️ a beach ball
- ☀️ Which could represent the Earth? Which could represent the Sun?

Think & Talk

- ☀️ Is the Sun bigger or smaller than Earth?
- ☀️ How far away do you think the Sun is?
- ☀️ Why does the Sun look small in the sky even though it is enormous?

Move & Measure

- ☀️ Can you stretch your arms to show something gigantic?
- ☀️ How many footsteps would it take to cross the room? How many footsteps would it take to cross the Sun?
- ☀️ How could we measure something too large to hold?

Space, Scale & Science



Stand underneath Helios and look carefully at its size and surface/

Quick facts:

- ☀ Helios is 6 metre wide
- ☀ 1cm = 2,000km
- ☀ Created using real images of the Sun

Look closely

- ☀ How big does Helios feel?
- ☀ Does it feel bigger than you expected?
- ☀ What details can you see when you move closer?
- ☀ What happens when you stand far away?

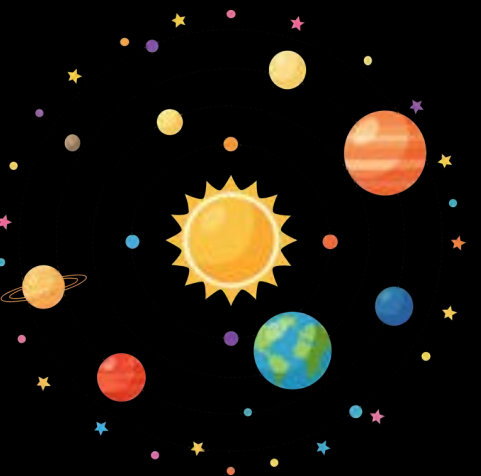
Compare the plants

The Earth is tiny compared to the Sun

Use the scale planet models to compare:

- ☀ Earth
- ☀ Jupiter
- ☀ Saturn
- ☀ Mars

Ask to borrow our planets pack to see the scale compared to Helios!!



Move & Explore

- ☀ Can you orbit around the Sun like a planet?
- ☀ Can you move like the solar system?
- ☀ Which feels surprisingly small?
- ☀ Why might artists use scale to create awe and wonder?

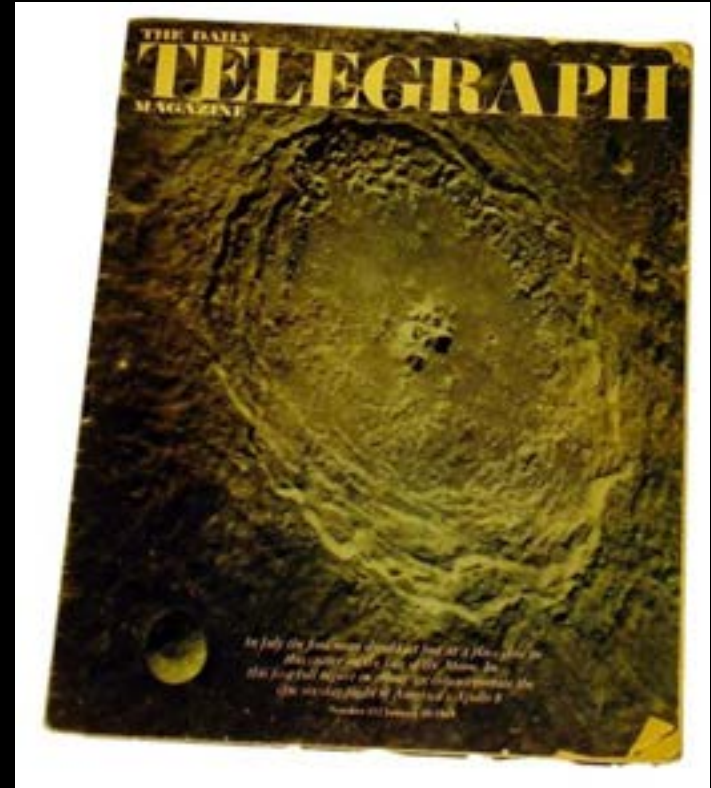
Did you know?

- ☀ The Sun is a star at the centre of our Solar System
- ☀ More than one million Earths could fit inside the Sun
- ☀ Earth travels around the Sun once every years

Space, Scale & Science

In July 1969, the first humans landed on the Moon. This magazine cover celebrates the excitement of space exploration with a photograph of a crater on the moon. It looks back to Apollo 8, the first crewed mission to reach and orbit the Moon in December 1968, even though it did not land. It also looks ahead to Apollo 11, the mission that would make history.

Apollo 11 began its journey on 16 July 1969. Astronauts Neil Armstrong, Buzz Aldrin, and Michael Collins travelled to the Moon, where Armstrong and Aldrin became the first people to walk on its surface. The mission ended when they safely returned to Earth, splashing down on 24 July 1969.



Daily Telegraph magazine to commemorate the first man on the moon, dated January 10th, 1969.

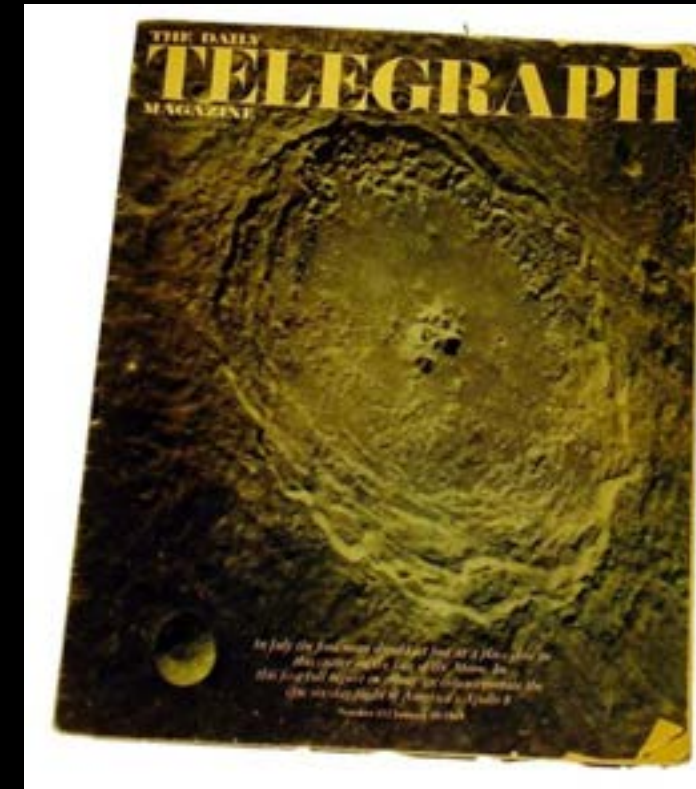
Space, Scale & Science

Imagine:

- ☀️ You are standing on the Moon. What can hear? What can you see?
- ☀️ What would it feel like to travel through space?
- ☀️ Who would you take on your space mission and why?
- ☀️ What would Earth look like from far away?
- ☀️ What would you take with you on your space travels?
- ☀️ Which planet would you like to explore and why?

Make and design a Galaxy

- ☀️ Get a piece of paper
- ☀️ Use colouring pencils, paint, or pastels to colour the whole page in different colours.
- ☀️ Find some round objects in different sizes and draw around them on the page
- ☀️ Paint the background black or dark blue, leaving the circles clear
- ☀️ The circles should look like planets
- ☀️ Use a white or yellow pen or paint to add stars

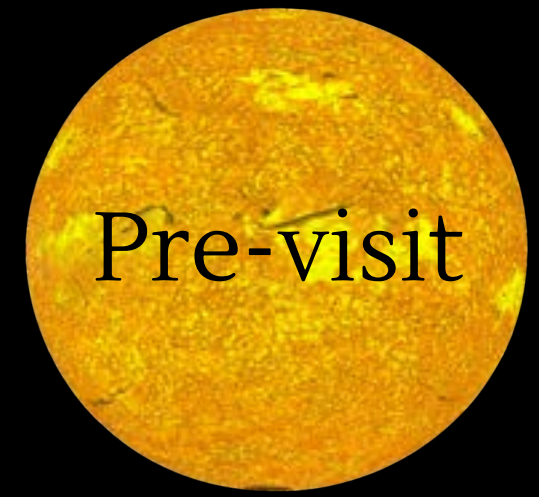


Daily Telegraph magazine to commemorate the first man on the moon, dated January 10th, 1969.



Museum
highlight!

Light & Energy



Notice how sunlight changes during the day.

- ☀️ Where does sunlight fall in your classroom in the morning?
- ☀️ Where is it in the afternoon?
- ☀️ Can you find any shadows? How do they change?
- ☀️ How many words can you think of to describe light?
- ☀️ How can we use energy from the Sun?

Vocabulary: glow - shadow - bright - dim - reflection - warmth

Energy

- ☀️ What materials reflect heat?
- ☀️ What materials absorb heat?

Warm up game: Hot & Cold

Hide and object linked to light or the Sun

Guide pupils using:

Warmer
colder



Sunshine in Clarence Park. Photo taken between 1930 – 1950

Light & Energy

As you stand beneath Helios, look closely at how light changes the space.

- ☀️ Where is the brightest part?
- ☀️ Does the light feel warm, soft, sharp or calm?
- ☀️ Where do shadows appear?
- ☀️ How does the light affect the atmosphere in the room?

Think & Talk

- ☀️ Why do we need the Sun?
- ☀️ What would happen without it?
- ☀️ How does sunlight make you feel?
- ☀️ What does the Sun make you think of?
- ☀️ Why is solar energy renewable?
- ☀️ How is it different from fossil fuels?
- ☀️ Why might solar power matter in the future?



Light & Energy

People have always found ways to make light when the Sun has gone down.

Take a look at these objects that can be found in Castleford, Pontefract & Wakefield Museums collections.

Compare:

- ☀️ Which light do you think would be brightest? Why?
- ☀️ Which would feel warmer or colder? Are the colours of the light different? Why might that be? Describe them.



miner's safety lamp, 1930s – 1940s



motorcycle oil headlamp 'Eli Griffiths and Sons Ltd, Bradford St, Birmingham', dated 1900 - 1930



A reproduction silver candlestick, similar to ones used in wealthy homes between 1400 and 1650



replica ceramic red-clay satyre or face oil lamp with moulded decoration



black and yellow plastic Durabeam torch, dated 1980 - 1990



Museum highlight!

Castleford, Pontefract & Wakefield Museums are cared for by Wakefield Museums & Castles, Wakefield Council. All images are courtesy of Wakefield Council unless otherwise stated.

Light & Energy

How can we use the sun to tell time?

Sundials

Before clocks were invented, people used sundials to tell the time. Sundials are some of the oldest timekeeping instruments. They are usually made of two parts: a flat, circular surface called the dial plate, which has markings for each hour, and a raised piece called the gnomon. As the sun moves across the sky, the gnomon casts a shadow onto the dial plate. The position of the shadow shows what time it is.

Here you can explore some sundials in Wakefield district!

Have you tried the sundial at Pontefract Castle? You can have a go yourself and become part of the sundial!

Visit the castle to tell the time and step back through history.

Pontefract Castle Sundial



The sundial on St Giles' church, Pontefract. It was repainted around 1990. Photo taken between 1990 – 1995.



Museum
highlight!

Light & Energy

- ☀ Draw the same object in light and shadow
- ☀ Drawing from shadows
- ☀ Write or discuss: what would life be like if the Sun disappeared for one day?
- ☀ Can light help us tell the time? Try making your own sundial: [Make a sundial - Met Office](#)

Did you know?

- ☀ The Sun's light travels around 93 million miles to Earth in just over 8 minutes.
- ☀ The Sun gives us light energy, which can be captured by solar panels. Solar energy is renewable, which means it won't run out for billions of years.

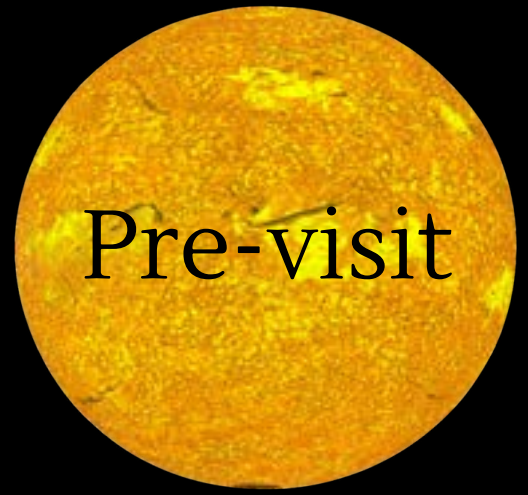
Make a solar oven!

You'll need:

- ☀ Pizza box or small cardboard box
- ☀ Foil
- ☀ Plastic wrap
- ☀ Tape & scissors
- ☀ Marshmallow



Art, Texture & Photography



Pre-visit

Explore sculptures in your local area with examples from Yorkshire Sculpture Park, The Hepworth Wakefield and public spaces. Take a look at the sculpture cards in the Local curriculum.

Discuss sculptures using the prompts at the start of the PowerPoint.

Art, Texture & Photography

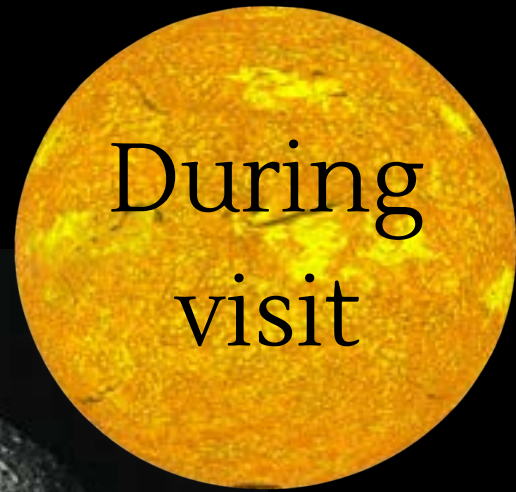
Compare & Contrast with Exploring Sculpture Resource

In groups or individually, ask pupils to choose one other sculpture by Luke Jerram and compare it with Helios.

Write down 3 words to describe the sculpture. This could include:

- ☀️ how the sculpture looks
- ☀️ what the sculpture is about
- ☀️ the texture of the sculpture
- ☀️ the colour of the sculpture
- ☀️ the materials used to make the sculpture
- ☀️ the size of the sculpture
- ☀️ how the sculpture makes you feel

Compare your words, are they similar or different? Why is it important that we have different ideas?



Museum of the Moon



Mirror Moon



Gaia



Mars

Art, Texture & Photography



Post-visit

Barbara Hepworth was born in Wakefield and used circular, sun-like forms to symbolise the sun, moon and stars reflecting her fascination with space exploration, light and natural cycles.



Disc with Strings (Moon), 1969: Aluminium disc with strings.



Disc with Strings (Sun), 1969: A polished bronze disc with strings



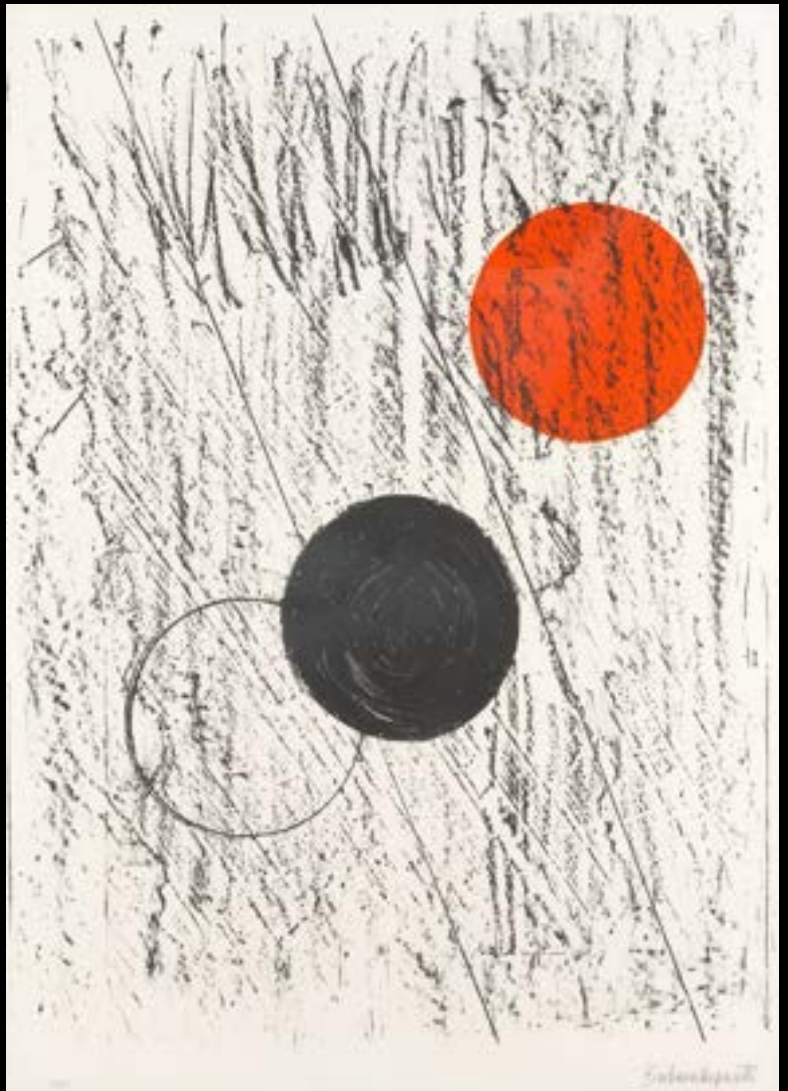
Sun and Moon, 1966: bronze

Art, Texture & Photography



Post-visit

Lots of Hepworth's work focuses on the natural world and light . When she lived in St Ives she made lots of artworks after seeing how the light changed daily and with the seasons.



Sun and Moon, 1969,
Lithography on paper



Sun Setting, 1970-1971



Sun and Marble (1971)

Art, Texture & Photography

Photography challenge

Capture:

- ☀️ Light
- ☀️ Shadow
- ☀️ Warmth
- ☀️ Reflections
- ☀️ Texture

Activity:

Create

- ☀️ Layered circular prints
- ☀️ 3D sculptures using organic or circular forms take a look at ArtJohn's video for making simple sculptures
- ☀️ String drawings: using string dipped in glue make surface textures and drawings
- ☀️ Texture relief drawings: find different textures and make rubbings and then add colour circles and designs over the top



A photograph of four children by a church gate, one in a wheelchair. Children playing. Photograph taken by David Gluck of Pontefract during the 1930s.

Art, Texture & Photography

A fire mark is a special metal sign that was put on the outside of a building a long time ago. It showed that the building had fire insurance.

Hundreds of years ago, different companies protected buildings from fire. Each company had its own fire service, and they would look for their mark on a building. If they saw their fire mark, they knew they were responsible for putting out the fire.

Fire marks often had pictures or symbols on them, like this sun-shaped fire mark from The Sun Insurance Company.

In places like Wakefield, some buildings may still have these fire marks today, giving us a clue about how people lived and stayed safe in the past.

There have been many different designs and symbols for the Sun. How would you draw the sun?

Think about words to describe the sun such as: heat, fire, light, rays, bright, round, sphere, warm, energy

Museum
highlight!



A sun shaped fire mark issued by The Sun Insurance Company.

Castleford, Pontefract & Wakefield Museums are cared for by Wakefield Museums & Castles, Wakefield Council. All images are courtesy of Wakefield Council unless otherwise stated.

Wakefield
Museums
& Castles

Colour, Tints & Shades



How can colour change mood, atmosphere and feeling?

- ☀ Which colours stand out?
- ☀ Which areas feel hottest?
- ☀ How would you describe the colours?
- ☀ How does the sculpture change the mood of the room?
- ☀ Does the light feel, soft, glowing, fiery, dramatic? Why?

Compare & Contrast

- ☀ Barbara Hepworth also explore light and the sun in her artworks.
- ☀ How do the artists use colour similarly or differently?
- ☀ How have they shown light similarly or differently?

Colour, Tints & Shades



Experiment with mixing colours with watercolours:

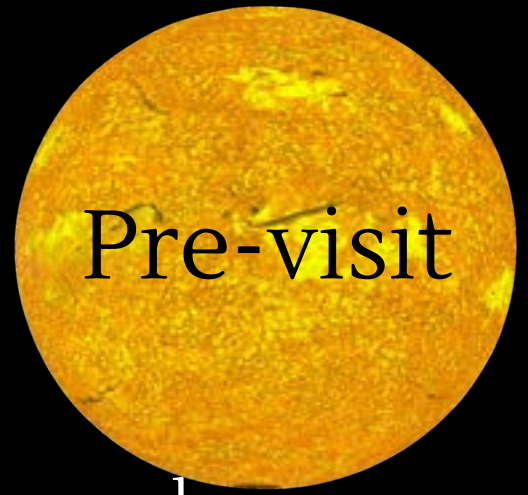
- ☀️ What happens when you add white to a colour? (tint)
- ☀️ What happens when you add black? (shade)
- ☀️ What happens when colours mix together?
- ☀️ Add different amounts of water to the paint
- ☀️ Compare strong and faded colours
- ☀️ Invent names for your colours

Look closely at different times of the day:

- ☀️ sunset
- ☀️ sun rise
- ☀️ midday
- ☀️ Can you recreate the colours you can see?

| | | | |
|-----------|-----------|--------------|------------|
| yellow | canary | gold | daffodil |
| flaxen | butter | lemon | mustard |
| corn | medallion | dandelion | fire |
| bumblebee | banana | butterscotch | dijon |
| honey | blonde | pineapple | tuscan sun |

Sound & Music



Helios has a soundscape - a piece of music that is played alongside
How can sound change the way we experience something? For example, music in a film or background music at a party?

Listen carefully

- ☀️ What sounds can you hear?
- ☀️ What sounds are near?
- ☀️ What sounds are far away?
- ☀️ What sounds are there indoors?
- ☀️ What sounds are there outdoors?

Sound Walk

Explore an outdoor space. Can you find:

- ☀️ soft sounds
- ☀️ loud sounds
- ☀️ natural sounds
- ☀️ mechanical sounds

Think & Talk

- ☀️ How do different sounds make you feel?
- ☀️ Which sounds feel calming?
- ☀️ Which sounds create excitement or tension?



During -
Visit

Sound & Music

Helios features a sound composition by Duncan Speakman and Sarah Anderson

Sit beneath Helios and take a deep breath. Close your eyes and listen carefully

- ☀️ What sounds can you hear?
- ☀️ What do they remind you of?
- ☀️ How do the sounds change the atmosphere?
- ☀️ Can you hear anything other sounds in the building?
- ☀️ How do sounds affect your breathing or your imagination?
- ☀️ What colours, memories or images come into your mind?

Activity

- ☀️ Draw while you listen: create marks, patterns or drawings inspired by the sounds you hear
- ☀️ Slowly orbit and walk around Helios while listening carefully. How does the music change your pace, your movement?

Think & Talk

- ☀️ Why might the artist include sound with the artwork?
- ☀️ How does music or sound change our emotions?

Sound & Music



Helios features a sound composition by Duncan Speakman and Sarah Anderson. It includes, it features the sounds of fire and heat; NASA space recordings from their sun missions; the dawn chorus (birdsong that occurs just before and after sunrise during spring and summer); a beach in the height of summer; sun and light related religious festivals and uplifting ambient music to communicate the importance of the Sun for our collective mental health and wellbeing

Activity

- ☀️ In groups or pairs, make a soundscape (a piece of music) inspired by the Sun, weather or space
- ☀️ Record natural sounds outdoors
- ☀️ Create sound effects for sunrise, sunset or an eclipse

- ☀️ Listen to these classical music peiece about the seasons. Can you hear different instruments? Which ones can you identify? Which season do you think is being described?
- ☀️ Vivalkdi's Four Seasons
- ☀️ Tchaikovsky's The Seasons

Sun Stories, Rituals & Beliefs

How have people across the world told stories about the Sun and nature?

Today, we define the sun as a physical object - a star approximately 91 million miles away that governs our seasons and anchors our planetary system through the laws of gravity.

Different cultures and communities have imagined the Sun in many different ways:

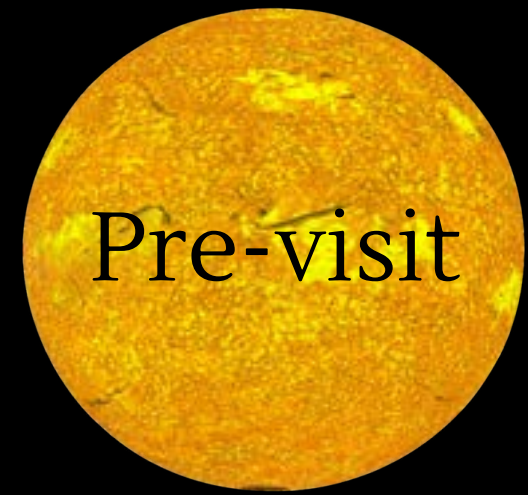
Across the world people celebrate the changing seasons and the movement of the Sun. Explore the stories and celebrations:

- ☀️ In Ancient Greece there was the god Helios who travelled across the sky in a golden chariot each day, bringing sunlight to Earth.
- ☀️ Thai Pongal; a Hindu harvest festival celebrated in January to thank the Sun God for a bountiful harvest
- ☀️ Chhath Puja; a solar festival starting at sunset and celebrates the Sun God Surya and another God called Chhathi Maiya for sustaining life on Earth
- ☀️ Summer solstice celebrates the longest day of the year and honours the sun
- ☀️ Inti Raymi is the Festival of the Sun, dedicated to Inti, the sun god who is a symbol of life, energy and prosperity. The festival includes traditional costumes, Andean music and ceremonial dances

Compare the similarities and differences of these celebrations.



A red-figured calyx-krater depicting the sun god Helios, from the [British Museum](#).



Gouache and ink painting from an album of 26 depicting scenes of Hindu mythology in a variety of painting styles. Surya, the Vedic sun-god, seated in his chariot.

Sun Stories, Rituals & Beliefs



Stand beneath Helios and think about how people have looked at the Sun throughout history.

Think & Talk

- ☀️ Why do you think people have told different stories about the Sun?
- ☀️ Does Helios remind you of a story, celebration or special occasion?
- ☀️ How does standing beneath Helios make you feel?
- ☀️ Why might some people believe the Sun is magical and powerful?
- ☀️ Why do communities celebrate the longest and shortest days of the year?
- ☀️ What symbols or images come into your mind when you think about the Sun?

Activity - draw Helios, create a storyboard or write a story thinking about:

- ☀️ If the Sun could speak, what would it tell us?
- ☀️ What name would you give the Sun?
- ☀️ What powers does the Sun have?
- ☀️ Imagine you are the first person ever to see the Sun rise. Write or draw what you think and feel.

myth - belief - ritual - celebration - tradition - symbol

Sun Stories, Rituals & Beliefs

Create your own Sun myth explaining:

- ☀️ the sunrise
- ☀️ the changing seasons
- ☀️ an eclipse
- ☀️ why plants grow

Design a symbol representing the Sun and explain its meaning.

Create a celebration for the Sun. Think about:

- ☀️ when it would happen
- ☀️ what people would wear
- ☀️ what music, food or activities would be included



Post-
Visit