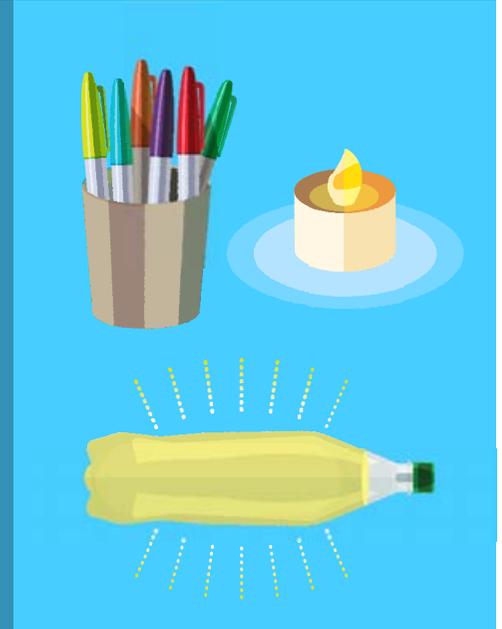
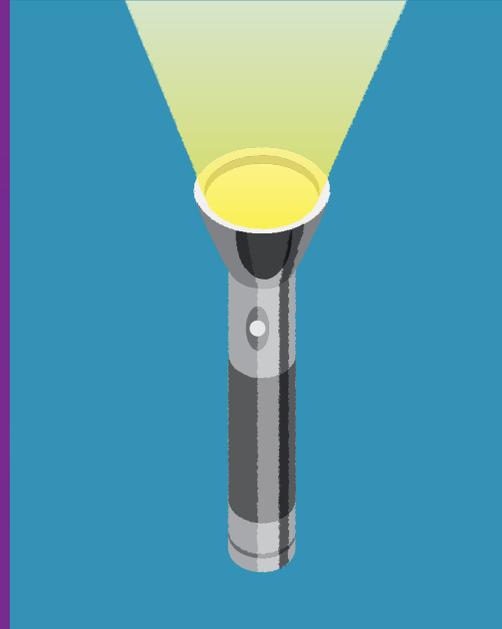


LIGHTING UP LONDON

ART & DESIGN

Learning objectives

- ◆ Learn about great artists, architects and designers in history
- ◆ To produce creative work, exploring their ideas and recording their experiences
- ◆ Evaluate and analyse creative works using the language of art, craft and design



LIGHTING UP LONDON

Discover

Activity: Analysing London's Light Art 6

Explore 7

Connect 8

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Activity 2: Litre of Light 11

Resources

Fact sheet 1: What is Light Art? 13

Fact sheet 2: Analysing Light Art together 17

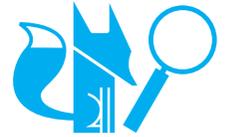
Activity sheet 1: Light Art analysis mind map 20

Activity sheet 2: Images of Lumiere London installations 21

Activity sheet 3: Walking Tour Maps 25

LIGHTING UP LONDON

DISCOVER



Duration: 60 mins

Setting the scene

Share the information in Fact sheet 1: What is Light Art? (page 13) with the pupils. Then move on to introducing pupils to Activity sheet 1: Light Art analysis mind map (page 20). Go through each of the questions in the analysis section of the map so that all pupils understand the analysis questions.

Analyse the two installations explored in Fact sheet 2: Analysing Light Art together (page 17) with the whole class. Show the images of the installations and have a class discussion before reading through the analysis bullet points on the factsheet. Focus on highlighting the differences in the types of light used in the two installations (LED in *Keyframes* and neon in *Neon Dogs*).

Activity: Analysing London's Light Art

Distribute Activity sheet 1: Light Art analysis mind map (page 20). You might want to group pupils so that they can analyse the pieces of art in groups, or you may wish to ask the pupils to work independently.

Then distribute a selection/range of images from Activity 2: Images of Lumiere London installations (page 21). Ask pupils to record their analysis of the images using the activity sheet you have already distributed to them.

Discuss pupils' analysis of the different installations with the whole class.

- ◆ Which did they prefer and why?
- ◆ Which type of light did they think produced the best results and why?

You might like to use the Lumiere website to help with the feedback of pupils' analysis. You can also find out what type of light the artist used for each installation on the website. When you click on each installation you will see a small box above the title of the artwork which indicates the type of light used:

www.lumiere-festival.com

Explain that the trip element of this topic will allow pupils to analyse more pieces of light art across London and that, at the end of this unit, pupils will be able to have a go at creating their own piece of light art.

LIGHTING UP LONDON

EXPLORE



We have recommended a number of permanent light installations that are situated across London, which you can visit with your pupils. We have drawn up two walking trails which include a number of the more central light installations. These can be found in Activity sheet 3: Walking Tour Maps (page 25).

Distribute Activity sheet 1: Light Art analysis mind map (page 20) to each pupil before setting off. You might want to photocopy the page multiple times for each pupil, if they're going to be visiting more than one installation on their trip. The sheet will encourage pupils to record the pieces of art visited and analyse them, along the same lines as they did in the discover activity.

If you do not wish to follow the trails you can choose any number of the installations to visit, or indeed, if you find any local pieces of light art then you can explore them instead.

The list below highlights some good examples of light art to visit in London:

- ◆ Oversized domestic light bulbs, James Glancy Design, Ganton Street
- ◆ *Shaida Walking*, 2015, Julian Opie, installed by Artichoke as part of Lumiere London, Broadwick Street/ Carnaby Street
- ◆ *Plug and Socket*, James Glancy Design, corner of Ganton Street
- ◆ *Traffic Light Tree*, Pierre Vivant, near Billingsgate Market
- ◆ *Identified Flying Object*, Jacques Rival, King's Cross
- ◆ *Pipette* – King's Cross Tunnel, by Miriam Sleeman, Tom Sloan, Allies & Morrison, Speirs + Major
- ◆ Trinity Laban Faculty of Dance (Laban Building), Deptford
- ◆ *Vital Signs*, Spencer Finch, Brewer Street
- ◆ The light sculpture on top of the BBC building, Regent Street
- ◆ *Breathing*, Jaume Plensa, BBC Broadcasting House, Regent Street
- ◆ *Unnamed*, Southwark Council, Southwark Street
- ◆ *Swarm Study / III*, Random International, Victoria & Albert Museum
- ◆ *RN924 Wavelength*, Rob and Nick Carter, Victoria Street
- ◆ *Arch 401 – Gill Sans with Ron Haselden*, Arch 401, Great Suffolk Street



THE TRAFFIC LIGHT TREE, SCULPTURE BY PIERRE VIVANT © Adrian Chandler

LIGHTING UP LONDON CONNECT



LITRE OF LIGHT

Activity 1 duration: 60 mins

Activity 2 duration: 60 mins

Setting the scene

Both activities in this topic involve practically creating light installations. You may choose to do both activities or, as they do not naturally follow on from each other, you may choose just one activity.



LIGHTING UP LONDON CONNECT



Activity 1: Creating a Light Installation

Explain that in this session pupils will be working together to create their own piece of light art based on images or drawings produced during the Explore activity.

Recap on the learning in this topic to date and feed back some of the analysis of the light installations that you explored on your visit.

If the activity is followed independently, the photographs of the light installations from Lumiere London can be used as a resource. Pupils can produce their own drawings in response to the light art.

The installation will be created out of a number of cylinders of low opacity tracing paper. Each cylinder will be lit with a flickering/non-flickering LED tea light. All of the cylinders can be grouped and sited by the whole class. Once the installation is complete it should be photographed or even filmed for further display.



Extension opportunities

- ◆ To develop and enhance the installation encourage the pupils to make cylinders of different heights and widths
- ◆ Pupils could discover how felt tip pens alter the opacity of the tracing paper to create a more expressive effect
- ◆ Through using flickering and non-flickering LEDs the pupils could create an additional and more dramatic effect.

LIGHTING UP LONDON CONNECT

Activity 1: Creating a Light Installation

You will need:



Good quality A4 tracing paper



Any drawings made on the visit or resource sheets



Felt tip pens



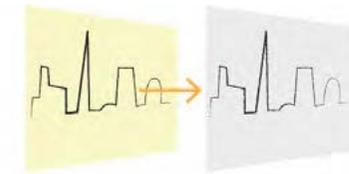
Sellotape



LED tea lights (flickering or non-flickering)

Instructions

1. Using sheets of A4 plain paper (landscape or portrait) and black pens, the pupils can draw out the light installation/scene of London.
2. Once completed the drawings need to be photocopied onto tracing paper (pupils can also draw straight onto the tracing paper) – the original drawing can be kept for colouring and display with the installation.
3. The pupils can then use felt tip pens to add colour to the tracing paper copied drawings. By the addition of colour the lights will look attractive unlit and when lit they will create a tonal effect.
4. Next the pupils should make a cylinder with the tracing paper and secure it with sellotape.
5. The class or smaller groups/tables can then agree the structure/layout of the installation of the lights.
6. Once the installation is agreed the LEDs can be turned on and placed under the cylinders.
7. Photograph/film the effect.



LIGHTING UP LONDON CONNECT



Activity 2: Litre of Light

Explain that in this session pupils will be working together to create their own piece of light art.

Recap on the learning in this topic to date and feed back some of the analysis of the light installations that you explored on your visit.

This activity is taken from the *Litre of Light* movement, whose aim is to provide ecologically sustainable and cost-free lighting for simple houses with tin rooves. In this activity, you'll be creating your own light installation which will be powered by the sun (solar powered).

More than 1 billion people across the globe live in extreme poverty with less than 80p per day to live on. Many low income families around the world do not have access to light even during the day time and cannot afford the cost of electricity, which is what we use to light our homes. Having no light means that many people can't read a book, do their homework or even cook in their homes.

Luckily, it is possible to bring sunlight into a windowless room, using just water and a plastic bottle. It is called a "solar bottle bulb" and you can create one now.

Find out more about the Litre of Light movement here:

**[sculptthefuturefoundation.org/
portfolio/my-shelter-foundation-
global-lighting-project/](https://sculptthefuturefoundation.org/portfolio/my-shelter-foundation-global-lighting-project/)**

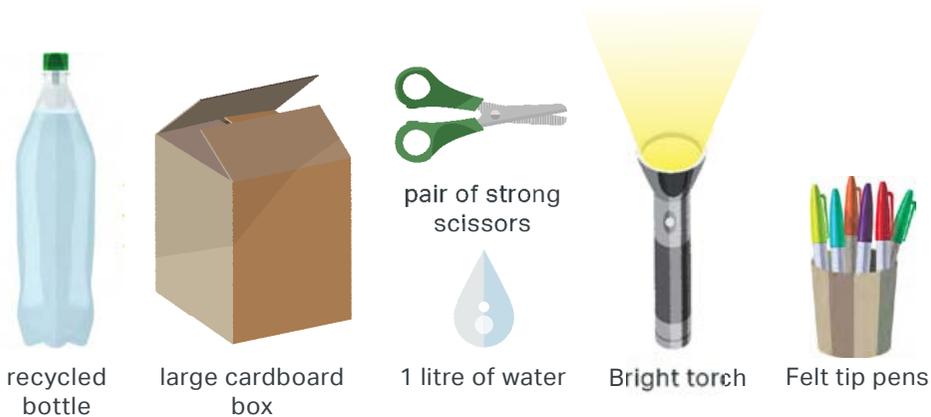
Unlike the Litre of Light, you will use a cardboard box instead of galvanized metal sheets. This means that the pupils can test the lightbulb in a contained environment. By looking inside the box, they will be able to see how the bottle channels the light from outside and illuminates the inside of the box.

You might like to ask pupils to decorate the bottles using good quality felt tip pens, so that the resulting installation uses colour.

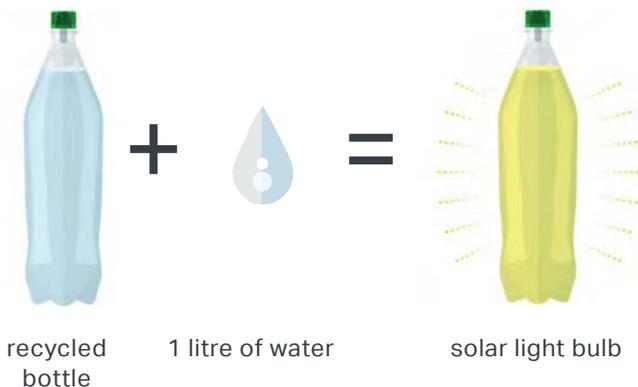
LIGHTING UP LONDON CONNECT



Activity 2: Litre of Light



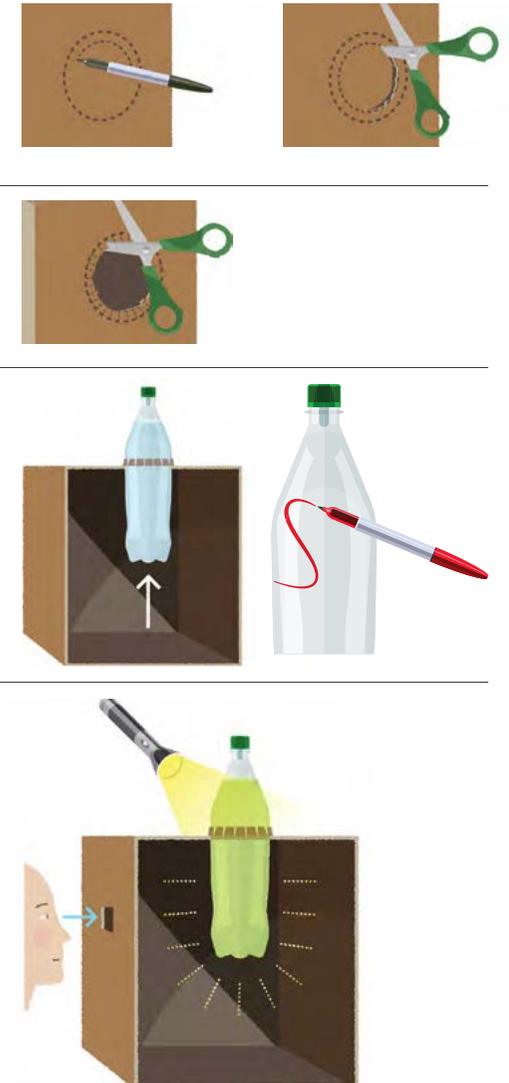
The technology behind Litre of Light



as bright as a
55
watt
electric
bulb

Instructions

1. Draw two circles in the side of the cardboard box. The outer circle needs to be the same size as the bottle. Cut out the inner circle.
2. Cut the 1 cm difference radially, making strips and bend upwards, perpendicular to the cardboard box wall.
3. Fill the bottle with water and insert the upper third of the bottle into the hole in the box.
4. Ask pupils to decorate their bottles with felt tip pens.
4. Cut peepholes or a larger window in the opposite side of the box to the bottle.
5. Shine the torch or light into the bottle from the outside of the box.





FACT SHEET 1: WHAT IS LIGHT ART?

Light art is a form of art that is either a sculpture that uses light or projection of colours or shapes onto a surface. Throughout the history of art, light has been an influence for artists and craftsmen using glass. It was not until the twentieth century that artists were able to use light as a sculptural form. Neon tubes were used for advertising and were adopted by artists as another expressive form. In the 1960s a group of American artists formed the Californian Light and Space Group. Bruce Nauman, a member of the group has produced signs which use words made out of multicoloured neon light bulbs.

Light projections are a much more modern form of light art using floodlighting and projectors. The projections make use of existing surfaces on buildings and other constructions. Light sculptures and light projections make use of the environment around them and can be designed specifically for the space creating installations. Although light art is often site-specific many works of art are designed for only a temporary period of time.

What is an installation?

An installation is an arrangement of objects designed for a specific place and for a temporary period. Installations often use three-dimensional items.

Famous artists who use lights:

- ◆ Bruce Nauman (USA)
- ◆ Tracey Emin (UK)
- ◆ Dan Flavin (USA)
- ◆ James Turrell (USA)
- ◆ Rebecca Horn (Germany)
- ◆ Larry Bell (US)
- ◆ Olafur Eliasson (Danish)
- ◆ Robert Irwin (US)
- ◆ Ann Veronica Janssens (UK)





FACT SHEET 1: WHAT IS LIGHT ART?

THE LIGHT ARTIST'S PALETTE

The light artist uses very different materials from other artists.

Neon

If a light artist works with neon tubes, they need glass, gases and electricity. The colours of the bulbs depend on what gases are used:

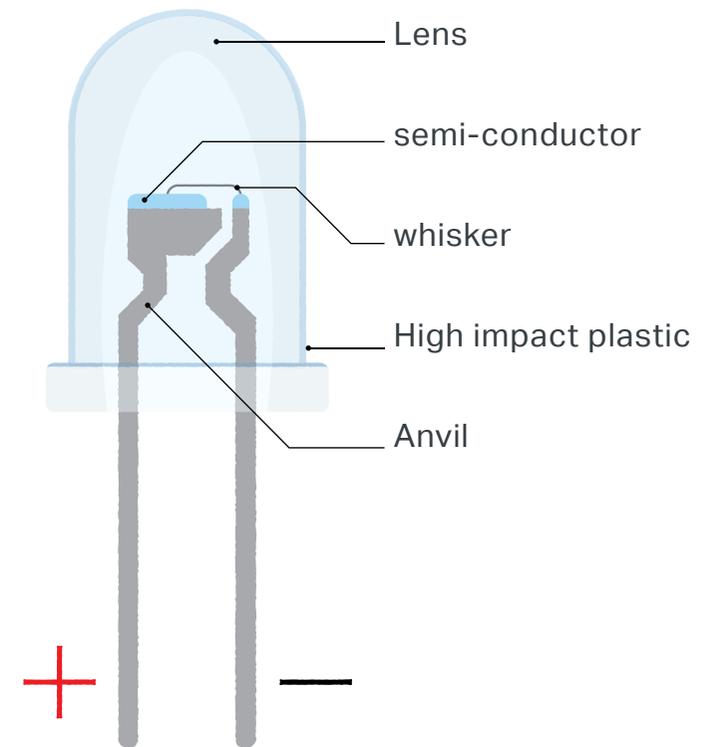
- ◆ Hydrogen will make a **red** light
- ◆ Mercury will make a **blue** light
- ◆ Neon will make an **orange** light

The neon bulb is bent into the shapes that the artist wants. Neon bulbs are quite fragile and require high voltage electricity but their colours are very impressive.

Extension:

LEDs

Unlike neon, LEDs (Light-emitting Diodes) are not expensive and because of this they are often used to create temporary installations. LEDs do not use much energy making them more environmentally friendly than neon lighting. An RGB LED can emit three colours (red, blue and green) but if they are carefully controlled they may produce up to 7 colours.





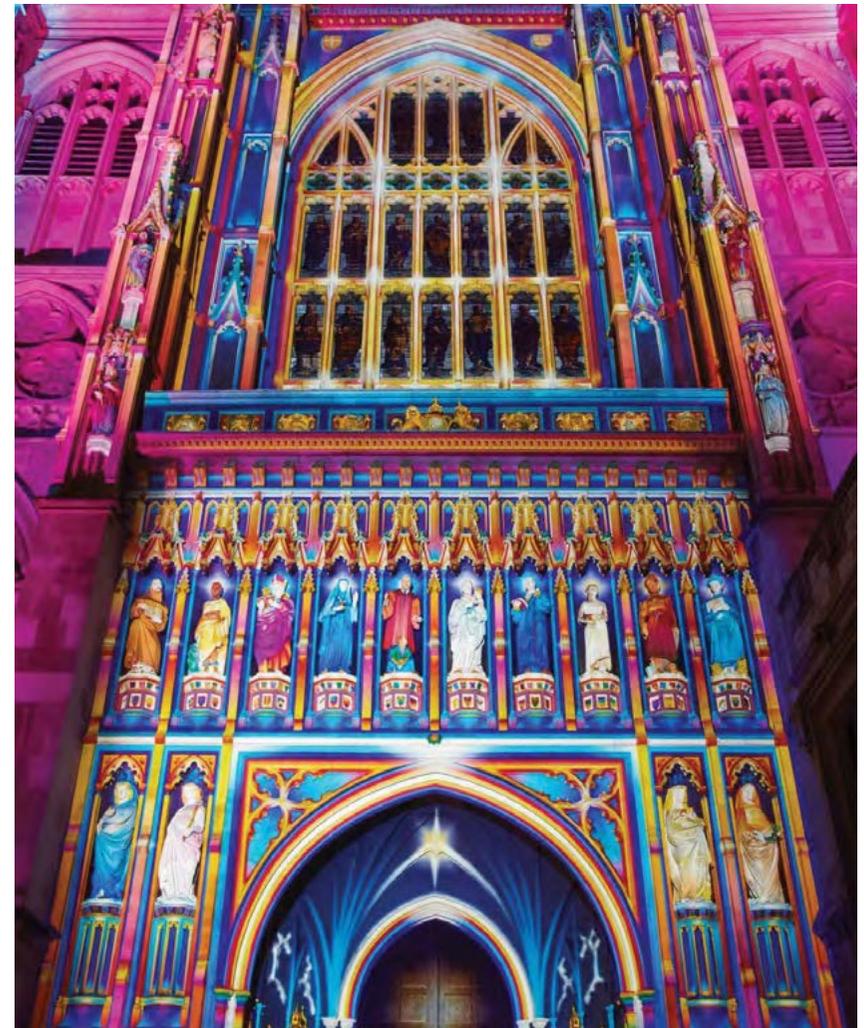
FACT SHEET 1: WHAT IS LIGHT ART?

Projections

Projectors, like ones that you have in the classroom, can be used to enhance walls and buildings with amazing images. Artists create images using computers that act like paintings on all sorts of surfaces. Sometimes known as project painting, it is possible to fit the design or painting with the shapes on the building or surface.

The projection 'The Light of the Spirit' by Patrice Warrener (France) on the front of Westminster Abbey was achieved through Chromolitho painting, a technique that projects images and colour onto architecture and sculpture. The multicoloured effect was like the brightly painted cathedrals and churches in the Middle Ages.

www.fetedeslumieres.lyon.fr/en/artiste/patrice-warrener



THE LIGHT OF THE SPIRIT, PATRICE WARRENER (FRANCE).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London. © Matthew Andrews 2016



FACT SHEET 1: WHAT IS LIGHT ART?

LUMIERE LONDON

Lumiere London was a major new light festival that, over four evenings in January 2016, transformed many of the capital's most iconic streets and buildings in the West End and King's Cross. It brought together some of the world's most exciting artists working with light.

It featured a total of 30 large-scale video-mapped projections, interactive pieces and jaw-dropping installations which were spread out across London's city centre. Some of you might have been lucky enough to see them during the festival but, in this topic, you'll get the chance to analyse many of the beautiful pieces and even have a go at creating a piece of art with light yourself.



Images clockwise from top:

NEON DOGS, DEEPA MANN-KLER (NORTHERN IRELAND).

DRESSES, TAE GON KIM (FRANCE/KOREA).

1.8 LONDON, JANET ECHELMAN / STUDIO ECHELMAN (US).

All images: Lumiere London 2016, produced by Artichoke, supported by Mayor of London. Photograph © Matthew Andrews 2016



FACT SHEET 2: ANALYSING LIGHT ART TOGETHER

We'll look at two installations displayed at Lumiere London together in this factsheet. Then you'll get the chance to analyse some yourselves. Use Activity sheet 1: Light Art analysis mind map (page 20) to record your class analysis.

You can find an archive of all of the installations on the Lumiere website

www.lumiere-festival.com

The website also has films of many of the pieces which involved movement, so you can see how they looked during the festival.





FACT SHEET 2: ANALYSING LIGHT ART TOGETHER

KEYFRAMES

Groupe LAPS / Thomas Veysi re

This installation features stick men jumping all over Liberty House on Regent Street. It was an animated sculpture. You can see a video of another installation of Keyframes in Orleans at this website:

www.groupe-laps.org/keyframes.

This will enable you to view the movement of the piece as well as the still visual.

Analysis

- ◆ The artists used LED light for this piece of art
- ◆ At first look this piece is relatively simple, with one colour light being emitted and the characters looking very similar to each other
- ◆ Once you see the characters moving the piece comes alive and they appear to swing and jump across the building
- ◆ The lines are all the same thickness and most are straight, with some curved for the heads of the characters
- ◆ The artists wanted the characters in this piece to give energy and excitement to the building, with their dancing routine inspired by video games



KEYFRAMES, GROUPE LAPS/THOMAS VEYSSI RE (FRANCE).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.

  Matthew Andrews 2016



FACT SHEET 2: ANALYSING LIGHT ART TOGETHER

NEON DOGS

Deepa Mann-Kler

Inspired by balloon dogs at children's parties, this joyful collection of twelve neon dogs made audiences smile. Grouped together near Trafalgar Square for Lumiere London 2016, these colourful canines – complete with bones, leads and dog mess brought out the big kid inside all of us.

Analysis

- ◆ Unlike 'Keyframes' this installation primarily uses neon light. Deepa, the artist, explained why she chose neon light: "I chose glass and neon as a medium because it conveys light; because it shines at its brightest when it is darkest and because of the fragility of the glass containing the gases. Neon can be used to illuminate ideas, feelings, memories and emotions"
- ◆ This piece is very colourful, the different colours make it particularly eye-catching
- ◆ Although there is no movement involved in this piece, the way that the dogs are positioned means that you can imagine them jumping around and being playful
- ◆ The lines are very curved in this piece to show the outline of each dog, all are the same thickness



NEON DOGS, DEEPA MANN-KLER (NORTHERN IRELAND).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016



ACTIVITY SHEET 1: LIGHT ART ANALYSIS MIND MAP

This resource will support you with analysing the piece of light art that you'll study together in your Discover lesson. Use the mind map below to analyse and respond to the pieces you study.



Name: _____

Date: _____



ACTIVITY SHEET 2: IMAGES OF LUMIERE LONDON INSTALLATIONS



GARDEN OF LIGHT, TILT (FRANCE).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016



LIGHTBENCH, BERND SPIECKER FOR LBO-LICHTBANKOBJEKTE (GERMANY).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
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ACTIVITY SHEET 2: IMAGES OF LUMIERE LONDON INSTALLATIONS



1.8 LONDON, JANET ECHELMAN / STUDIO ECHELMAN (US).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016



LES VOYAGEURS, CÉDRIC LE BORGNE (FRANCE).

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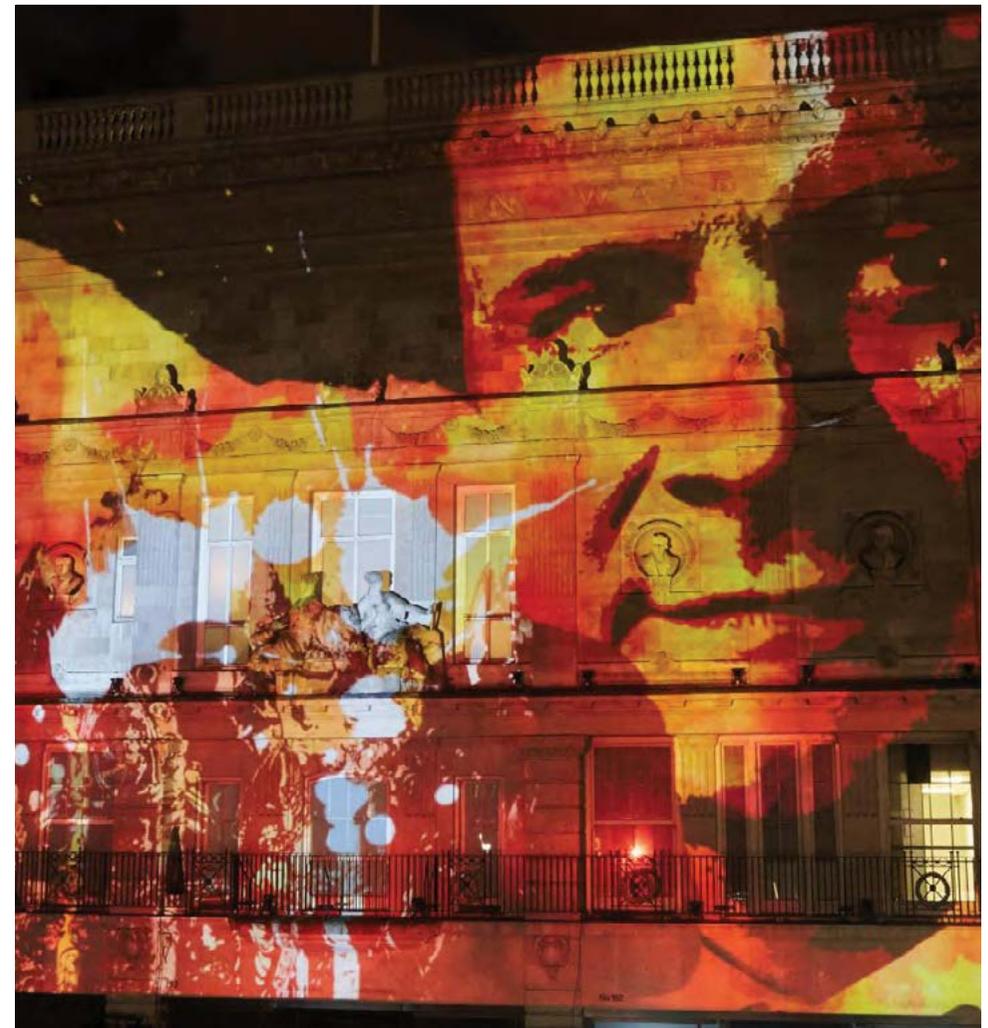


ACTIVITY SHEET 2: IMAGES OF LUMIERE LONDON INSTALLATIONS



DRESSES, TAE GON KIM (FRANCE/KOREA).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016

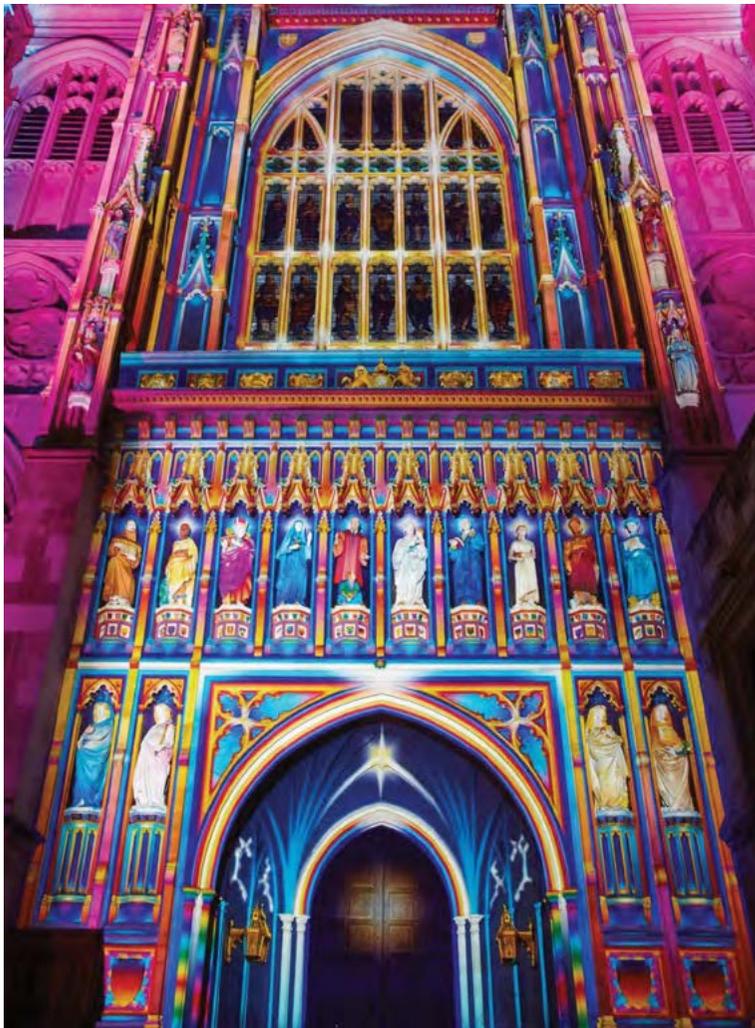


195 PICCADILLY, NOVAK (UK).

Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016



ACTIVITY SHEET 2: IMAGES OF LUMIERE LONDON INSTALLATIONS



THE LIGHT OF THE SPIRIT, PATRICE WARRENER (FRANCE).
Lumiere London 2016, produced by Artichoke, supported by
Mayor of London. © Matthew Andrews 2016

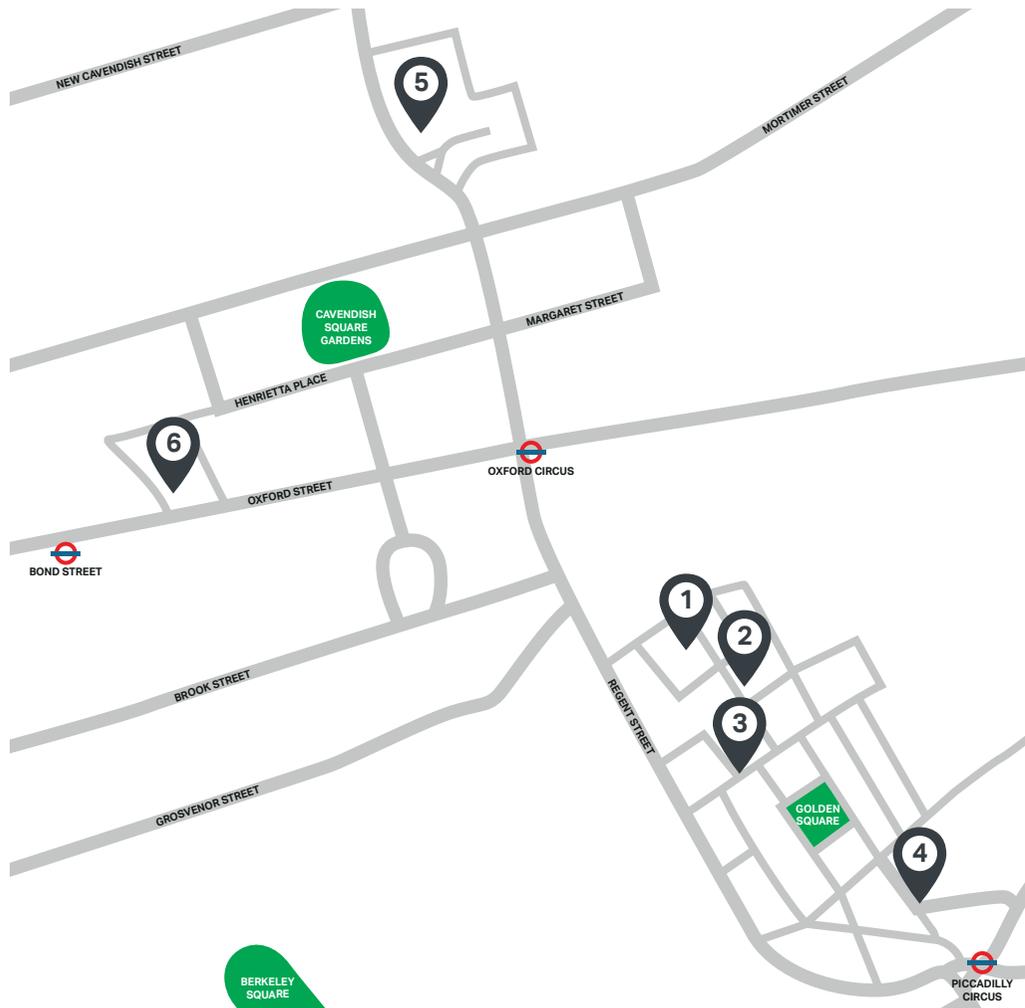


ELEPHANTASTIC. CATHERINE GARRET (FRANCE),
Lumiere London 2016, produced by Artichoke, supported by Mayor of London.
© Matthew Andrews 2016



ACTIVITY SHEET 3: WALKING TOUR MAPS

WALKING TOUR 1: GANTON STREET TO OXFORD STREET



1

GANTON ST



Carnaby Street
hanging light bulb
installation.

2

GANTON ST



The large light
switch and plug on
the corner.

1 minute walk

3

KINGLY COURT



Shaida Walking by
Julian Opie,
corner of Carnaby
Street/Broadwick
Street.

4 minute walk

4

SHERWOOD ST



Vital Signs
Brewer Street

14 minute walk

5

REGENT ST



The light sculpture
on top of the BBC
building.

9 minute walk

6

OXFORD ST

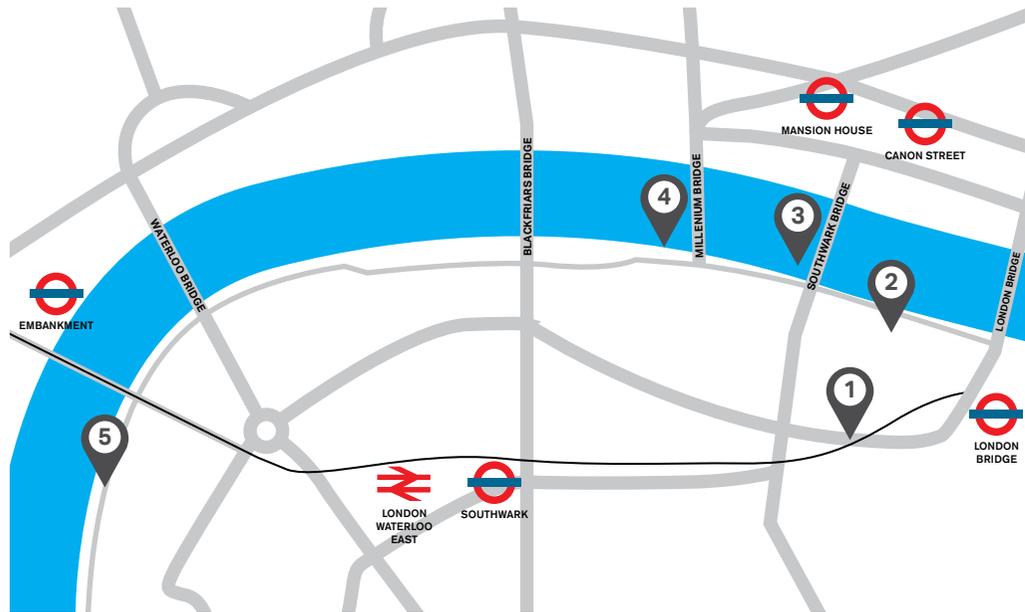


The shimmering
façade of
Debenhams.



ACTIVITY SHEET 3: WALKING TOUR MAPS

WALKING TOUR 2: SOUTHWARK STREET TO LONDON EYE



1

SOUTHWARK ST



Light art sculpture.
8 minute walk

2

CLINK ST



Clink Street Tunnel.
4 minute walk

3

SOUTHWARK BRIDGE



Southwark Bridge
on Southwark
Bridge Road.
5 minute walk

4

MILLENNIUM BRIDGE



Bankside Road.
25 minute walk

5

LONDON EYE



The Queen's Walk.



ACTIVITY SHEET 3: WALKING TOUR MAPS

Photo credits

Walking tour 1

1. Carnaby Street hanging light bulb installation
Architect: James Glancey Design
© www.carnaby.co.uk
2. *Plug and Socket*, Ganton Street
Architect: James Glancey Design
© Wikipedia
3. *Shaída Walking*
Design: Julian Opie. Architect: Artichoke. Lumiere London 2016.
© www.butterflyartnews.com
4. *Vital Signs*, Sherwood street (Brewer Street)
Architect: Spencer Finch
© Spencer Finch
5. The blue lit façade of Broadcasting House at night
Architect: Val Myer
© BBC
6. The shimmering façade of Debenhams on Oxford Street
Design: Adrian V Montagu and Partners
© Evening Standard

Walking tour 2

1. The light art sculpture on Southwark Street
© Getty Images
2. Clink Street Bridge Tunnel
© Redshift Photography
3. Southwark Bridge at night
© Rolandas Genčas
4. Millenium Bridge at night, River Thames
Architect: Norman Foster, Lighting Designer: Halo Lighting
© www.rsvlts.com
5. The London Eye, River Thames
Architects: Frank Anatole, Nic Bailey, Steve Chilton, Malcolm Cook,
Mark Sparrowhawk, Julia Barfield and David Marks.
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