

DISCOVERY AWARD



UNBOXED creations

Student Pack



TEAM PROJECT

Working in teams, students are challenged to design an unforgettable experience that represents the arts and two STEM sectors.

#CREATIVITY
#INNOVATION

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UNBOXED
CREATIVITY IN THE UK

UNBOXED: Creativity in the UK



UNBOXED: Creativity in the UK was a celebration of creativity across all four nations of the UK (England, Northern Ireland, Scotland and Wales).

UNBOXED was made up of 10 projects dedicated to science, technology, engineering, arts and mathematics (STEAM), aiming to inspire new ways of thinking, creative collaborations and discovering new talent in our local communities. The 10 projects had a mixture of in-person events, broadcast and digital experiences accessible for everyone, everywhere.

UNBOXED aimed to be the biggest and most ambitious programme to happen in the UK. It celebrated and promoted collective collaboration; this means that it encouraged professionals to work with other professionals and sectors they wouldn't normally work with. It was an exploration of how creativity – our creativity – has the power to change the world – how can we shape better future for people and planet



UNBOXED: Creativity in the UK



What is an R&D process?

R&D stands for Research and Development. This is the name given to the task of gathering knowledge/carrying out research to create exciting new ideas.

Usually, an R&D process researches a new idea, but UNBOXED created a new unique process that didn't ask for an idea to start with. Instead, it asked for people to create teams with at least two people they had never worked with before. The teams had to be diverse and represent a variety of people, from freelancers and young professionals starting out on their careers, to more experienced professionals as well as people from different locations and backgrounds. The more diverse the team, the more exciting the potential!

UNBOXED's focus was to bring people together and celebrate creativity. The programme wanted to see what could be created by encouraging original collaborations between creative minds who may not ordinarily meet and work together. UNBOXED encouraged them to be bold, open, original and optimistic to create an opportunity to explore new ways of doing things.

Can you imagine what a botanist, architect and costume designer might design if they worked together? That's what UNBOXED aimed to explore!

In the UNBOXED Creations activity, you will be working in a similar way with people you may have never worked with before to create an idea that brings together science, technology, engineering, maths and art.

Overview



This project is a **celebration of creativity and collaboration in STEM (science, technology, engineering and maths) and the arts**. Creativity is useful for solving problems, communicating with others, and entertaining ourselves and others.

In this project, you will explore **awe-inspiring new ideas**, shaped across science, technology, engineering, the arts, and mathematics, and be inspired by **brilliant minds** working in **unexpected collaborations**.

You'll use what you learn (and your imagination!) to come up with an original idea that combines STEM and the arts and **create your own** unforgettable experience. The project will engage lots of people from different backgrounds and encourage them to think about a topic that might be complicated or hard to understand.

Activity	Time
Introduction	15 mins
Workshop 1: Draw a scientist	30 mins
Workshop 2: Case studies	1 hour
Project work	2 - 3 hours
Presentations	30 mins (5 mins per group)
Plenary	15 mins

Introduction

STEAM

STEAM stands for science, technology, engineering, the arts, and mathematics. The arts might refer to any visual or performing arts, such as dance, design, painting, photography, and writing.

A STEAM approach aims to **integrate STEM subjects with arts subjects**, using engineering or technology in imaginative designs **or creative approaches to real-world problems**, while building on a mathematics and science base.

Combining arts with other STEM subjects in this way helps to:

- explore problems from **different perspectives** and approaches
- highlight the vital role of creativity in both STEM and the arts
- think about STEM and the arts as **interdependent** not as totally separate subjects
- encourage **innovation**
- promote **critical thinking**
- draw on reasoning and **design principles**
- inspire **creative solutions**.

Can you think of any real-life examples where STEM skills or knowledge are used in the arts, or where the arts are important in STEM?





Discuss: what do creativity and collaboration mean?

Lots of us are both creative and collaborative every day, but what do these words really mean?

Using an A3 piece of paper write down what creativity and collaboration mean to you. There are some questions below to get you started:

Creativity:

- Does an idea have to be new to be creative?
- Is looking at things from a different angle creative?
- Does being creative need to involve solving a problem?

Collaboration:

- Does teamwork equal collaboration?
- Does everyone involved need to have an equal role?
- Why do people collaborate? What benefits does working collaboratively have?
- Would you rather collaborate with someone that has the same knowledge and skills as you, or different knowledge and skills? Why?

Workshop 1

Draw a Scientist



Growing up, you will learn and develop lots of new skills. While some jobs, like a bus driver and a dentist, are very different to each other, you will find that many of the skills needed are the same. In this activity you will explore the skills and creativity in STEM.

Instructions

1. Look at the job profiles of the different professionals involved in UNBOXED on the next two pages.
2. In the middle of your paper, draw a scientist. Be as creative as you want! Remember, all scientists look different and do different jobs.
3. Next, think about what skills your scientist needs to do their job. Write these around your drawing. Try to think of as many skills as possible.
4. Now think about an artist. What skills do they need? Put a tick by the skills you think an artist also has.
5. Hopefully you have listed creativity for both scientists and artists, as well as lots of other skills.
6. In a different coloured pen/pencil, put another tick by the skills that you have.
7. Share your pictures with the rest of the class. Are there any similarities between your drawings? Why do you think this is? Would you draw a 'scientist' differently in the future?

Class discussion

- Why is it important that people with different skills work together?
- Can you think of a time you have worked with people with different skills?

Workshop 1

Draw a Scientist

Job profiles



Name: Dev Joshi
Job title: Technical Director

What is my job? I am responsible for directing the technical development and delivery for the Dreamachine. The Dreamachine project is an immersive, magical experience of light and music exploring a colourful world unfolding behind your eyes. I work with our team and partners, to ensure seamless delivery of the project from, audience experience, ticketing, participant research and everything in between.

How is my job linked to creativity? I collaborate with specialists and the creative team to build the tools and processes which we work with to create the Dreamachine's specialist media. There's always testing, problem solving and decision making to do as well as continuing research and development tasks.



Name: Leah Gowing
Job title: Architectural Trainee

What is my job? An architect's job is to look into the fine details – making sure everything is neatly built, accessible for all, and structurally sound. For the PoliNations project (a city centre architectural forest), I spend time in the studio creating render images for marketing, social media and the website. When I'm on site, I work on floor plans, as well as getting involved in the planting, building, and decorating.

How is my job linked to creativity? My job is filled with creativity, it includes a lot of creative problem solving and thinking ahead to what issues or opportunities may arise. I have to be creative in my thinking; how can I design a building that's adaptable and shaped by the community, rather than creating a concept that is alien to its surroundings?



Name: Annabelle Ohene
Job title: Graduate Engineer

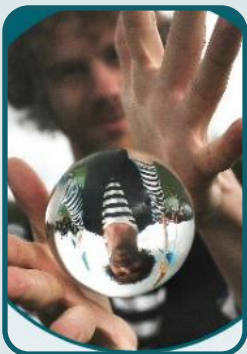
What is my job? My job is within the system architects team and I'm responsible for looking at different pieces of technology and bringing them together to create the best possible outcomes. I worked with a team to develop an innovative, geo-locating lighting system called Geolights.

How is my job linked to creativity? A huge part of my role as a graduate engineer with SIEMENS is proving how the science, technology and arts industries can complement each other. I work with people across science, technology, engineering, arts and maths and this allows me to be creative within my role.

Workshop 1

Draw a Scientist

Job profiles



Name: Luke Blakely
Job title: Educator/Performer

What is my job? In my main job, I coordinate and deliver circus workshops and creative education programmes. I also work as a street theatre performer, performing science themed circus shows where I try to get to the heart of scientific concepts and highlight the beauty and magnificence of these to the audiences.

How is my job linked to creativity? Working in the disciplines of science and creative arts allows the two to be combined. Science has always interested me but so has music, performing arts and circus arts. Every day is unique, and I have freedom when creating new material for my job to be able to share my passions to inspire and entertain.



Name: Nicole Stott
Job title: Astronaut, Aquanaut and Artist

What is my job? As an astronaut, I have had the experience to fly in space and explore the heights of outer space, as well as exploring the depths of our oceans, where I lived underwater for an extended period of time on the Aquarius undersea habitat.

How is my job linked to creativity? As an artist, I creatively combine the awe and wonder of my spaceflight experience with my artwork to inspire everyone's appreciation of our role as crewmates here on Spaceship Earth.



Name: Lucy Wheeler
Job Title: Creative Technologist

What is my job? I am responsible for understanding user experience, design aesthetics and accessibility. I provide technical guidance and advice for creative approaches in game engine software by looking at software development and user experience.

How is my job linked to creativity? A lot of the projects I work on are interdisciplinary and offer new ways to look at things. I am often part of interesting collaborations with practitioners from various fields working on a broad range of creative projects and learning about other people's creative approaches.

Workshop 2

Case studies

UNBOXED: Creativity in the UK was a celebration of creativity that consisted of 10 art, science and technology projects. The projects were created by all sorts of different organisations, but all were expected to support people who were just starting out in their careers as well as including experts from across science, technology, engineering, and the arts.

Each project was required to represent the arts, as well as two other STEAM sectors. In this workshop you will explore case studies of three of the UNBOXED projects and will investigate the following topics:

- How were arts combined with other STEM disciplines?
- Was the event unforgettable? Why, or why not?
- What important messages or themes was the project trying to encourage people to think about?



Choose two of the following case studies and either watch the short video or read through the information on the website.

Case Study 1: Our Place in Space

An astonishing journey through our solar system – recreated as an epic 8.5km sculpture trail.

- Explore the idea behind the project: vimeo.com/637402609.
- Explore the sculpture trail itself: <https://ourplaceinspace.earth/>.
- Explore the website: ourplaceinspace.earth

Our Place in Space explored the idea of perspective to make us consider how small we are in a colossal solar system. It forces us to consider how, when we zoom out to this universal perspective, we are all neighbours and crewmates on the only planet containing life in a gigantic solar system. The creation of a scale model of the solar system allows people to get a real feel for that concept of distance, size and scale.



Workshop 2

Case studies



Case Study 2: PoliNations

A magical garden of epic proportions, celebrating colour, beauty and natural diversity.

- Check out the forest: https://youtu.be/jwi2_Z1w45w.
- Learn about all the wonderful activity that took place over the three weeks: <https://www.polinations.com/whats-on>.
- Learn more about the app they create: <https://youtu.be/gqZOdVULeNQ>.
- Have a go with the app: <https://www.polinations.com/create/simple/questions>.

PoliNations explored how diverse our society is by comparing it to the vast biodiversity of the plants found in our British gardens. By creating a large-scale garden in the middle of a city centre, it encouraged people who might not traditionally spend much time in nature to explore it and think about people from other backgrounds in a new and exciting way.

Case Study 3: SEE MONSTER

A decommissioned North Sea offshore platform regenerated as a major new art installation

- Watch the SEE MONSTER drone show: youtube.com/watch?v=hDviQer9p2o.
- Check out the 360 view of SEE MONSTER: <https://seemonster.co.uk/virtual-tour/#s=pano15916>
- seemonster.co.uk.

SEE MONSTER explored the themes of re-use, regeneration, and the great British weather, by reusing a gas platform previously used to capture fossil fuels from the North Sea, and turning it into a large-scale piece of art with a full garden and renewable energy capturing technologies on board. Encouraging people to think about how we can reuse structures and buildings that have previously been used for things that damaged our planet.



Workshop 2

Case studies



Chosen case study 1:



How were arts combined with STEM topics?

How were experts involved?

What topic is the project encouraging people to think about?

How was the experience creative?

Did people work together in ways you wouldn't expect?

How did different people work together?

Workshop 2

Case studies



Chosen case study 2:



How were arts combined with STEM topics?

How were experts involved?

What topic is the project encouraging people to think about?

How was the experience creative?

Did people work together in ways you wouldn't expect?

How did different people work together?

Planning guide



Your challenge: Create your own UNBOXED Creation that celebrates innovation, collaboration and creativity in STEAM.

You will create a large-scale project that will engage lots of people from different backgrounds and encourage them to think about a topic that might be complicated or hard to understand.

Your idea **should:**

- be an **unforgettable experience**
- **draw on expertise** from STEAM
- **represent the arts**, as well as two other STEAM sectors.

Your idea **could:**

- include people who **don't normally get to be involved** in this kind of opportunity
- include people **working together** in ways you **wouldn't expect**
- celebrate your **local area**
- focus on **educating people** about a specific topic.

Team roles: Take a look at the team roles on the next page and decide who will be responsible for each role in your team. Think about the skills you discussed in the starter workshop – are any people more suitable for certain roles?



TIP!

Think about assigning roles based on the skills you'd like to practise.

Project work

Team roles



Project Manager

Makes sure the whole team and the project is on track. Keeps track of time and what needs to be done, and provides help to any team members who need extra support.

Art Director

Responsible for deciding which design elements to use e.g. photography, video, sculpture, music etc.

Design the visual style and create the overall design of the experience.

STEM Researcher #1

Research how your chosen STEM subject will be used in the event. What expertise will you need in order to make sure you achieve what you want to achieve?

STEM Researcher #2

Research how your chosen STEM subject will be used in the event. What expertise will you need in order to make sure you achieve what you want to achieve?

Event Logistics Manager

Responsible for planning the experience logistics. This might include thinking about a suitable location and site planning, timings, health & safety, ticketing or access etc. The Event Logistics Manager should create an experience map and risk assessment.

Marketing Manager

Responsible for developing a marketing plan. The Marketing Manager should look at who the target audience is, how your experience will appeal to them, and how they will find out about the experience.

Project work

Getting started



Get Started

Start by brainstorming ideas for your unforgettable 'UNBOXED Creation' experience. You might like to think about:

- **Theme, story or message:** many events or experiences aim to communicate a story or message to participants. Is there a story or message that your team are passionate about? This might be:
 - A local or global issue that you would like to draw more attention to.
 - A famous person or historical figure that you want to celebrate.
 - A new or old technology that you want to highlight.
- **Audience:** who would you like to participate in your experience? Are there any groups that might not normally attend an experience like this that you would like to reach? How will you do this? You could think about:
 - Focusing on a topic that interests that group.
 - Hosting your experience at a location they already visit regularly.
 - Using language or imagery that will appeal to that group.
- **Type of experience:** Have you been to any events, museums or other experiences that left a lasting memory? What was so special about them?
 - The nature of your experience should be suitable for your theme and audience. You might choose a concert, interactive exhibition, a ride, cinematic experience or something else entirely.
 - **Senses:** many of the UNBOXED projects played with the senses. Think about ways you might incorporate sight, sound, smell, taste or touch into your experience.



Start with the theme of your experience. What do you want visitors or participants to come away with? This might be a knowledge, awareness or a type of feeling or sentiment.

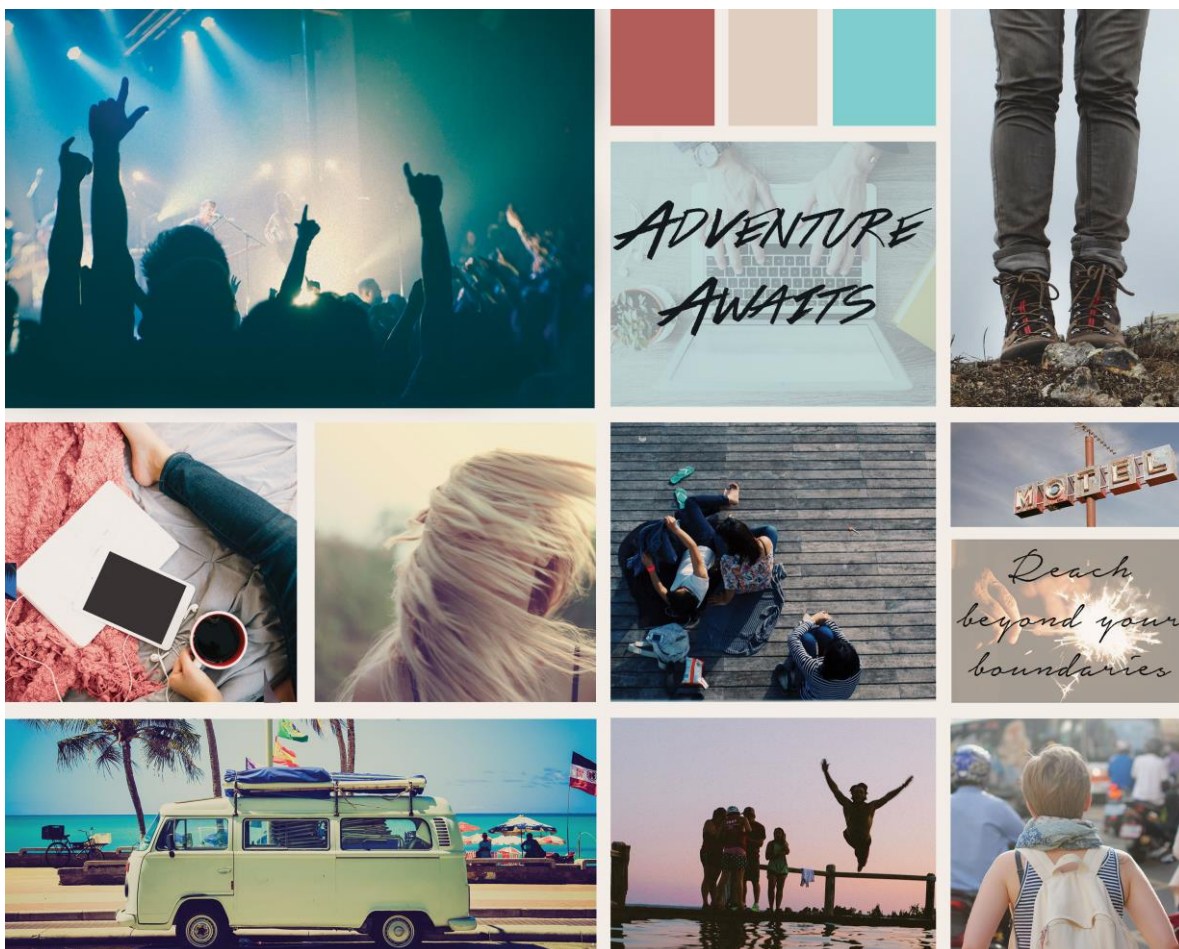
Project work Mood board



Experience Mood Board

Once you have decided on a theme for your UNBOXED Creation, create a mood board for the experience. This will help you to develop your vision as a team.

Your mood board could be physical or digital depending on what resources you have available.



Project work

Mood board



Create a mood board that expresses the theme of your UNBOXED creation experience.



Project work

Experience plan

Now you have a theme and a vision for your unforgettable experience, the next step is to create a more detailed plan which includes the logistics.

Experience overview	
Event name	
Event location <i>This could be a specific location or a type of location e.g. park, library, museum etc.</i>	
Event description <i>What will happen during the experience? What will make it unforgettable?</i>	
Objective <i>What is the message or story that you want people to come away with? E.g. do you celebrate the local area? Are you raising awareness about something? How do you want people to feel when they leave?</i>	
Duration <i>How long will the experience be? Is it a one-off event, a long-term exhibition or something else?</i>	
Audience	
Target audience <i>Those who you think are most likely to come as your experience will appeal to them.</i>	
Audience Development <i>Are there any groups who often don't attend events like this that you particularly want to come? Consider the reasons they may not typically attend, e.g. cost, travel, not able to stand for long. How will you overcome these barriers?</i>	

Project work

Experience plan

Use the template below to guide your experience planning.

Expertise	
Arts <i>How does your experience represent the arts?</i>	
STEM <i>Which two STEM sectors are represented in your experience?</i>	
<i>How are these two STEM sectors represented?</i>	
New talent <i>Are there any people involved who would not normally be? If so, who and how?</i>	
Collaboration <i>Did people have to work together in unexpected ways to create your experience? How?</i>	
Marketing	
Reach <i>Consider your audience, and what their interests are. How might you want to reach them?</i>	
Materials <i>Thinking of your answers above, what materials will you need to reach your audience? E.g a short video for social media will require an app and video editing equipment; you may need art supplies for a poster to place in a local shop.</i>	

Presentations

Imagine the head of UNBOXED has invited you to present your UNBOXED Creation idea to them in the form of a five-minute presentation.

You will need to demonstrate teamwork, presentation skills, entrepreneurship and of course creativity.

For your presentation you will need to include:

- your mood board
- your idea, and why you chose it
- who is your target audience?
- how are you combining the arts with other STEM disciplines?
- what STEM expertise are you using?
- OPTIONAL: Additional illustrations, visual aids, physical model or slides.

Good Luck!

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