

AN  
**ARTICHÖKE**  
PROJECT

COMMISSIONED BY  
**Durham**  
County Council

Regional Development Funding by  
**ARTS COUNCIL**  
ENGLAND

# LUMIERE

## RESOURCE PACK – PRIMARY SCHOOL EDITION

Produced in association with



This resource is kindly supported by:



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## INTRODUCTION

### From Helen Marriage, Artistic Director, Artichoke

Commissioned by Durham County Council, Artichoke has produced *Lumiere* in Durham every other year since 2009. Now in its 10<sup>th</sup> year, *Lumiere* has become a highlight of the North East calendar, bringing joy and light to people from County Durham and beyond during the dark, winter months.

We want to ensure that the impact of *Lumiere* is felt beyond the duration of the festival and that diverse communities from across the County can get involved. That is why it is so important for us to reach out to you in order to give as many primary school children in County Durham the opportunity to experience *Lumiere* in the classroom.

With this resource, we hope to bring the magic of *Lumiere* to all primary schools in County Durham. The pack will be made permanently available online for free, leaving a lasting legacy for this very special, 10<sup>th</sup> anniversary edition of the festival.

I hope that your pupils enjoy the activities in this pack and feel inspired to visit the festival in November.

### From Michelle Cooper, Chief Executive, County Durham Community Foundation

County Durham Community Foundation is proud to support *Lumiere*. As a grant-making charity focused on supporting people in County Durham, we are dedicated to backing projects that have incredible impact in our communities and make a genuine difference to the lives of local people. The projects we support very often harness the unique power of art and culture to bring together people of all ages and backgrounds. So it seemed only natural to support this latest *Lumiere* project.

With this resource, we hope to bring the magic of art and culture in the form of *Lumiere* into the classroom and make sure the festival is enjoyed yearround. Helping County Durham's young people achieve their potential and fulfil their aspirations is at the heart of what we do. We are happy to be working with the *Lumiere* team to inspire young people to explore their creativity and learn new skills.

We hope your pupils will enjoy this resource and we hope to see you at the festival!

**Please help us make a difference in the local community by visiting [cdcf.org.uk](https://cdcf.org.uk) and supporting us. Every donation will help us to provide life-changing grants.**

## HOW TO USE THIS RESOURCE

This resource will support and inspire you to build an exciting art project around the 10<sup>th</sup> anniversary edition of *Lumiere*.

The activity parts of this pack are written in child-friendly language to aid session planning. It is primarily designed for Years 5–8 in England and Wales, Years 6–9 in Northern Ireland and P6-S2 in Scotland, but they're easily adaptable for lower and upper age ranges.

Although the main focus of this resource is art, and in particular light art, you don't need to be an art expert or a brilliant artist. You just need to give yourself a bit of time to look through this pack, try out some of the activities and adapt what you find to suit your pupils.

*Lumiere* is the UK's largest light festival, and has taken place in Durham every two years since 2009. Completely free to attend, the festival works with local, national and international artists to produce dazzling, world-class light art installations. Using different buildings and spaces around the city, *Lumiere* invites audiences to look at their surrounds in a different light, and in 2017, the festival attracted over 240,000 people.

This year, the festival runs **14<sup>th</sup> – 17<sup>th</sup> November 2019**.

**Don't worry if you can't attend *Lumiere* with your pupils. This resource is designed to be used standalone, and includes links to images and films from previous festival programmes. You can use this resource at any time, not just when the festival is happening.**

We look forward to seeing what you create!

# ART FOCUS PROJECTS



The four Art Focus projects have links to STEM, literacy, recycling, art and design, communication skills and activities that encourage teamwork and collaboration.

The four Art Focus projects are:

- ▶ **1 The Universe in a Teacup**  
(STEM, fine and gross motor skills, teamwork and communication)
- ▶ **2 Making Something Extraordinary**  
(STEM, drawing, 3D construction, planning, literacy)
- ▶ **3 Art, Colours and Words**  
(emotional literacy, speaking and listening, teamwork, colours)
- ▶ **4 Art from Everyday Things**  
(Recycling, citizenship, 3D sculpting, communication skills)

Again, it's up to you how you use these projects and how long you choose to spend on the different activities. You might work through all four or pick one for your class or year group.

The Art Focus projects are each broken down into three sections:

## LOOK. TALK. THINK.

A chance for pupils to explore a particular artwork using images and videos. It includes a range of questions and tasks to encourage them to start looking, talking and thinking.

## DISCOVER. TRY. EXPLORE.

Gives information about the artist and how the artwork was made. It may also lead into an activity that allows pupils to try out an artmaking technique. This exploratory activity can be a standalone session, or it can lead into further artmaking in the CREATE. MAKE. SHARE section below.

## CREATE. MAKE. SHARE.

Encourages pupils to make their own art inspired by the light art they have been looking at. This includes clear resource lists and instructions.

This section can lead into an extension activity called 'Transforming a Space', where teachers and pupils can work towards creating your own light installation!



Please share your outcomes with the *Lumiere* team. We would love to see the pictures of your work: [participation@artichoke.uk.com](mailto:participation@artichoke.uk.com) and use the hashtag **#LumiereDurham** on social media.

# GLOSSARY

## Collaborative

Involving two or more people working together for a special purpose. For example, we can all collaborate to make a big artwork.

## Marbling

Using ink and water to create a colourful effect in paper that resembles the streaks of colour you would find in a material such as marble stone.

## Architecture

The art or practice of designing and constructing buildings.

## Installation (art)

An artistic genre of 3D works that are often site-specific and designed to transform the perception of a space. Installations are often artworks that you can walk into, such as a room or an environment for example.

## Micro and Macro

### Micro

Very small in comparison with others of its kind.

### Macro

Large or on a large scale, so it's the opposite of micro. For example, a single blade of grass would be the micro, the detail. The whole field of grass would be the macro, ie. the large thing made of all the small things.

## Cosmology

Cosmology is the study of outer space or the Universe. It seeks to explain how the Universe came to be, what its structure is like, and what the future may hold for it.

## Data

Facts and statistics collected together for reference or analysis. You could collect data about who eats what for lunch and put that data in a bar chart.

## Interactive art

Artworks that encourage the audience to take part in, play with or touch the artwork.

## Transform

To completely change the appearance or character of something or someone. For example, 'our classroom was transformed when it was painted pink. All the chairs were replaced with beanbags and a swimming pool was put in the middle!'

CREATE. MAKE. SHARE.

LOOK. TALK. THINK.

DISCOVER. TRY. EXPLORE.

## INTRODUCTORY SESSION

### What is art? Where might we find it, and what is 'light art'?

You might recognise a painting or a drawing as an artwork, but what about other types of art?

For the following activities you will need to use the 'Exploring Art' images, which are included at the back of this resource. These activities have been created to open up discussions about what artworks are, what they might mean, how they make us feel, how we might categorise them, and how we all respond to artworks differently.

You don't need to know about the artists who made them, or why they have been made. In fact, for now, it's better just to look, talk and explore.



*White Line*, Adam Frelin, *Lumiere* Durham 2017. Produced by Artichoke. Photo by Matthew Andrews

## ACTIVITY 1: Exploring different types of art

### Resources

One set of the 'Exploring Art' images per table of pupils (Worksheets at the end of this pack). Before the session, print in full colour and cut out a set of images.

You can also choose your own artwork images for this exercise if you prefer.

### Instructions

Ask pupils to spread all the images out on their tables.

Then, ask pupils to arrange the images into long lines. The lines will be arranged according to a few different categories. For example, if you asked pupils to arrange their line in 'dark to light' they would have the darkest image at one end of their line and the lightest image at the other.

The following categories should result in pupils making long lines of images:

- ▶ Small to large
- ▶ Dark to light
- ▶ Fast to slow
- ▶ Happy to sad
- ▶ Hard to make to easy to make
- ▶ Simple to complicated

Use these categories to get pupils looking, talking and exploring.

Ask your pupils to pick an image that interests them.

### Questions for discussion.

Can you describe this image?

Why does it interest you?

How do you think it was made?

## ACTIVITY 2: What is light art and where might we find it?

### Resources

The same set of 'Exploring Art' images or your own images.

### Instructions

Ask pupils to spread all the images out on their tables.

Then, ask pupils to group images according to the following categories:

- ▶ In a gallery ▶ Outside of a gallery
- ▶ On a wall ▶ On the ground
- ▶ Up in the air ▶ On a building
- ▶ Lights up ▶ Does not light up
- ▶ Made of light ▶ Not made of light

Using the images, see if pupils can pick out the ones they think might be a light installation.

What do they think a light installation is?

Using the *Lumiere* archive website, show your pupils images of other light installations that have been part of the festival programme in the past.

[lumiere-festival.com/archive-home/](http://lumiere-festival.com/archive-home/)

Encourage pupils to work with you to find a list of words that help them describe what light art is.

Some example words or phrases might be:

- ▶ Exciting
- ▶ Bright
- ▶ It lights up
- ▶ It's outside
- ▶ Magical
- ▶ You can see it at night time
- ▶ It transforms a space
- ▶ It can change colour
- ▶ It can be on the side of a building
- ▶ It uses technology
- ▶ It's interesting
- ▶ It's interactive

### Questions for discussion

What makes something a piece of art?

Do you have to go to an art gallery to see art?



## EXPLORING LUMIERE

### What is Lumiere?

*Lumiere* is organised by a charity called Artichoke, and for each festival the people at Artichoke work with over 30 different artists from all over the world. The artists are asked to light up an outside space in Durham, to encourage the audience to think, explore and see the city in a new way.

Artichoke creates extraordinary art in unusual spaces. We don't work in galleries and theatres but use outdoor spaces. We work with amazing artists to create magical and inspiring experiences that inspire people to say, 'how did they do that?!'

Since 2009, Artichoke has worked with the people of County Durham to transform their city through *Lumiere*.



*Cloud*, Caitlind r.c. Brown & Wayne Garrett, *Lumiere* Durham 2015. Produced by Artichoke. Photo by Matthew Andrews

### What is a Light Festival?

A light festival is an event that happens at night. Artists and festival organisers light up buildings, parks and unusual spaces. They encourage the audience to explore, discover and see a town, city, park or public space in a new way.

*Lumiere* transforms Durham city for four days every two years and over 240,000 people come to see the festival.

Light festivals usually take place in the winter when it gets dark earlier, so the audience has more time to explore the installations.

### Did you know?

- ▶ *Lumiere* means 'light' in French.
- ▶ Since 2009, 3 million people have come to Durham to see the festival and we have exhibited 233 installations.
- ▶ 10,000 people from community groups and schools from across County Durham have taken part in projects and been part of the installations.
- ▶ *Lumiere* is free for the audience to attend.
- ▶ You can find an archive of all of the installations on the *Lumiere* website here: [lumiere-festival.com/archive-home/](http://lumiere-festival.com/archive-home/)

### What is a Light Installation?

A light installation is a piece of art that uses light to show the audience something special or different. A painter uses paint, a sculptor uses clay and a light artist uses light.

Did you know that light artists can use light in many different ways, including using a projector just like the ones you have in school, but bigger?! These are attached to a computer, which transfers digital images onto buildings and walls.

Sometimes projections are very clever and make the audience think that the building is changing shape and colour. This is done through a method of computer programming called digital projection mapping. It maps the building, which means the artist can change how the building is seen.



*Fogscape* #03238, Fujiko Nakaya, Simon Corder, *Lumiere* Durham 2015. Produced by Artichoke. Photo by Matthew Andrews

# LUMIERE – ART & CHEMISTRY!

LUMIERE

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Did you know that some artists use chemicals and gases to make their artworks?

Neon signs are made of glass tubing, which can be bent to make words and shapes. They are called 'neons' because the tubes are filled with gas, and when the gas is connected to electricity it makes the bright colour. Most neon signs and artworks are very fragile and are handmade.

Neon is a gas and produces a red glow when electricity passes through it. Neon was discovered in 1898 by William Ramsay and Morris Travers. They named it 'neon', which is an ancient Greek name for 'new'. By 1912 neon was being used for advertisement signs.

Lots of artists create artwork from neon and *Lumiere* has featured these works in the past.

What words and shapes would you want to create out of neon and light up for everyone to see?



Neon signs and artworks don't just come in the red colour. Other gases are used to create other colours. All these gases are called 'noble gases'. For neon artworks, gas is trapped in sealed glass tubes. When electricity is passed through these gases, they glow in the following colours:

- ARGON – LIGHT BLUE
- HELIUM – PINK
- XENON – LAVENDER BLUE
- KRYPTON – YELLOW / GREEN

Neon Dogs – Deepa Mann-Kler

# LUMIERE – ART AND ENERGY!

To make our artworks light up, we need energy from electricity. Electricity is created by generators, which are powered by coal, gas, oil, water, wind and the Sun.

Generators are powered by:

- ▶ Burning fossil fuels, which are oil, coal and gas, at power stations
- ▶ Using solar power from the Sun, as in the picture below
- ▶ Using water from running water, which is called Hydropower
- ▶ Using wind from wind turbines

Which of these methods of generating electricity are renewable?

Electricity is carried to our schools, houses and places of work through wires and cables. It can also be stored in batteries (sometimes called cells).

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Look around your classroom – what can you see that uses electricity?

During the festival, we try to conserve as much energy as possible. This means that light installations are turned off overnight when the audience is not there, and we also use up-to-date technology, such as LED light bulbs. LED light bulbs convert 95% of the electrical energy into light and only 5% is wasted as heat.

Take a look back at the things that use electricity in your classroom. How could you save energy in your classroom?



There is a worksheet on the link below which explores this further:

[northernpowergrid.com/science-energy-in-the-home](http://northernpowergrid.com/science-energy-in-the-home)

Northern Power Grid is supporting *Lumiere* 2019. There are lots of other lesson plans and activities about electricity and these can be found here: [northernpowergrid.com/education](http://northernpowergrid.com/education)



# ART FOCUS 1: The Universe in a teacup

The artwork we will be looking at is called *Cosmic Architecture* by designer Nina Dunn and sound designer John Del' Nero.

## LOOK. TALK. THINK.

Show your class images and a video of *Cosmic Architecture*. Images [here](#). Video [here](#).



You can use the following questions to start conversations around the work. You could use these questions as starting points for paired talk or have teams stick a picture of the artwork in the middle of a sheet of paper and write ideas around it. You might also have pupils watch the video and note down their feelings and reactions as they watch it.

- What colours can you see?
- What shapes can you see?
- What is moving and what is still?
- What can you hear?
- How does the artwork change?
- What do the animations or moving pictures remind you of?
- How did the artists plan what was going to happen?

*Cosmic Architecture*, Nina Dunn, John Del' Nero. Produced by Artichoke for Lumiere Durham 2017. Photo by Matthew Arnold.

**DISCOVER. TRY. EXPLORE.**

The artwork we saw is by a designer called Nina Dunn, who created the shapes and pictures you can see. She worked with a sound designer called John Del'Nero, who worked with composer Isobel Waller-Bridge to create the music you can hear.

The artwork was created using computers and powerful projectors, working together to create an animated film and sound. The film was projected onto the building to create an artwork, transforming the walls into a moving, flowing structure.

This installation was made to celebrate the special achievements of the scientists and students who work inside this building, which is part of Durham University. The piece of video art also highlights the amazing way the building looks. This unusual structure was designed by a renowned architect called Daniel Libeskind.

Scientists who work inside this building specialise in Cosmology, which means the study of the Universe. Cosmology inspired the artist to use images of space in this artwork.





# Shaving foam spiral artworks

## DISCOVER. TRY. EXPLORE.

Inspired by the shapes and movement of *Cosmic Architecture*, we are going to make some artworks of our own by mixing art and science together.

With your pupils, take a look at the worksheet of telescopic images of the Universe.

- 📌 What shapes can you see?
- 📌 How many shapes can you see?
- 📌 What colours can you see?
- 📌 Are the colours real?

### Resources

- ▶ Disposable gloves for each pupil
- ▶ Plastic sheets for your tables
- ▶ Food colouring in a range of colours
- ▶ A couple of cans of cheap shaving foam
- ▶ White A4 paper, a few sheets per pupil (could be cut into circles to make a more eye-catching display)
- ▶ One lollipop stick for each pupil

### Instructions

Once you've put some plastic sheets on your tables, have pupils squirt some big blobs of shaving foam onto their table, (one large blob per pupil – about the size of a piece of A4 paper).

Wearing gloves, pupils can add a few drops of different colours of food colouring.

Use a lollipop stick to make swirly patterns in the foam.

Pupils press a sheet of paper gently onto the foam, then peel off and put to one side.

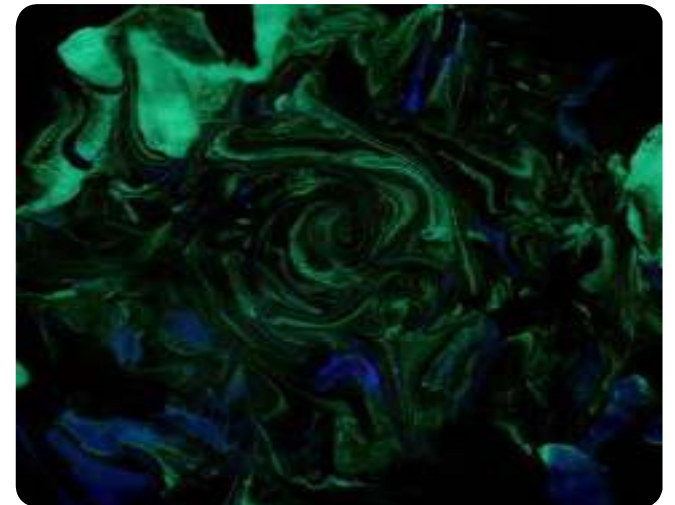
Pupils can repeat a few times using the same foam/colouring.



Once pupils have made a few prints, they can use some blue paper towel or kitchen towel to wipe off the foam from their pieces of paper to reveal their colourful spiral artworks.

Once all the artworks are dry, they can be displayed directly onto a window, letting light shine through the coloured swirls created through the marbling process.

Or, use your school photocopier to reverse the colours of the artwork, creating space-like artwork with a black background.



# The Universe in a teacup

## CREATE. MAKE. SHARE.

Now we are going to make our own artworks inspired by the shapes we saw in the Universe!

### Resources

- ▶ A4 paper
- ▶ Sharpie pens, various colours
- ▶ Clear acetate sheets cut into approximately 20cm diameter circles
- ▶ 'Micro and Macro' images Worksheets at the back of the pack

### Instructions

Put the 'micro and macro' images up on your classroom interactive board.

Work through the images, asking pupils questions about what they see and in particular, what links the images together.

Then, hand out the same images as small thumbnails, so each table has a selection of images to work from.

Some of these images are photographs taken through a microscope of very small things, and some of these images are taken through a telescope of very big things. You may notice the images are very similar!

Can you guess which image is microscopic and which image is telescopic?



Hand out the acrylic or acetate discs to pupils, as well as an A4 piece of paper. Have them draw around the discs four times, so that they end up with four circles on the paper.

Make sure there are plenty of the 'macro and micro' images on each table.

Ask the pupils to pick two images and then to copy the patterns and shapes they see, so that they fill two of the circles.

Have pupils add colour to their drawings.

In the remaining two circles, ask the pupils to design their own versions of the images. Ask them to imagine they have looked down a microscope or through a telescope. What designs can they come up with inspired by the macro and micro images?

When pupils have completed four drawings, ask them to select their favourite one and then place their plastic disc on top.

Now they can use their pens to carefully trace their designs to make their final artworks. Encourage them to use lots of colours!

# Transforming spaces

## CREATE. MAKE. SHARE.

### Resources

Using some of the following resources you can extend the previous activity and transform your classroom:

- ▶ String
- ▶ A window with lots of light coming through it
- ▶ Acetate sheets suitable for your school photocopier
- ▶ An overhead projector
- ▶ A laptop and projector
- ▶ UV Sharpie pens
- ▶ A UV torch

### Instructions

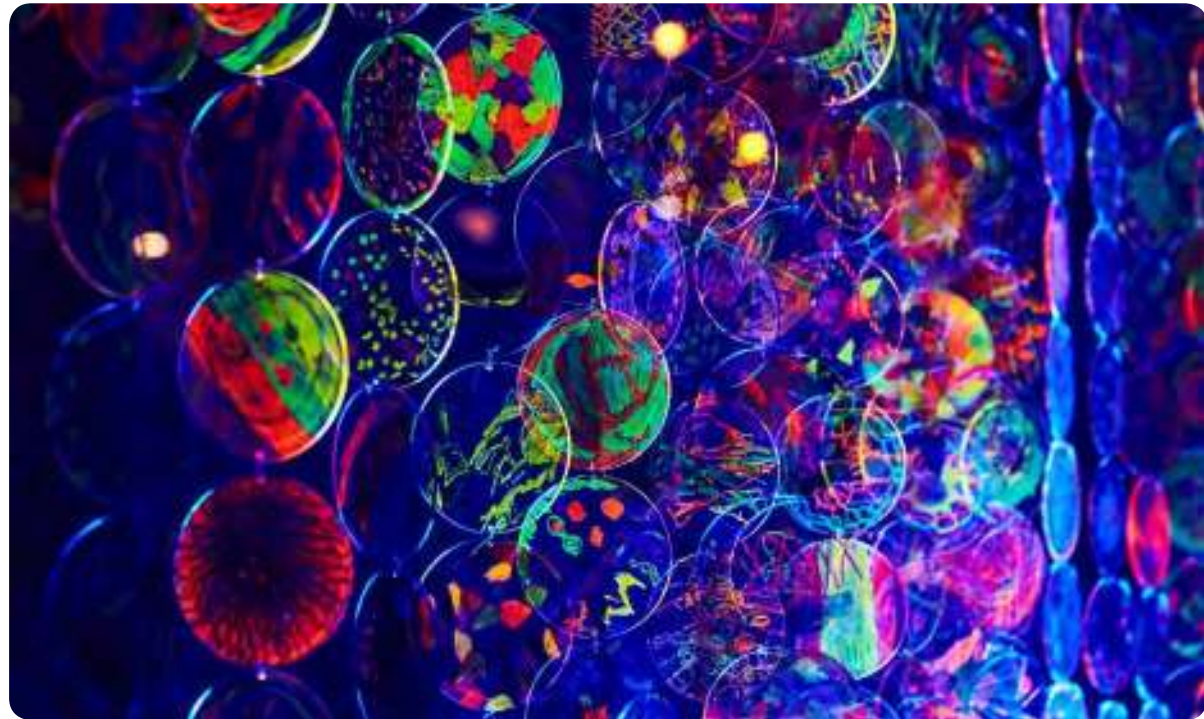
Using your pupils' circular 'Universe in a teacup' artworks you can make a range of installations or displays that will transform a space in your school.

Here are a few options:

Simply string up all of the circular disc artworks in front of a window to create colourful reflections and patterns in your classroom.

Photocopy and enlarge the artworks into acetate sheet, back with tracing paper and tape to your classroom windows.

Make giant version of the discs from acetate and ask the pupils to draw their designs bigger, then hang them in your classroom windows.



If your school has an overhead projector, use masking tape to cover the flat area where you would normally put acetate sheets, so that the only light coming through is the same size as one of the plastic discs. Black out the rest of the room and have a table of all of the disc artworks.

Ask pupils to select one of the artworks and use the projector to project its shapes and colours onto a wall of the room.

If you have a scanner, you can scan in all of the circular artworks and make a looping slideshow or PowerPoint presentation of the artworks. You will need a projector and a laptop so that you can project the slideshow onto a big wall or screen for the whole school to see.

This activity was originally developed for *Lumiere* 2017 for the *Cosmoscope* project by Durham University Science Outreach, in association with The Ogden Trust and in partnership with OASES.






# ART FOCUS 2: Making something extraordinary

We will be looking at two artworks for this activity. One is called *Spirit* and the other is called *Fire Garden*. They are both created by French artist collective, Compagnie Carabosse.

STEM  
Teamwork  
3D Construction  
Drawing  
Planning  
Literacy




## LOOK. TALK. THINK.

Show your class the images of *Miners' Vests*, which were exhibited in the Nave at Durham Cathedral. Images [here](#).

Use the following questions to start conversations around the work. You could use these questions as starting points for paired talk or have teams stick a picture of the artwork in the middle of a sheet of paper and write ideas around it. You could also talk about the work as a group.



- 🔦 What colours can you see?
- 🔦 What shapes can you see?
- 🔦 How many different pieces can you count?
- 🔦 What materials do you think the piece is made of?
- 🔦 How has it been put where it is?
- 🔦 How big is it?
- 🔦 What is it the same size as?

- 🔦 How many people do you think made it?
- 🔦 How do you think it was made?
- 🔦 If you could put this artwork anywhere, where would you put it?

*Miners' Vests, Spirit*, Carabosse. Produced by Artichoke for Lumiere Durham 2011. Photo by Matthew Arnold.

## DISCOVER. TRY. EXPLORE.

These artworks were made by a group of French artists called Compagnie Carabosse.

Painters work with paint but Carabosse work with fire. Carabosse created a piece called *Spirit*, which used scrap metal, charcoal, and even cast-off clothing to fill Durham Cathedral with candlelight. This led the audience on an illuminated trail, evoking the journeys taken by pilgrims hundreds of years ago.

Carabosse are one of France's most important street arts groups, transforming streets and parks into flickering artworks that remind us of the most basic human need for fire, warmth and company.

Carabosse have performed and exhibited all over the world, delighting thousands of visitors from Edinburgh to Brighton with installations that inspire awe and reverence in equal measure.

*Spirit*, Carabosse. Produced by Artichoke for Lumiere Durham 2011. Photo by Matthew Arnold.

# Make your own storyboard

## CREATE. MAKE. SHARE.

### How do you think this artwork was made?

Ask your pupils to plan out how they would construct this artwork by creating a storyboard.

### Resources

- ▶ Storyboard worksheets at the end of this pack
- ▶ A few images of the artwork printed out
- ▶ Pencils and felt tips

### Instructions

Hand out the storyboard worksheets to pupils. Ask the pupils a couple of questions about how they think the artwork was made:

- 🔦 What has to happen first?
- 🔦 Did someone draw a picture and plan it all out?
- 🔦 Where did the objects in the artwork come from?
- 🔦 What machines or tools would you need?
- 🔦 How did they get the artwork to light up?
- 🔦 How many people would you need to help you?

Once you have discussed some ideas, demonstrate adding some of the steps into the storyboard worksheet. Draw pictures and write down what is happening in the caption boxes.

Before pupils start working on their own storyboards, remind them that they might all imagine different ways to make the artwork, and that this is fine. There is no right or wrong answer, it is about exploring their ideas and thinking through how they would make this happen.

🔦 As you will have discussed, it takes a lot of time and expertise to make an artwork like this. The artists work with skilled production staff and Durham Cathedral to make this possible. It takes five days to install this artwork and the project takes 18 months to plan.

### How we made this installation

The lamps are made from fabric vests which are stretched over a wire frame. Inside the frame is a candle. The vests are hung from catenary wires, (like strong washing lines!) which stretch across the Cathedral at different heights. Each evening the artists light all the candles, which burn when the festival opens. Once the audience goes home, the artists and crew have to walk around the Cathedral, putting the artwork out.

As we work with fire, we have to be careful, so this artwork has to be checked all the time to ensure that everyone is safe.



## Working together: making your own fire pots

### CREATE. MAKE. SHARE.

The image below is of *Spirit*, which was exhibited in the Cathedral cloister during *Lumiere* in 2011. The artwork is a metal structure which supports fire pots, creating an amazing 'ball of fire' effect.

For this task we are going to make our own fire pots, without using real flames!

### Resources

- ▶ Balloons blown up, enough for one per pupil
- ▶ White tissue paper cut into smaller squares (you can also use newspaper but the fire pot won't glow as brightly)
- ▶ Battery powered LED tealights, enough for one per pupil
- ▶ Watered down PVA glue (1 part glue, 2 parts water, as the glue needs to be thin enough to spread evenly)
- ▶ Paintbrushes
- ▶ Cups or bowls to stand the balloons in
- ▶ Orange, yellow and red tissue paper
- ▶ String or wool for hanging

### Instructions

- ▶ Give each pupil a blown up balloon and a cup/bowl that can support the balloon whilst you stick paper to it. Put the balloon in the cup/bowl and tie down.
- ▶ Using the glue and white paper, cover the larger end of the balloon, leaving a 15cm gap from the tie. You could draw a line around the balloon so the pupils know where to cover up to. Cover with at least 5 layers of white tissue paper (you need to make sure there is enough coverage to support the pot when the balloon is burst) and leave to dry.
- ▶ Using the orange, red and yellow tissue paper, cut out different shapes and strips of

colour. Then, add these shapes to the nearly dry balloons to look like fire. Remember to only cover where the white tissue paper is, and get creative!

- ▶ Leave to dry overnight. Once dry, burst the balloons and carefully peel away from the pots. You may need to trim off excess tissue paper from the top of the pots to neaten the edges.
- ▶ Now place an LED tealight in the pot, turn off the class lights and watch them glow!
- ▶ It's up to you how you transform your class and show off your fire pots. You could place them around the classroom, or for an amazing effect, make holes in the top and hang them. Invite other classes to come and see your work!





## ART FOCUS 3: Art, colours and words



The artwork we will be looking at is called *1:26 Durham* by Janet Echelman.

### LOOK. TALK. THINK.

Take a look at the images and video of the artwork *1:26 Durham*.  
Images [here](#). Videos [here](#).



You can use the following questions to start conversations around the work. You could use these questions as starting points for paired talk. You could use swatches of colours and ask pupils to tell you what it reminds them of, or how it makes them feel.

- 📌 What can you see?
- 📌 What colours can you see?
- 📌 What materials do you think have been used to make the artwork?
- 📌 Is it heavy or light?
- 📌 How is it being held up?
- 📌 How did they make the artwork hang over the river?
- 📌 What do you think this artwork is about?

*1:26 Durham* – Janet Echelman. Produced by Artichoke for Lumiere Durham 2015. Photo by Matthew Andrews.

**DISCOVER. TRY. EXPLORE.**

The artwork we have been looking at is called *1:26 Durham*. It is by the artist Janet Echelman. She made this artwork using netting and projected light, and it was exhibited in Durham during *Lumiere* in 2015. This artwork moved with the wind and the colours changed by people controlling it on their mobile phones.

Strong but soft, huge but delicate, this interactive sculpture is about how everyone is connected, especially in the modern world with phones and computers.

## Rose-tinted spectacles

Janet's artworks can be found in cities all over the world and she uses a wide range of technologies and materials to make her artworks come to life.

As we have discussed, Janet encourages the audience standing below to change the colours of her artwork. So, we are going to try out a colour experiment to see if different colours can affect how you feel.

Made from lightweight fibres, *1:26 Durham* is named after one of the impacts of the 2010 Chile earthquake and tsunami. Such was the strength of the vibrations from the earthquake, it momentarily sped up the Earth's rotation and shortened the day by 1.26 microseconds. Using data from NASA, Janet used the numbers to turn this amazing fact into a 3D image, the basis of which was used to create the shape of the sculpture.

### Resources

- ▶ Pupil Prompt Worksheets at end of the pack, enough for each pupil
- ▶ Glasses templates cut out, in Worksheets at the end of the pack
- ▶ A few rolls of coloured acetate (blue, yellow, red, green, purple, orange – ideally a range of colours)
- ▶ Sellotape and scissors

### Did you know?

Technicians suspended this net over the River Wear. They used a bow and arrow to connect the rope that the net hung from, from one side of the river to the other!

This artwork is an example of 'interactive art', as the audience could change and select the colours and patterns of the artwork using their mobile phones.

### Instructions

You'll need to make up the glasses before the lesson. Cut out enough templates for one per pupil. Sellotape coloured acetate to the holes where lenses would normally go. Use three or four colours, so you end up with a few pairs of red glasses, a few pairs of green, a few pairs of yellow etc.

Give out prompt worksheets and hand a pair of glasses to each pupil.

The prompt sheet will help them think about and observe what changes when they look at the world through different colours.

Ask them to consider the questions on the prompt sheet and write down their answers. Do these answers change if they try another colour?

## Colour and words

### CREATE. MAKE. SHARE.

Following on from the previous activity, using the prompt sheets that the pupils have filled out, encourage the class to talk about their experiences and if the change of colour affected what they saw or how they felt.

Extension questions

- 📌 How do the colours make you feel?
- 📌 Do different colours affect your mood?
- 📌 Is it hard to see through certain colours?

Remind them that it's ok to have different answers to each other.

Ask the pupils to choose one of the colours they have been looking through.

Ask them to list all the things they can think of that are the same colour as their chosen colour.

Ask them to start a new list and write down a memory or an event they think about when you say the colour. For example, blue might remind them of going to the seaside, or green might remind them of playing sport.

Using the words, feelings and memories they have come up with, we are going to make a poem.

This is going to be a short poem to express their feelings about a colour.

Encourage your pupils to use similes, nouns and metaphors which remind them of their chosen colour. Ask them to be creative with their words to invite the reader to think about the colour they are evoking.

Ask them to imagine what their chosen colour feels, sounds and looks like. The words they came up with in the earlier activity will help with this too.

📌 For example, if their chosen colour was red:

As red as a ruby cherry, which falls from the tree onto the grass.

Smells as sweet as cola, which fizzes on my tongue.

Red can be angry, red can be hot but red is my favourite.

It's the colour of my new shoes.



*Lightbench*, Bernd Spiecker, LBO, *Lumiere* Durham 2017. Produced by Artichoke. Photo by Matthew Andrews

## Transforming spaces

### Resources

- ▶ Large sheet of coloured acetate
- ▶ Blu-tac or tape
- ▶ Black sugar paper
- ▶ Gaffer tape

### Instructions

Can we make the whole room one colour and turn the classroom into an artwork? Work with your pupils to decide on what colour to choose.

The plan is to fill a room with one colour by totally covering one or two windows with a single colour, using acetate and blacking out all other windows.

If you can, give pupils the choice of a few rooms where you can black out all light apart from one or two windows.

You could involve pupils further by writing a class letter to the head to ask permission to transform a room, just like we have to do when we put an artwork up for *Lumiere*.

You might need some support from other staff members to transform the chosen room with colour. Sellotape your coloured acetate to one or two windows and use gaffer tape and black sugar paper to block the light from the other windows.

Pupils could invite other classes to come and experience their artwork. You might even have a whole school

# ART FOCUS 4: Art from everyday things



The artwork we will be looking at is called *Fusion*, by Mick Stephenson.

## LOOK. TALK. THINK.

Show your class images of the installation.  
Images [here](#).



Use the following questions to start conversations around the work. You might also use these questions as starting points for paired talk.

- What can you see?
- What shapes?
- What are the little bits that make up the artwork?
- What do you think the whole thing is made of?
- Where do you think the artist got all of the things this artwork is made of?
- How do you think the artist has made it light up in different colours?
- If you were going to collect materials like this, and you needed lots and lots of them, how might you start collecting them?

*Fusion*, Mick Stephenson. Produced by Artichoke for Lumiere Durham 2011. Photo by Matthew Arnold.

## DISCOVER. TRY. EXPLORE.

The artwork was made by the artist Mick Stephenson. He lives in the North East of the UK and makes colourful artworks out of recycled materials.

*Fusion* was made entirely from everyday plastic objects, usually discarded in their millions, such as bottles and plastic straws. Mick lights up these objects with LED lights. He makes beautiful artworks from rubbish!

Why might Mick want to make art from rubbish? What message is he trying to pass on to the audience?

## Did you know?

Recycling just one plastic bottle saves enough energy to power a 60W light bulb for six hours.

Nearly half of all plastic ever manufactured has been made since 2000.

There are more microplastics in the ocean than there are stars in the Milky Way.



# Transforming rubbish into art

## CREATE. MAKE. SHARE.

In the UK, 38.5 million plastic bottles are used and discarded every day and only half are recycled. This means that more than 16 million bottles are put into landfill, burnt or discarded into our oceans and environment each and every day.

This activity uses bottles that would normally be thrown away. Once you start collecting plastic bottles, it is incredible to see how many bottles you use in a small amount of time!

The activity will support your pupils to make chandeliers from plastic bottles, just like the artwork, *Bottle Festoon*, which will be exhibited as part of *Lumiere 2019*, and was created by 1000 residents from across County Durham.

*Bottle Festoon* is a unique and eco-friendly artwork of glittering, icicle-like chandeliers made from clear or green plastic bottles. Each chandelier is created by school children, community groups and families, using their plastic bottles from home.

*Bottle Festoon* creates art out of our plastic waste and draws attention to what we all do with our plastic.

### Resources

- ▶ Uncrushed plastic bottles, washed, with the labels and bottle tops removed
- ▶ Wire, either 2mm or 2.5mm works well
- ▶ Scissors
- ▶ Sharpie pens
- ▶ Safety gloves for protecting hands when cutting plastic
- ▶ Pliers



### A Note about the Bottles

To make one bottle chandelier, you will need between 30 and 50 bottles.

### What Works Best

- ▶ Green and clear bottles
- ▶ 2 litre plastic bottles work best. You can also use 1 litre and 500ml bottles too
- ▶ Washed out – make sure nothing sticky is left inside. Just rinse out with hot water and leave to dry
- ▶ Labels removed

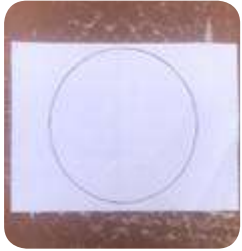
### What Doesn't Work

Smaller fruit and smoothie bottles, milk cartons, hard plastic bottles, household cleaning bottles, and bottles that haven't been washed out.

*Bottle Festoon*, by community partners across London Boroughs, Bagley Walk, King's Cross. *Lumiere* London 2018. Produced by Artichoke and commissioned by the Mayor of London. Photo by Matthew Andrews



## Making the *Bottle Festoon*



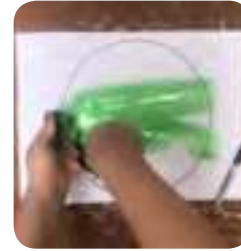
1. Draw a circle onto A3 paper roughly 28cm diameter. You can draw around an average dinner plate as a guide!



2. Cut 120cm of wire using pliers. Bend the wire to the size of the circle. This will be the frame.



3. Make a hole 2cm from the bottom of the bottle and cut it off using either sharp scissors or a scalpel. Remove the bottle cap.



4. Starting from the bottom of the bottle, cut with scissors spiralling up to the nozzle. Then, repeat the process on the other side, and repeat again in the middle of both strips. Cut the bottle into as many strips as you can; four is normally a good number.



5. Next, take the nozzle of the bottle and turn it upside down and bend the plastic strips to face downwards.



6. You can now use colourful sharpies to decorate patterns on to the plastic.



7. Add the bottles onto the wire, nozzle to nozzle. You will need a minimum of 30 bottles.



8. Once full, tie the wire together as seen in the picture above. Make sure it is secure.

### Transforming spaces

Once your chandeliers have been created you can hang them in your classroom. Why not attach them to fairy lights or hang them in front of your class window to see the light effect the artwork creates.

*Bottle Festoon* is kindly supported by:



## FINAL THOUGHTS

This resource has been designed as a flexible set of starting points that you can build into your teaching. We hope that the resource has given you a chance to share some new ideas and activities with your pupils, and introduce them to some of the artworks which we have exhibited as part of *Lumiere*.

*Lumiere* will be taking place in Durham from 14<sup>th</sup> – 17<sup>th</sup> November 2019, and now you've hopefully given your pupils a taste for exciting, experimental and immersive art, we hope that you will all visit the festival to see more.

*Lumiere* is very busy over the nights the festival is open and we understand that it can be hard to bring large groups. We therefore maintain an online archive, which provides further details about all of the artwork we have exhibited as part of *Lumiere* since 2009.

[lumiere-festival.com/archive-home/](http://lumiere-festival.com/archive-home/)



Share Images



[facebook.com/artichoketrust](https://facebook.com/artichoketrust)



@artichoketrust



@artichoketrust

We'd love to see your work. Please take photographs during your workshops, and of your artwork when it is displayed. You can share them with us by email: [participation@artichoke.uk.com](mailto:participation@artichoke.uk.com) and post them on social media using the hashtag **#LumiereDurham**.

**Thank You**



# WORKSHEETS

## Worksheet 1 – Exploring Art

1



2



3



4



5



6





# Exploring Art

7



8



9



10



11



12



## Exploring Art

13



14



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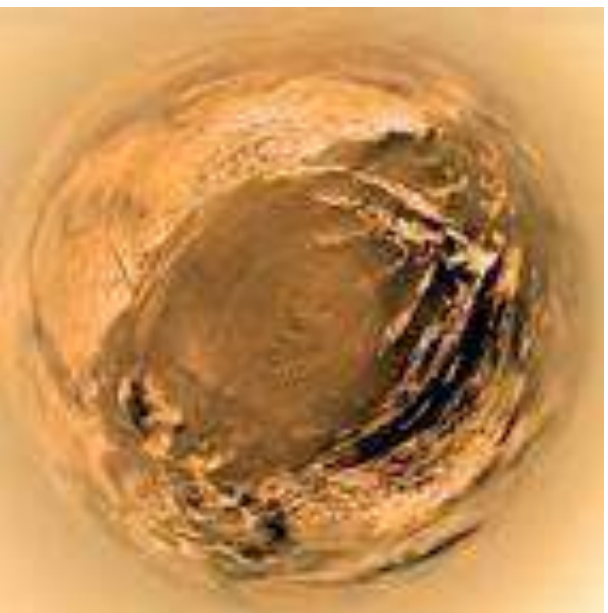
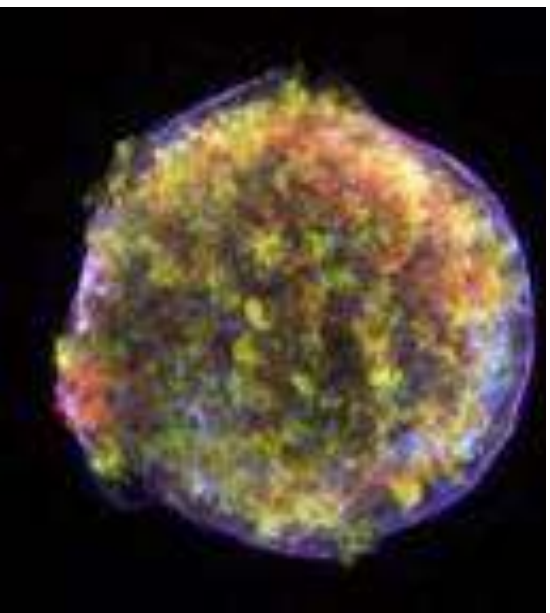


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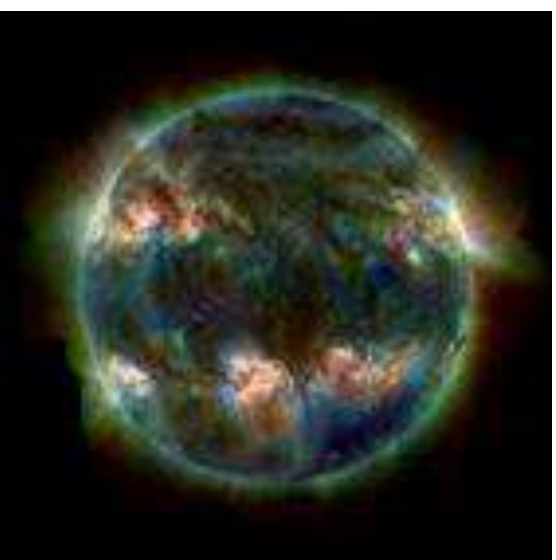
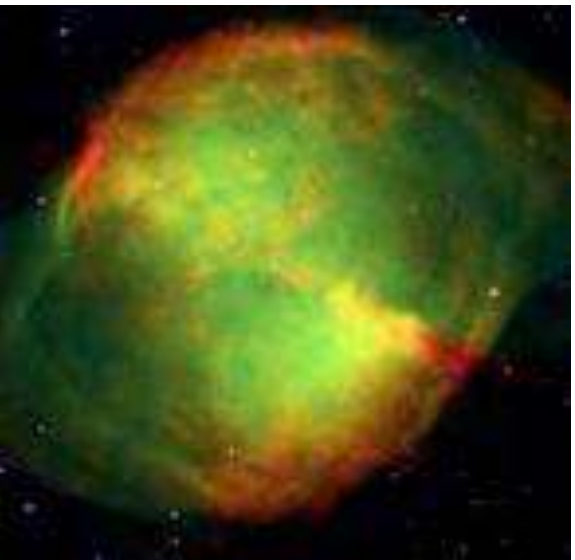
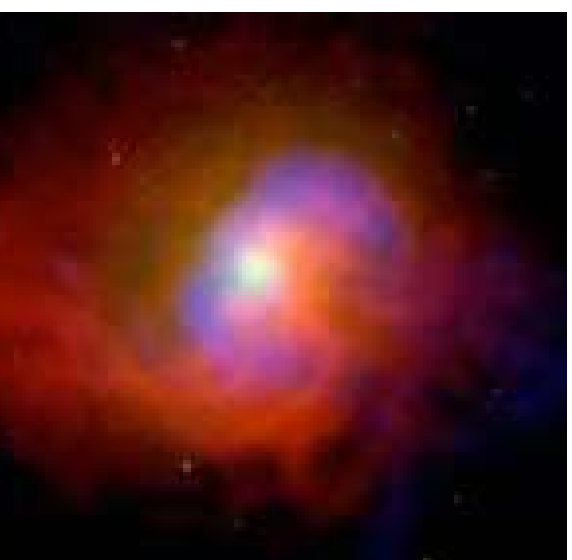
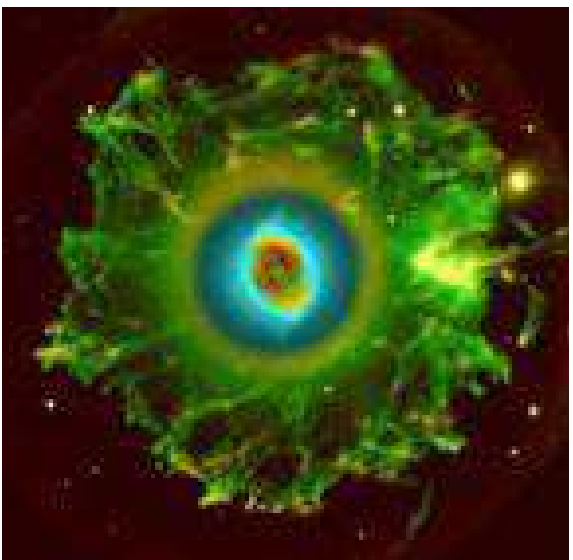
# MICRO AND MACRO IMAGES WORKSHEETS

## Telescopic Images of the Universe

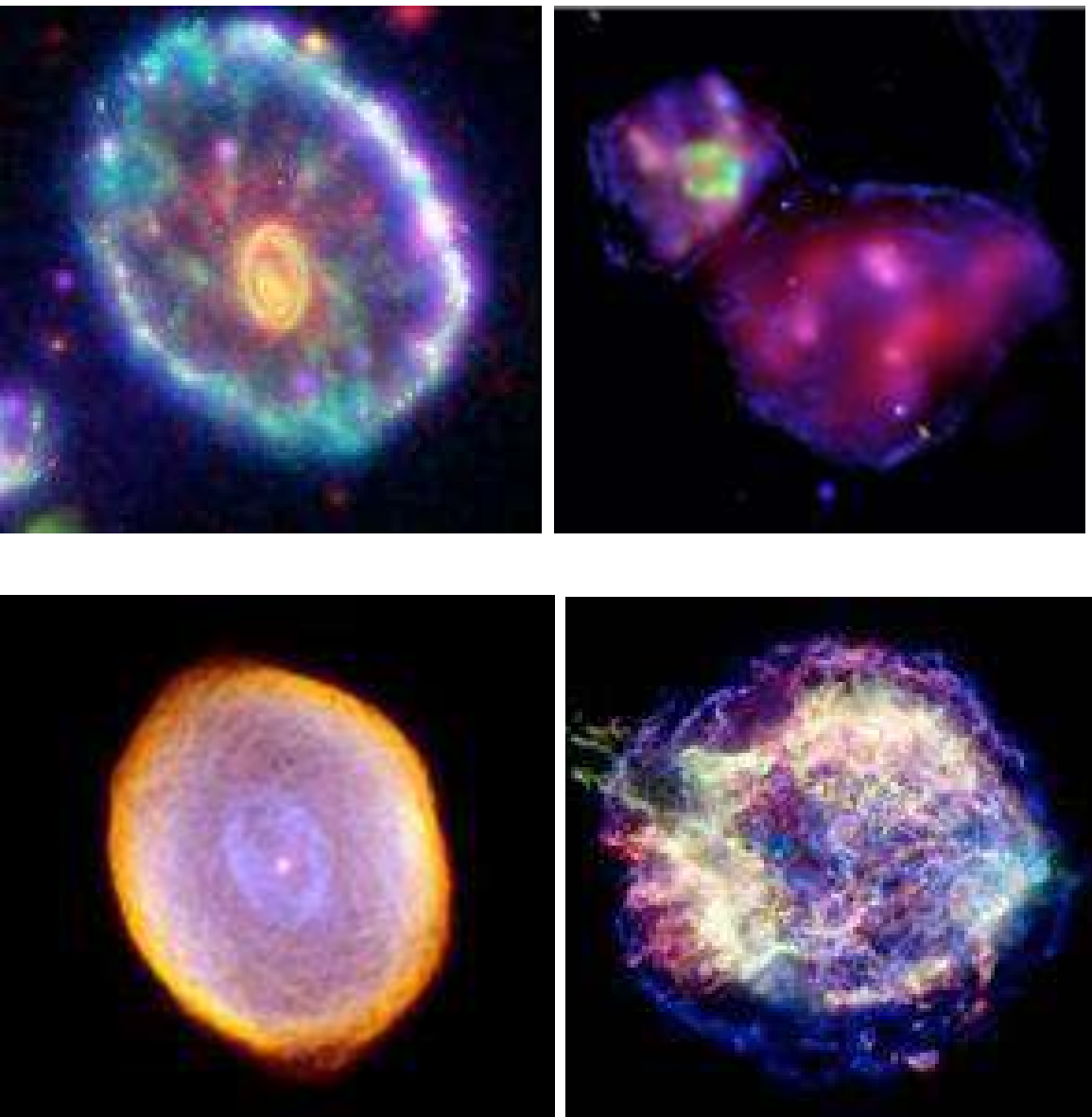




# Telescopic Images of the Universe

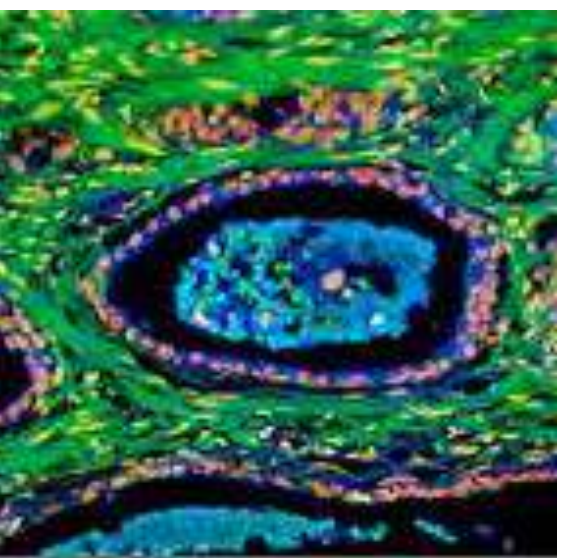
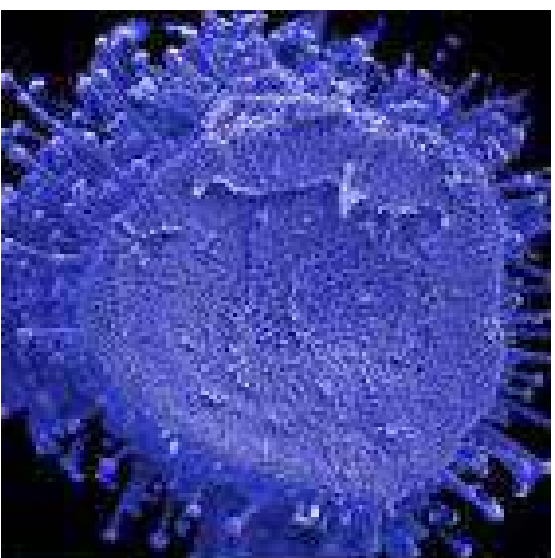
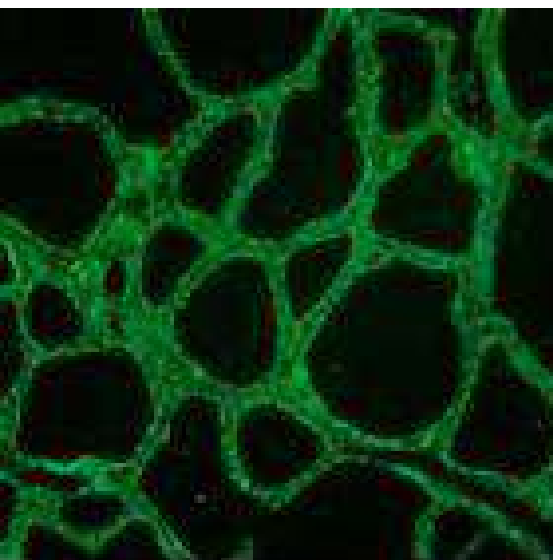
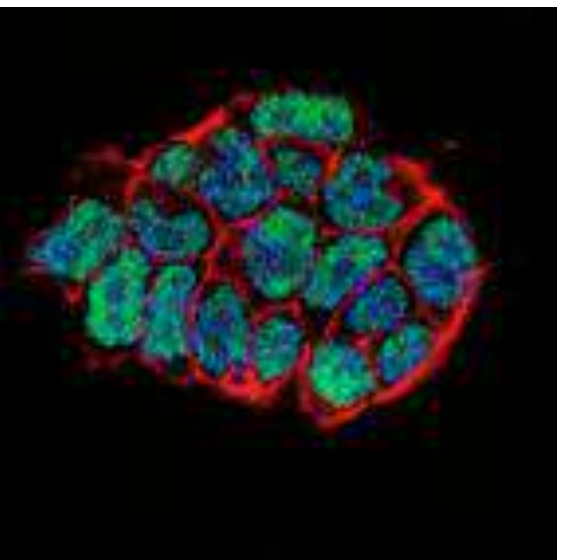


# Telescopic Images of the Universe

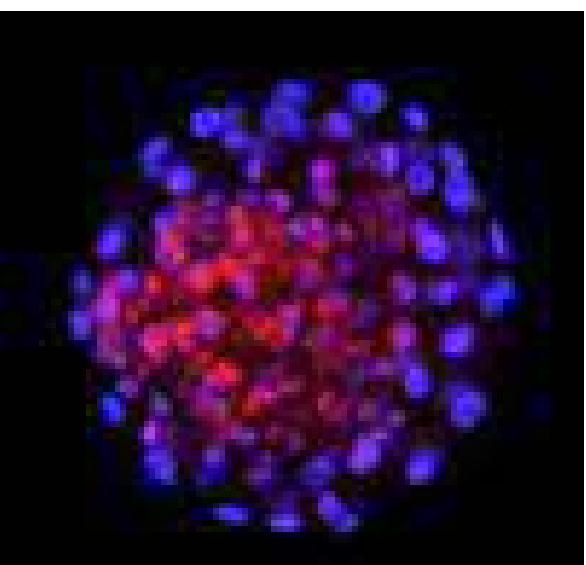
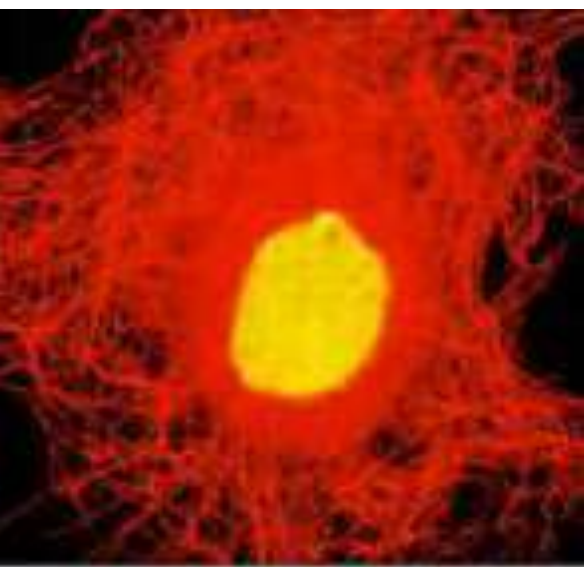




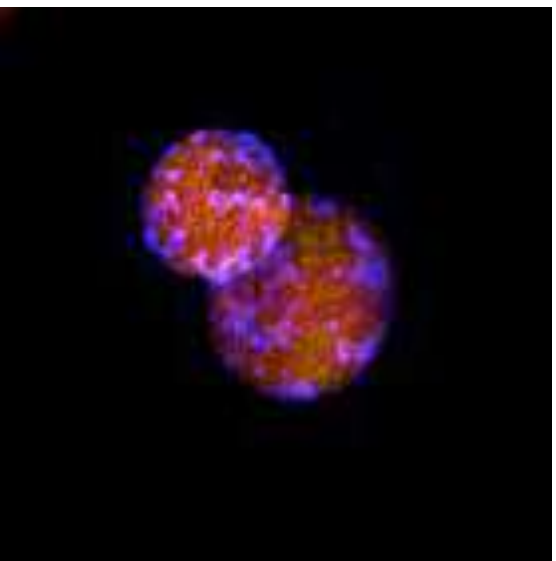
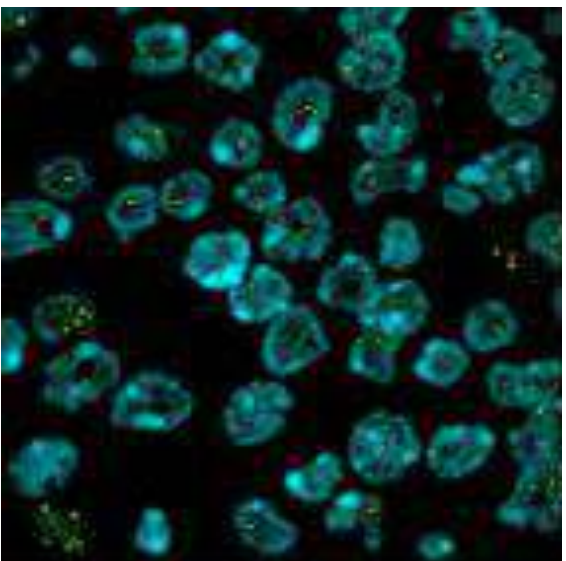
## Microscopic Images



# Microscopic Images



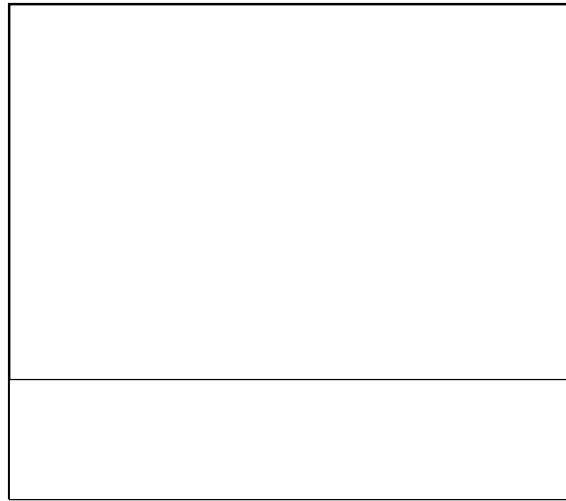
## Microscopic Images



# Storyboard Worksheet

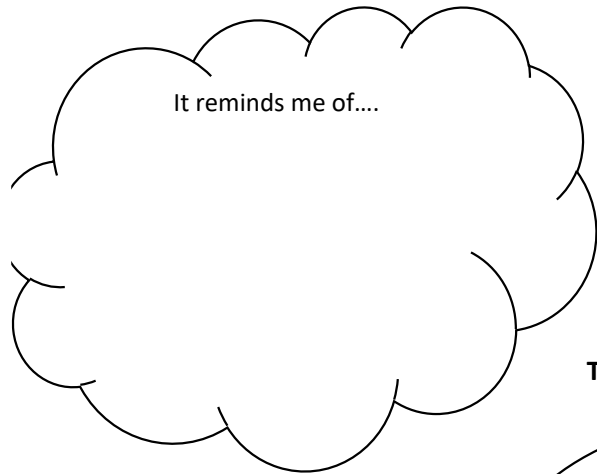
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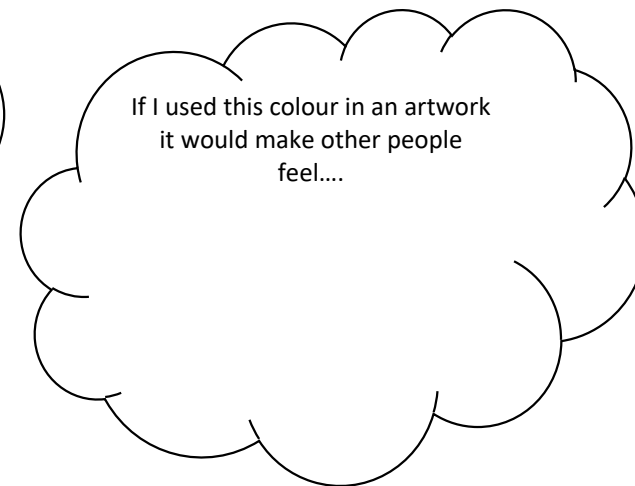


# Prompt Sheet

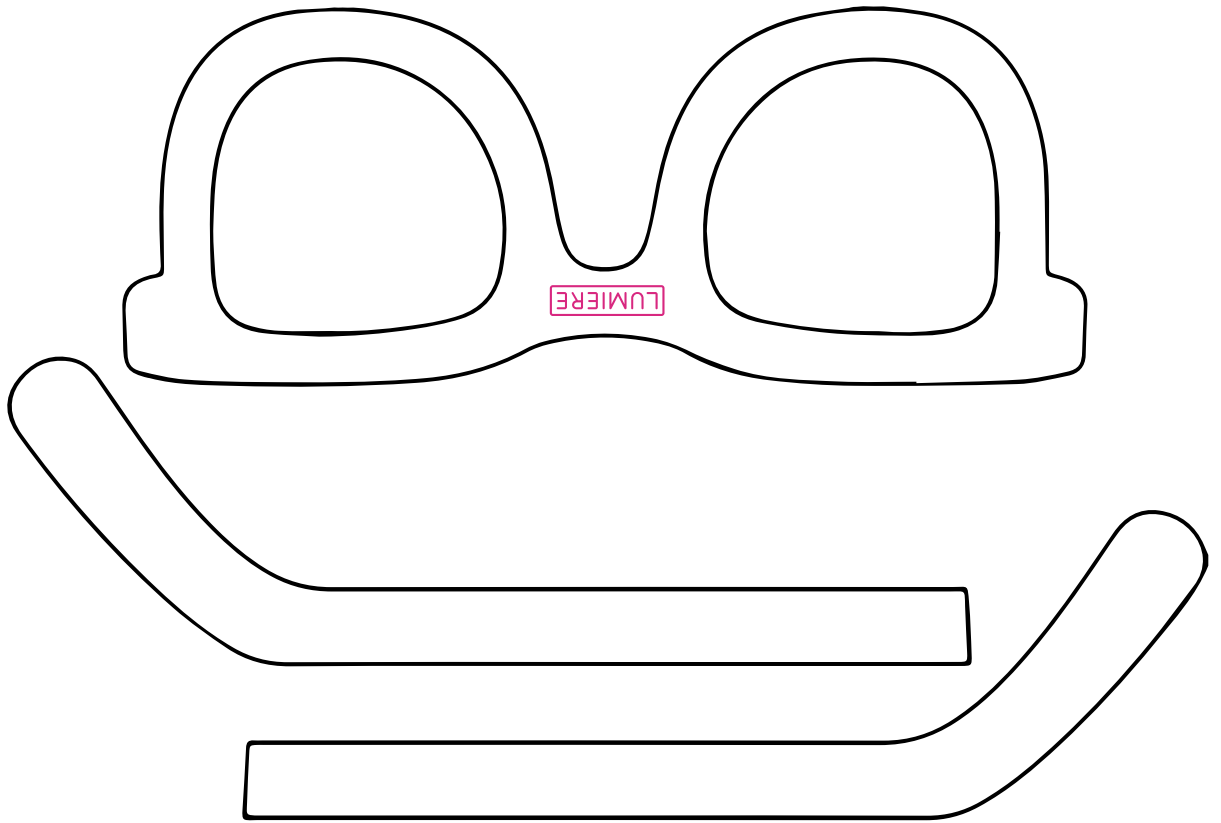
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**The colour I am looking through is**



LUMIERE



Glasses

