

SECONDARY ACTIVITY PACK

A range of activities to be run with
students aged 11-14 (approx.)

britishscienceweek.org

Delivered by



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Welcome to the British Science Week 2026 Secondary pack

This activity pack is a **one-stop shop** to support you during British Science Week, and you can use it all year!

When developing this pack, we looked for activities which promote cross-curricular learning and break down the stereotypes surrounding science, technology, engineering, and maths (STEM). We encourage you to use British Science Week as an opportunity to link STEM to other curriculum

subjects, and to your students' own backgrounds, lives, and interests.

We have included activities for students to complete in any setting, whether that is their school, a club, an organisation, or at home with their families.

You can share your brilliant activities, vlogs, or images on social media. Join the conversation or see what's happening during the Week by tagging British Science Week on **Facebook** 🌟 and using the hashtag **#BSW26** across all social media platforms.





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This year's theme

Each year there is a new theme for British Science Week and for 2026 it's '**Curiosity: what's your question?**'

This theme is all about putting children and young people in the driver's seat, and encouraging them to find answers to the most pressing questions they have about the world.

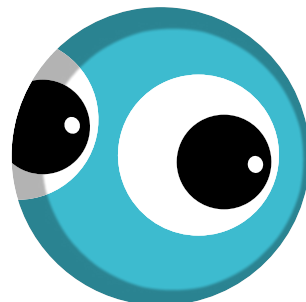
Curiosity is at the heart of STEM, driving research and innovation, and anyone can get started this year by simply asking a question. This could relate to a traditional science topic, or it might be about music, sport or architecture – any interest in fact!

Here are some ways you can introduce the theme to students in a fun, imaginative way to get them excited about the Week:

Curious about our poster competition?

This year's poster competition is a special one.

We're working with a team of scientists who are curious about what children and young people think will make a positive childhood in the future.



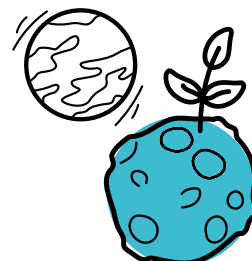
Find the full competition brief, plus details of how to enter at the back of this activity pack.

➤ Talk to students about the types of questions they might want to explore.

Do they have pets at home? Perhaps they're interested in animal behaviour. If they like to play video games, they could get curious about how they're designed.

There are lots of links between food and the climate – how eco-friendly is their favourite snack?

- If you work in a school or with a community group, invite a special guest to share their own experience of how curiosity has shaped their life. Are there any STEM professionals local to you, or museums to visit? Maybe someone working in healthcare could talk about how curiosity helps them provide the best care.



Beyond the Week



Keep the curiosity going beyond British Science Week

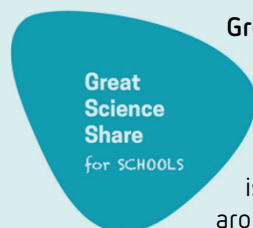


British Science Week is a fabulous opportunity to raise the profile of STEM in your school, but don't let the excitement and engagement with science end just because the Week does! There are lots of ways to keep the curiosity going, and help students continue exploring the world through STEM.




In this year's activity packs, you'll find lots of information about how to use CREST as part of your celebrations for British Science Week, and some activities inspired by CREST challenges and projects. But don't feel that this engagement needs to be limited to the Week; you can turn curiosity into achievement throughout the year with CREST.

Maybe your students have more questions they would like to answer? While the CREST Resource Library  is packed with free challenges and project ideas to inspire children and young people, did you know that you can also choose your own projects and submit them for CREST Awards? As long as students' work meets the CREST criteria at the relevant Award level, their achievements can still be recognised with a certificate to celebrate their hard work! Find out more: crestawards.org/about-crest .



Great Science Share for Schools 2026 (GSSFS)

is just around the corner! GSSFS is an annual, international campaign to inspire five to 14 year-olds to ask, investigate and share their scientific questions, with their annual share day on 16 June 2026. There are lots of exclusive resources for all age groups including guided enquiries linked to the curriculum, enrichment activities, and the Great Science Toolkit which offers resources to support pupils to 'work scientifically with increasing independence'. There is also the opportunity to help smash stereotypes in science with the Careers Chats featured in the enquiries.


GSSFS is a brilliant chance to keep the curiosity inspired by British Science Week going. Find out more: greatscienceshare.org .




Keep the curiosity going by giving students aged 10+ a chance to put their questions to real STEM professionals via 30-minute, text-based, online chats. **I'm a Scientist** is a student-led, online enrichment activity that connects



Students can also extend their curiosity beyond the Week by discovering exciting possibilities and connecting with inspiring STEM role models through the Big Bang. The Big Bang Fair is an annual national event that brings science and engineering careers to life with hands-on activities, workshops and live shows. Alternatively, young inventors and experimenters aged 11-18 can develop and shine in The Big Bang Competition, while Big Bang at School helps teachers run their own inspiring STEM days.

Find out more: thebigbang.org.uk .

Did you know you could receive extra recognition for your Big Bang Competition project by submitting for a CREST Award? Or vice-versa! The British Science Association and Engineering UK are working together to enable you to submit your project for both.

Find out more here: crestawards.org/help-centre/submitting-for-crest-awards-and-the-big-bang-competition/ .

students with people working in a diverse range of roles in STEM. It's a moderated, flexible activity, that is safe, secure and easy to use, and it's free for state-maintained schools.

Find out more: <https://imascientist.org.uk/signup/t/> .



CREST Awards

Did you know your students can **turn curiosity into achievement** and be recognised through certificates from the British Science Association?

CREST brings STEM to life for children and young people of all abilities through hands-on activities and exciting investigations.

CREST provides teachers and home educators with adaptable projects for young people that are aligned to the national curriculum (or equivalents in Scotland, Wales and Northern Ireland), and can be run throughout the year. Why not give them a go in the lead up to British Science Week?

CREST challenges and projects are practical, student-led investigations that allow children and young people to develop STEM skills, communication and teamwork, and discover how STEM is relevant to their lives.

CREST Discovery Awards are typically completed by students aged 10-14 and they can be run at both primary and secondary level. Students earn a Discovery Award by taking part in a five-hour group project. Discovery projects are perfect to run during one school day, but they can also be spread out across a week or term.



You can find a range of Discovery projects in our Resource Library: crestawards.org/resource-library/discovery ✨. All the resources are free to download and use with your students.

CREST Bronze, Silver and Gold projects allow young people to design and shape their own investigations, giving them a taste of what it's like to be a scientist or engineer. Teachers or parents/carers can submit young people's project work for a CREST Award on the students' behalf. This

requires between 10 and 70 hours of project work depending on the level. Bronze projects can be teacher-assessed, while Silver and Gold are sent to expert, external assessors. On completion, the students receive a Bronze, Silver or Gold Award, recognised with a certificate.

What impact does CREST have?

We have found that there is around a 50/50 split of boys and girls completing CREST Awards, helping to smash the stereotype of science being 'for boys', and driving towards a more representative future STEM workforce.

Three in five schools who run CREST are in challenging circumstances, and earning a CREST Award can be particularly beneficial for children from disadvantaged backgrounds.

Students eligible for free school meals who complete Silver CREST Awards see an improvement of two-thirds of a grade at GCSE science, and are 38% more likely to study STEM subjects at AS level.

Find out more in the CREST Impact Report (2021-22) ✨

What types of projects are submitted?

CREST projects can cover any STEM topic you can think of. Young people can design their own projects or they can choose an existing project to complete, running their own investigations based on an idea from our large Resource Library: crestawards.org/resource-library

Some projects from the CREST Resource Library include:

- **Machines of the future** ✨
a Discovery challenge that asks students to design a household product that uses machine learning
- **What makes bread rise?** ✨
an investigation into culinary science that students could complete for a Bronze Award
- **How strong are climbing ropes?** ✨
an investigation into the properties of climbing ropes that secondary students could complete for a Silver Award
- **Fruit juice or fizzy drinks?** ✨
challenges older students to find out which is really the healthier beverage for a Gold Award

For inspiration on how students can turn curiosity into achievement, check out some of our case studies:

- **Poppy and her research into STEM career accessibility** ✨
- **Donnie and his frisbee machine** ✨
- **A team from Wales and their AI glasses** ✨
- **Students at Rugby High School on reproductive health** ✨

Tips for educators

British Science Week can provide a perfect opportunity to bring CREST to your lessons.

Discovery projects can be easily incorporated into British Science Week. As group projects that take around five hours, they could be done in one day – a Discovery Day – or run across the Week.

Bronze, Silver and Gold projects usually cannot be completed within a week, but part of British Science Week at your school could involve students coming up with ideas for their projects and kicking them off to be worked on across the school year.

CREST projects are designed to be student-led and inclusive, allowing children and young people to explore relevant, real-life STEM challenges through practical, hands-on investigation and discussion at their level. CREST can be done by anyone! You may like to adapt or scaffold the activities, depending on the needs of your students.

Educators working with students with special educational needs and disabilities (SEND) can select the level of Award that best suits their young people. Find out more on the SEND pages of the CREST website: crestawards.org/secondary-further-education/supporting-students-send





Unlocking skills

A fantastic way to encourage young people to take an interest in STEM is to introduce transferable skills used by those working in STEM-related jobs.

These skills will strengthen positive attitudes and reduce stereotypes of those working in the field.

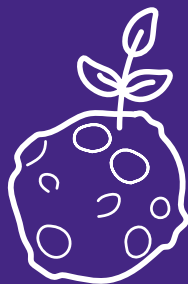
You could, for example, use the **STEM Person of the Week** ✨ activity from NUSTEM at Northumbria University (you'll find the activity in this pack on page 26) or introduce a scientist from the British Science Association's **Smashing Stereotypes** ✨ campaign. Ask students to identify what skills people working in STEM need. These might include being observant, creative, patient, good at communication, or of course, curious! Look out for the skills unlocked

tags for each activity in this pack.

The table opposite has a complete list of skills developed by NUSTEM to use as a talking point or to share with other teachers. As a little bit of motivation, why not award young people with a certificate for each STEM skill they demonstrate well during the Week? You can download and print the certificates from britishscienceweek.org/plan-your-activities/marketing-materials ✨.

| |
|--------------------|
| Observant |
| Open-minded |
| Committed |
| Curious |
| Logical |
| Creative |
| Imaginative |
| Patient |
| Self-motivated |
| Collaborative |
| Resilient |
| Clear communicator |
| Passionate |
| Hard-working |
| Organised |





HOW COULD ASTRONAUTS GROW FOOD ON MARS?

In order for a mission to Mars to be successful, the astronauts will need to be as self-sustaining as possible. This includes recycling resources and growing their own food. In this activity, you will develop a system which would allow a computer to remotely monitor the welfare of a plant, and water it automatically.

⌚ 3 hours



Kit list

Computer

Arduino

Breadboard

Circuit cables

Micro servo motor

Humidity sensor

Bottle

Blu-tack

Cable ties

Watering tube

Bucket

Potted plant



Instructions

- 1 This activity has detailed instructions found here stem.org.uk/resources/library/resource/460412/plants-mars-build-automatic-plant-watering-system 🔗
- 2 You may need to create an account to access the link.
- 3 Following the steps from the link, you will explore technology used in space through the Arduino tool. You will build an automatic watering system that measures soil humidity and waters a plant accordingly.



4 When you have finished, think about:

- How could the system be developed to be an inclusive, autonomous system capable of monitoring and keeping plants healthy in a Martian environment?
- Is there anything unique about the environment on Mars that we need to take into account?
- Are there any other concerns with a mission to Mars?

What questions do you have now?



Watch out

- Ensure you have a bucket to collect any water.
- Keep water and electronic devices at a safe distance.



Next steps

Meet Arduino! Find more Arduino activities from ESA: esamultimedia.esa.int/docs/edu/T04.1_Meet_Arduino_C.pdf 🔗



At home

Watch 'The Martian' movie to find out the unusual way Matt Damon's character, Mark Watney, grew his own food.



Career options

From astrobiologist to electrical engineer: you can explore more space careers through destinationstem.org.uk/careers/day-in-the-life 🔗



Skills unlocked

Logical, organised



SHOULD WE REINTRODUCE WOLVES INTO THE WILD?

In this activity you will use food webs, pyramids of numbers and ecosystems to consider whether wolves should be reintroduced into the Scottish Highlands and make arguments for and against.

🕒 2 hours



Kit list

Printed cards
(on next page)

(Optional) squared
paper for pyramid
of numbers activity

Students may need
access to reference
materials (on or
offline) to research
what preys on what



Instructions

A proposal has been made to reintroduce wolves into part of the Scottish Highlands, where they were native hundreds of years ago. They would serve a useful function in that they would control the negative effects of the red deer population which graze areas heavily and can strip land of vegetation.

However, wolves are versatile predators and are also capable of taking sheep and cows, so many farmers oppose this. A possible solution is to contain the wolves by electric fencing but this comes with its own risks.

Food webs

- 1 Use the cards on the next page to construct a food web showing the predator prey relationships between these organisms. You may need to research which organisms prey on which.
- 2 Use the white cards to show the relationships. There are a couple of blank cards to add other organisms.
- 3 Add the blue cards and see how they fit in.
- 4 Add the orange card and see how this fits in.
- 5 Explain what it means to say that the wolf is a top predator.
- 6 Suggest what might happen if the numbers of red deer fall.



Pyramids of numbers

A grey wolf needs to eat an average of 3kg of meat per day. A red deer probably has about 25kg of meat on it, whereas a rabbit has around 2kg. Both the deer and the rabbit eat grass.

- 1 Sketch the pyramid of numbers for the food chain:
wolf – deer – grass
wolf – rabbit – grass

- 2 Explain why these pyramids are very different shapes.

Managing ecosystems

- 1 Red deer tend to stay in one area and over-graze it. Suggest how they would be affected by the introduction of wolves.
- 2 The presence of red deer supports hunting and shooting, which generates revenue. Suggest whether this is a good reason to support the reintroduction of wolves.
- 3 Research rewilding. Suggest whether people who support rewilding would agree with the reintroduction of wolves.

What questions do you have now?



Next steps

State whether or not you think that wolves should be reintroduced. Include evidence to support your judgment. Make it clear how this supports your ideas.



At home

Can you suggest a wild animal that you don't see around that you think people would be happy to see introduced (or reintroduced) into your local area? Suggest whether it would fit in well and why.



Career options

Farmers, land owners, charities, pressure groups and government agencies all need people qualified to make informed proposals about changes to land use and the effects of these changes.



Skills unlocked

Logical, committed



SHOULD WE REINTRODUCE WOLVES INTO THE WILD?

FOOD WEB CARDS

| | | | | |
|-------------|----------|--------------------------------|---------|-------|
| Wolf | Red deer | Vole | Frog | Cow |
| Pine Marten | Hare | Bird (including as eggs) | Worm | Sheep |
| Rabbit | Beaver | Fungi | Heather | |
| Fox | Grass | Fruit | Trees | |

WHAT ARE BIOMES AND WHAT CHALLENGES DO THEY FACE?

In this activity you will learn about and consider the role of biomes in the overall 'living system' of our planet, research the causes of problems threatening these biomes, and then research and develop your own innovative solutions for a positive future.

🕒 2+ hours



Kit list

Access to a computer
for the following
resources:

[The Living Planet Report – Youth Edition](#) ✨

[Discover Our Planet classroom resources | WWF](#) ✨

[Our Planet Biomes Binder \(PDF\) | WWF](#) ✨

[Our Planet | Explorable Globe](#) ✨

Additional worksheet
on page 13

Instructions

- 1 Working in small groups or individually, research the challenges facing one of the six biomes featured in the Our Planet Biomes Binder (grasslands, freshwater, forests, seas, jungles, or frozen worlds).
- 2 Use the Our Planet Explorable Globe to find videos and animations that bring the key subjects to life.
- 3 Consider the human activities that are causing the biome to be damaged or threatened, and come up with ideas for new technologies or techniques that could meet human needs without causing the same problems.
- 4 Present your idea using the worksheet provided, explaining how it would work and the positive effect it would have on the planet. Share and discuss your ideas with other groups and decide which ones could be the most effective.

What questions do you have now?

Next steps

Pick a different biome and repeat steps 2 and 3. What similarities and differences can you identify?

At home

In your local area can you identify any threats to nature? Why not email your Member of Parliament (MP) with ideas to help nature around you.

[WWF_ClimateChallenge_Overview.pdf](#) (p18) ✨

Career options

There are many different career paths you can take that can help shape the future of our planet, from scientists and research specialists to government policy makers and technological innovators.

Skills unlocked

Open-minded, hard-working



WHAT ARE BIOMES AND WHAT CHALLENGES DO THEY FACE? SOLVE THE PROBLEMS OF TODAY FOR A BRIGHTER FUTURE

Consider possible approaches that might stop the biome being harmed. Try to come up with at least one for each category:

- **Technology** What new invention might allow us to carry out the activity without causing harm to the biome?
- **Education** Who could help solve the problem if they behaved differently?
- **Policy** What could governments do to improve the situation? E.g. laws to restrict certain activities or funding for new technologies.
- **Conservation** How could the natural world be helped to cope with these human activities and recover from damage already caused?

Choose one of your solutions and develop it further by thinking through how it could be made a reality. Think whether it might cause any new problems as it solves the issue you are seeking to address.

How do you think you should communicate your vision of the future to other people? You could create a poster advertising your idea or prepare a presentation.

When all ideas have been presented back to the class, consider how the world might be different if all these ideas were made reality. Is this a world you would want to live in?

Name(s):

Biome:

What problem are you trying to solve?
How is the biome being harmed and why is it happening?

Brainstorm your solutions using the categories to the left for inspiration.

WHAT'S THE BEST LIGHT COLOUR FOR PLANT GROWTH?

Increasing crop production is vitally important as the world population increases. Growing food in greenhouses using artificial light contributes to improved food security in Britain and the rest of the world because it extends the growing period of plants. This activity challenges you to plan and investigate the effect of different colours of artificial light on pea plant growth.

🕒 1-2 hours + growing time



Kit list

Pea seeds (preferably pre-soaked and starting to germinate)

Potting compost

Seed trays, plant pots or cream pots

Several similar boxes with removable lids
e.g. photocopier paper boxes

Different coloured filters (red, green, blue, yellow, cyan, magenta and colourless are suggested) **or** **different coloured LED bulbs**

Measuring cylinders/beakers

30 cm rulers

Balance scales
(to 0.1 g or 0.01g precision)



Instructions

- 1 The global population is rising quickly and so it is essential to also increase global food production. Greenhouses offer a good solution for extending the growing season by providing plants with a warmer environment, one that is sheltered from the wind and has better light from artificial sources.
- 2 Which colours of light do you think are the most important for growing plants? Your challenge is to find out which colour light will help pea plants grow most successfully.
- 3 Plan your investigation. Think about what your independent and dependant variables will be. Which variables will you need to control?
- 4 You might like to grow your pea plants in different cardboard boxes, cutting holes in the top of the boxes, watering and shining a light onto the pea plants through different coloured filters. Then you could measure the growth of the pea plants either by weighing them or measuring their height.
- 5 Growing more than one pea plant in each box will help you to improve the reliability of your results.
- 6 Write a scientific report describing your method and showing the results.

What questions do you have now?



Watch out

Spills should be cleared up immediately and you should wash your hands after handling compost. Lamps will become hot so take care to avoid burns. Water should be kept away from sources of electricity.



Next steps

Write a recommendation to British farmers based on the evidence you have collected about the best colour light for growing plants in a greenhouse.



At home

Why not repeat the experiment with other vegetable plants and see whether the results are the same? Do different plants react differently to light colours?



Career options

The diverse and rapidly changing world of food and farming has thousands of fantastic STEM career opportunities. Whether you are interested in robotics, animal welfare, engineering, horticulture, business or food technology, there is a career for you. Visit tiah.org/careers ✨ to find out more.



Skills unlocked

Patient, logical

WHAT'S THE BEST DESIGN FOR A WIND TURBINE?

In this activity you will investigate wind power as a sustainable energy source and design a simple wind turbine capable of lifting a cup off the floor up to bench height.

🕒 1.5-2 hours



Kit list

Scrap card

Sellotape

Masking tape

Blu tack

Split pins

Pencils

Scissors

String

Paper/plastic cup

Weights (gram weights or pennies)

Hairdryer set to cold (to simulate wind)

Access to an Internet-connected device/books on sustainable energy for research



Instructions

- 1 Carry out some research into wind power and if it's affordable. Start to think about how wind turbines work.
- 2 Consider the things you use electricity for each day, and the different ways electricity is generated.
- 3 Design a wind turbine that uses wind (from a hairdryer set to cold) as power to lift a cup off the floor.
- 4 Think about the design of the blades, how to attach the blades to a shaft and how to attach your machine to the desk.
- 5 Test your machine then adjust the size, number, shape, thickness and angle of the blades and test again. Record what works and what could be improved. Ensure fair testing, e.g. check the hairdryer is a fixed distance away from the blades each time.

What questions do you have now? Could your school rely solely on wind power? Where would be the best place for a wind turbine in your local area?



Watch out

- Wear any necessary safety clothing e.g. goggles or gloves.
- Ensure the hairdryer is set to cold.
- Clear away any trip hazards promptly.



Next steps

This activity can be put towards a Bronze CREST Award. Find the full activity in the CREST resource library: crestawards.org/resources/crest-bronze-industrial-strategy-grand-challenges ✨.



At home

Research other sustainable energy sources and think about how we could harness them more efficiently.



Career options

Tackling the changing climate will be vital for the future of our planet, and there are lots of fulfilling careers you could pursue to find ways to reduce carbon emissions.

- Wind energy engineer – someone who designs and maintains different types of technologies that harness the wind's power to create energy.
- Sustainability consultant – someone who works with businesses to help them reduce their carbon footprint and operate in an eco-friendly way.



Skills unlocked

Self-motivated, passionate



WHAT'S IT LIKE TO LIVE AND WORK IN THE ANTARCTIC?

The early explorers of Antarctica were looking for new sources of seals and whales to exploit for their pelts and oil. In the last 100 years, through international science programmes, we now understand that Antarctica is pivotal in the Earth's climate system and a sensitive barometer of environmental change. In this activity, you will investigate the geopolitics of Antarctica and design a science station suitable for scientific research in Antarctica.

🕒 2+ hours



Kit list

Access to a
computer or fact
sheets on Antarctica

Coloured pens

A3 paper (for
design)

i Instructions

There are few places on Earth where there has never been war, where the environment is fully protected, and where scientific research has priority. In 1959, the governing Antarctic Treaty, which unites over 50 nations, made Antarctica a continent dedicated to scientific research with a common aim: to encourage international cooperation and protect the environment for future generations.

- 1 Start by doing some research on past and present buildings in Antarctica - what was their purpose and how were the stations designed?
- 2 Think about the key scientific knowledge you will need for designing your station. For example:
 - What is the terrain like? Where would you locate it?
 - How cold can it get in Antarctica?
 - What temperature will it need to be inside the station? How will you heat the station? How will you maintain the temperature? Think about thermal energy and insulation.
 - What will the inhabitants be doing there? What equipment and rooms will the station need to accommodate them?

- 3 Consider the kind of science that will be completed in the station and what equipment and storage the researchers will need. Consider what other elements might need to be included:

- How will you reach your station?
- Will researchers live in the station or will they have a separate building to stay in?
- How and where will they eat, sleep, exercise etc?
- How will researchers travel around?
- How can you make the research station representative of all the nations involved?

- 4 Make a design for the station, incorporating everything you have considered above. How will you communicate your ideas?

- 5 You may also wish to consider how materials will be transported to the Antarctic to build your station.

What questions do you have now?



Next steps

Use these links to research and refine your survey station.

ukaht.org/virtual-visit ✨

bas.ac.uk/polar-operations/life-in-the-polar-regions ✨

discoveringantarctica.org.uk/how-is-antarctica-governed/geopolitics/geopolitics-of-antarctica ✨



At home

Think about how your home is kept warm in the winter. You could also research the history of the discovery of Antarctica or the Antarctic Treaty.

For more facts on Antarctica visit ukaht.org ✨



Skills unlocked

Committed, passionate



BRITISH
SCIENCE
WEEK

Activity
sheet

WHAT'S IT LIKE TO LIVE AND WORK IN THE ANTARCTIC?

Since its discovery, Antarctica has had a chequered past. Once news of this new land was known, global exploitation of its abundant seal population began almost immediately; later it was whalers that would exploit the environment.

During the 20th century, the focus of human activity in Antarctica shifted to a new form of exploration, as scientists began to study the continent's environment and biodiversity and steps were taken to protect them. Today, scientific research in Antarctica shapes how we see and understand our world.

Whilst the treaty does not have an expiry date, in 2048 any country can call for a conference to renegotiate the terms of its environmental protection.

The Antarctic Treaty was set up in 1959 by 12 nations. Now, more than 50 countries have signed up to this unique set of principles.

Legal protocols have since strengthened the protection of the environment, forbidding mineral and oil exploration, controlling human activity in Antarctica.



WHAT SHOULD WE TRUST MACHINES TO DO FOR US?

In this activity you'll think about the risks involved in machine learning, but also how it can be useful and enhance our lives. You'll be presented with different types of machine learning jobs and sort them based on how much you'd trust them to do the job.

🕒 30-45 minutes



Kit list

Jobs card sheet print out

On page 19

Decision chart print out

On page 20

Scissors



Instructions

- 1 After you have been put into groups, cut out the cards on the jobs card sheet.
- 2 Read each example and discuss with your group:
 - How useful or not would a machine that does this be?
 - How much would you trust a machine to do this?
- 3 Based on your discussion, place the cards on the decision chart. When you have placed all the cards on the decision chart, discuss in your group:

- Are they spread evenly around the chart?
- Are there any patterns with the types of things you think are useful and not useful?
- Are there any patterns with the types of things that lots of people trust or would not trust a machine to do?
- For the things that you would not trust a machine to do, is there anything that would change your mind?



Next steps

This activity can be put towards a Discovery CREST Award. Find the full activity in the CREST Discovery Machines of the Future resources: crestawards.org/resources/crest-discovery-machines-of-the-future ✨.



At home

Look around your house and think about what devices your household has that use machine learning. What role do they play? Do they enhance your life?



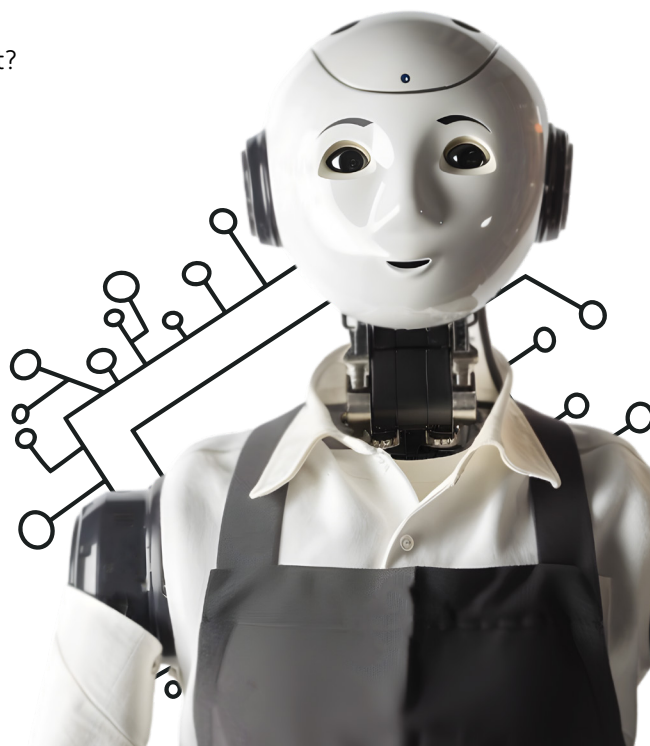
Career options

- Machine learning engineer – someone who builds and maintains the systems that allow machines to learn from data. They often work as part of a data science team.
- Data scientist – someone who analyses complex sets of data to find meaningful results. They can use this information to solve problems and make decisions.



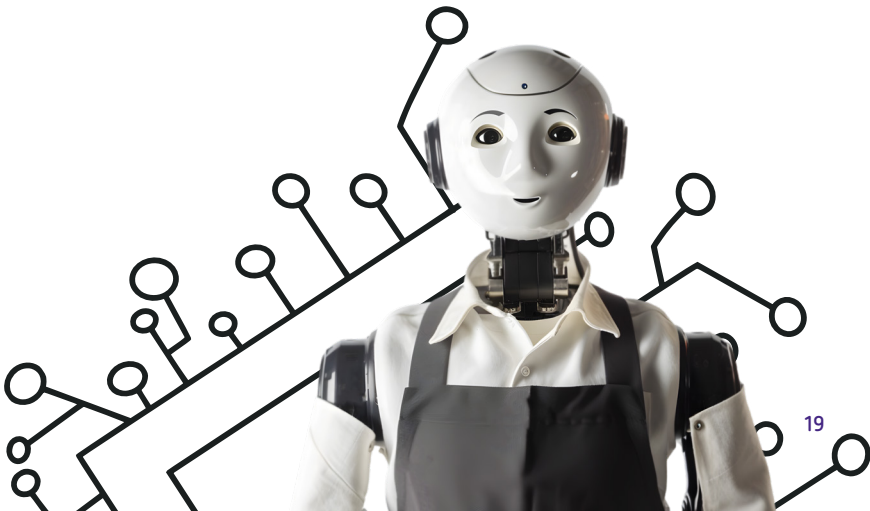
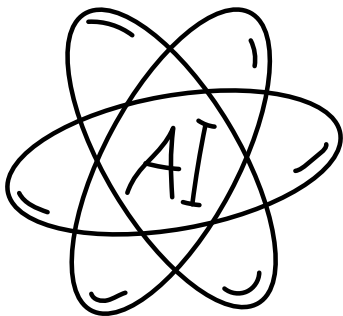
Skills unlocked

Open-minded, imaginative





| | | |
|--------------------------------------|-------------------------------|---|
| Buy a gift for your best friend | Prepare meals for you | Reply to messages from your friends |
| Post pictures of you on social media | Choose your clothes for you | Book an appointment for you |
| Prescribe medical treatment for you | Drive a car | Take photographs at your birthday party |
| Teach you a foreign language | Give you driving lessons | Referee a football game |
| Mark a school test | Order for you in a restaurant | Decorate your bedroom |





BRITISH
SCIENCE
WEEK

Activity
sheet

Trustworthy

Useful

Not useful

Not
trustworthy

Decision chart

Place the cards on
this chart to show
how trustworthy or
useful they are



WHAT'S THE BEST WAY TO PROTECT IMPORTANT OBJECTS?

Can you be a detective for museum treasures? At the Prince Philip Maritime Collections Centre, precious objects need protection. Each material has a different enemy! In this activity, you'll become a conservator detective, solving puzzles and using creativity to stop damage and keep special objects safe for the future.

🕒 1 hour

Kit list

Agents of deterioration sheet (found on following page)

Condition report downloadable from
Make a Museum | Royal Museums Greenwich 'What does a conservator do?' ✨

Everyday objects made from materials like wood, stone, paper, plastic or metal

Extra challenge - use craft materials to build a strong protective case.

Instructions

- 1 Team up with a partner. Choose three objects made from different materials (like paper, wood, or metal).
- 2 Use the condition report as your detective guide. Look closely and answer the clues. What do you notice about each material?
- 3 You are now conservator detectives! Check the 'agents of deterioration' list. Which sneaky villains (light, pests, water, people, etc.) might attack your objects?
- 4 Design a super-protective container for each object. Use your creativity and science skills to stop the villains!
- 5 Present your design to the class. Show your evidence: why did you choose those protections? Example: This comic book fades in sunlight, so I used UV glass to block the rays.
- 6 Compare your three objects. Did they all need the same protection, or something different?

What questions do you have now?

Next steps

Visit rmg.co.uk/schools-communities/schools-hub ✨ for more resources and information on how to visit Royal Museums Greenwich.

At home

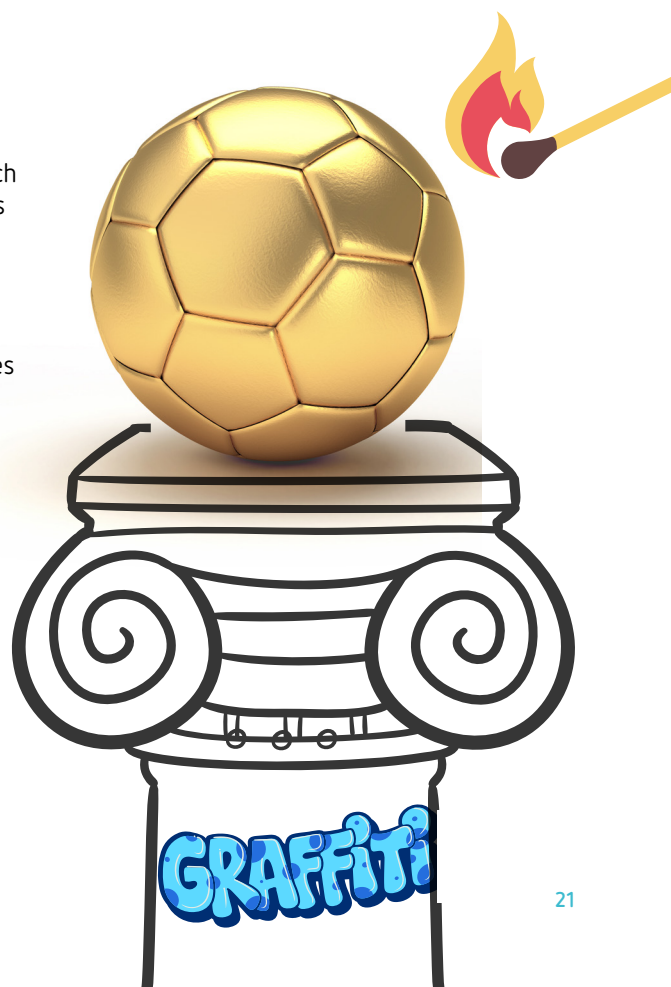
Keep your treasures safe! Store drawings away from sunlight, handle special objects with clean hands and protect treasured keepsakes from water, dust, or pets.

Career options

If you love solving mysteries and protecting history, you could become a **museum conservator, curator, or archaeologist**. These careers look after important objects and stories. Scientists, artists and historians also help care for our past. Conservators make sure future generations can see and enjoy today's treasures.

Skills unlocked

Curious, self-motivated



Supporting Information

Agents of deterioration

Objects can be damaged in many ways. Here are some examples you may wish to consider when thinking of how to protect your objects. Can you think of any other examples?

Human action

Often objects become damaged through misuse or not being stored properly. Physical force can damage artefacts directly by causing stress, breakage and pressure. This could be due to stacking objects on top of each other or accidentally knocking into an item. Staff at Royal Museums Greenwich prevent physical force damage by storing artefacts in cases or in cabinets. The most common cause of damage by humans is over-cleaning. Vandalism or theft are also a concern, especially for objects in public areas.

Light

Light damage can be caused by overexposure to either natural or artificial light. Light has the biggest effect on textiles and paper-based objects, and in the case of letters or manuscripts, can result in the object becoming unreadable. It's a shame if artefacts fade from exposure to excessive light, as it makes it harder to see what the artefact originally looked like. Staff at Royal Museums Greenwich try to minimise the amount of times light sensitive objects are exposed to light by rotating them from display and storing them in dark cabinets or containers.

Fire

Fire can cause smoke damage, or partial or total loss of the artefacts. As a result, it is important that fire prevention be given the highest priority possible. Royal Museums Greenwich has special buildings which are designed and maintained as its greatest fire defence. Secondary housing can also protect the objects from fires. Secondary housing means putting a container within another container to create an extra barrier.

Water

Water damage can result from natural occurrences, human intervention or plumbing failures. The museum stores its collection off the floor and inside cabinets, in case of a leak or flood.

Pests

Pests such as insects and rodents can sometimes see the valuable collection as a nice snack rather than an artefact. They are attracted to objects made from natural materials, such as plants and animals.

Before adding new objects into the collection, staff at Royal Museums Greenwich place all organic items into quarantine. In quarantine the new organic objects are frozen which eradicates any potential pests and their eggs. All objects from natural based materials are then stored in containers which prevent cases of pests.

Pollutants

Pollutants can be natural or man-made gases, aerosols, liquids, dust or dirt that are known to accelerate decay of the objects. Aerosols and liquids that are commonly seen around the home are household cleaners, bug sprays, and detergents. The chemicals within these sprays can attach to the objects and slowly cause it to decay.

Temperature and humidity

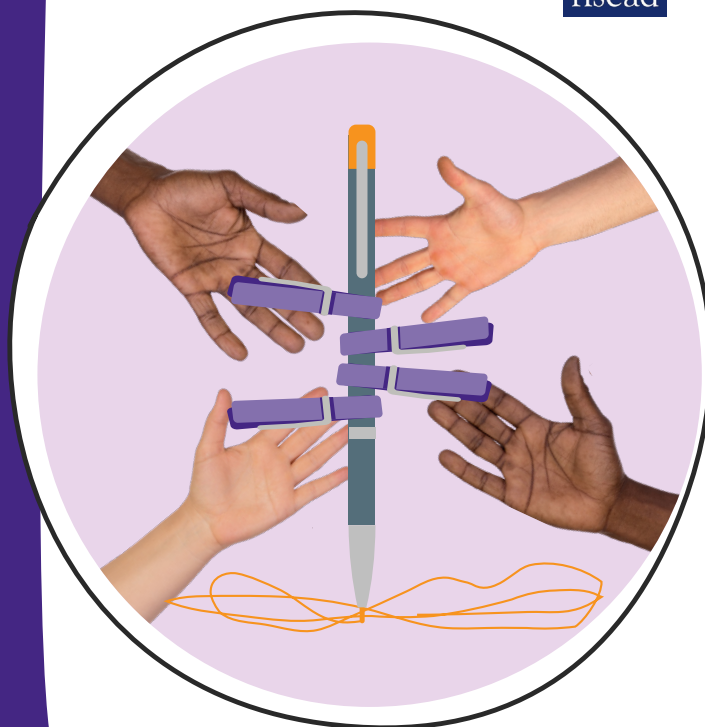
Incorrect temperatures and humidity can damage the objects. Depending on the material of the object, it can react in different ways to extremes of temperature and humidity. Warm and damp conditions may result in mould.



WHAT DOES GREAT TEAMWORK LOOK LIKE?

All good science, technology, engineering, arts and maths (STEAM) practice requires collaboration; the ability to work with others effectively, even when you may not necessarily see eye to eye. This fun exercise gets four people holding the same drawing pen with pegs, then asks them to draw a STEAM-themed image collaboratively. Will your drawing descend into chaos or will your diverse characters learn to work effectively together?

🕒 15-20 minutes



Kit list

Four spring
clothes pegs

Felt tip pen

Large A1 size paper
- divided into nine
equal squares

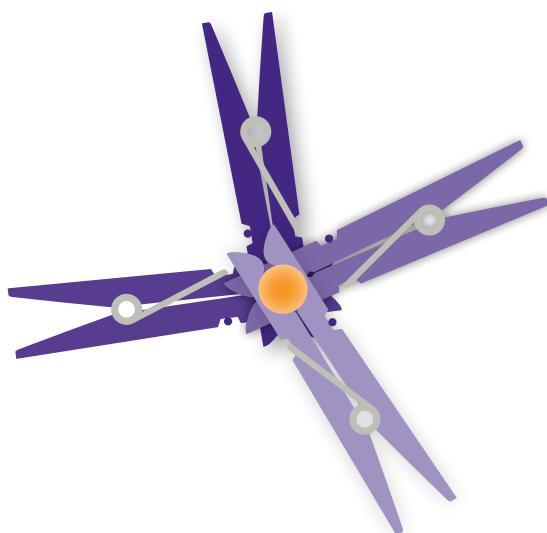
Suitable photograph
to copy - divided
into 9 equal squares

Masking tape



Instructions

- 1 Fix the piece of A1 paper to a desk.
- 2 Attach four clothes pegs to the felt pen so they face different directions.



- 3 Place the image to be copied (flowers and animals are good for this) near the A1 paper.
- 4 In groups of four, stand around the paper and have each person hold a clothes peg.
- 5 No talking is allowed at this stage – place your non-drawing hands over your mouths!

- 6 Now, try to copy the photo accurately using the squares to guide you – you're allowed five minutes to complete the task.
- 7 Evaluate the exercise. Was it difficult? If so why?
- 8 Now repeat the exercise (with a different photo if you prefer). This time you can speak to each other.
- 9 Evaluation: how does effective communication affect our ability to do this task better?

What questions do you have now?



Watch out

- ⚠ Be careful of getting felt tip on clothes.



Next steps

For more resources visit nsead.org 🌟



At home

Practice drawing with a peg and felt pen at home to make more expressive, creative drawings.



Skills unlocked

Collaborative, creative

This exercise was adapted from the book *Drawing for Science Invention & Discovery* by Paul Carney.

HOW IS INFORMATION STORED ON MAGNETIC MATERIAL?

This activity is designed to show you how magnetic force can be used to store information. You'll learn to write your name and other words in a pattern of 1s and 0s called binary code, then use it to read hidden words with just a magnet!

🕒 1 hour

Kit list

Binary sheet printout (on the following page)

Magnets

A large number of small magnetic discs
i.e. metal washers or small coins, 1p or 5ps

A large number of small plastic discs

Blu tack or other sticky tack

Pieces of card

Pens

Paper

Instructions

- 1 Your teacher will put you in groups of two.
- 2 Using the binary table on the next page, write your initials in binary, but instead of using a pen and paper to write the numbers, use the metal and plastic discs on the table. Metal discs represent 1s and plastic discs represent 0s.
- 3 Stick your discs on to the table using the sticky tack, so they can't move.
- 4 Next, choose a question word linked to curiosity (who, how, why, what, where, when) and write it in binary using the metal and plastic discs. Keep it a secret from your partner by covering it with a piece of card. Both members of the group should do this.
- 5 Swap seats with your partner and 'read' their secret word by running a magnet over the card covering their discs.
- 6 As you feel if the discs are magnetic or plastic, write down 1s or 0s on your piece of paper, then use the binary table to translate the code into a word.

In this way, information can be stored by adding a magnetic property to a material. For example, credit cards store information on a magnetic strip and hard drives work by adding a magnetic property to a metal disc.

What questions do you have now?



Next steps

Can you write a short science question in binary for your teacher or another group to read?

This activity can be put towards a Discovery CREST Award. Find the full challenge in the CREST Resource Library:

crestawards.org/resources/crest-discovery-enrich-my-classroom-student-pack/ ✨

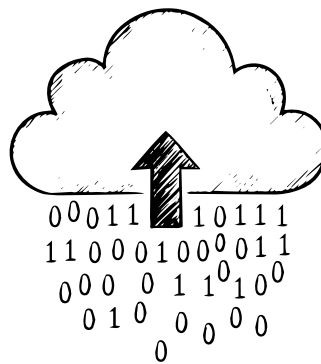
At home

Use your knowledge of binary code and magnetism to write secret messages for your friends and family.

Career options

- Software engineer - someone who designs and maintains software systems.
- Cyber security analyst - someone who protects an organisation's computer systems from cyber threats.
- Data scientist - someone who uses machine learning to interpret large datasets.





| UPPERCASE | Binary |
|-----------|-----------|
| A | 0100 0001 |
| B | 0100 0010 |
| C | 0100 0011 |
| D | 0100 0100 |
| E | 0100 0101 |
| F | 0100 0110 |
| G | 0100 0111 |
| H | 0100 1000 |
| I | 0100 1001 |
| J | 0100 1010 |
| K | 0100 1011 |
| L | 0100 1100 |
| M | 0100 1101 |
| N | 0100 1110 |
| O | 0100 1111 |
| P | 0101 0000 |
| Q | 0101 0001 |
| R | 0101 0010 |
| S | 0101 0011 |
| T | 0101 0100 |
| U | 0101 0101 |
| V | 0101 0110 |
| W | 0101 0111 |
| X | 0101 1000 |
| Y | 0101 1001 |
| Z | 0101 1010 |

| lowercase | Binary |
|-----------|-----------|
| a | 0110 0001 |
| b | 0110 0010 |
| c | 0110 0011 |
| d | 0110 0100 |
| e | 0110 0101 |
| f | 0110 0110 |
| g | 0110 0111 |
| h | 0110 1000 |
| i | 0110 1001 |
| j | 0110 1010 |
| k | 0110 1011 |
| l | 0110 1100 |
| m | 0110 1101 |
| n | 0110 1110 |
| o | 0110 1111 |
| p | 0111 0000 |
| q | 0111 0001 |
| r | 0111 0010 |
| s | 0111 0011 |
| t | 0111 0100 |
| u | 0111 0101 |
| v | 0111 0110 |
| w | 0111 0111 |
| x | 0111 1000 |
| y | 0111 1001 |
| z | 0111 1010 |

WHO'S YOUR STEM PERSON OF THE WEEK?



You already share many of the skills of people working in STEM fields; they have the same skills and attributes that you already have. Creating a STEM Person of the Week card will allow you to explore the huge range of exciting STEM jobs, learn about the people who work in STEM and find out which skills you share with them.

🕒 1 hour



Kit list

A computer/
laptop/tablet with
internet access

Pens and colouring
pencils

Additional worksheets
on page 27-28

STEM Person of the
Week cards.

Download and print from
[nustem.uk/stem-
person-of-the-week](https://nustem.uk/stem-person-of-the-week) ✨



Instructions

- 1 Take a look at a STEM Person of the Week card, each card is made up of different sections:
 - The person's name
 - Their job title
 - A short description about what they do and how they show their three skills
- 2 Now you need to find your own STEM Person who you'd like to showcase. Try thinking about the following things:
 - Diversity - search for engineers and scientists from all over the world.
 - Try to find current, working scientists and engineers instead of the ones you might usually find in textbooks. You could do an internet search, or you can check out the Smashing Stereotypes

profiles to find someone interesting to feature: britishscienceweek.org/smashing-stereotypes-the-profiles ✨.

- You might even find your STEM person in real life, perhaps you or your family knows someone who works at a local STEM firm, or maybe one of your family or friends already works in STEM - you could ask them to be your STEM Person.

- 3 Use the template on the next page to make your own STEM Person of the Week card, you'll need to add their name and a photo if you can find one. Then you can write your description about them, saying who they are and what they do. Make sure you mention three skills that they use in their STEM role (you can use the table to find out about the different STEM skills and what they mean).



Next steps

On the second page of the template, there's space for you to write down things that you've done to show how you have the same skills as your STEM person. Make notes in the boxes each time you do something that demonstrates the skills.

For more examples of STEM Person of the Week cards have a look at the sets at nustem.uk/stem-person-of-the-week ✨.



At home

Tell people at home about your STEM Person of the Week. Do members of your family share any skills with the person you chose? Ask them if there are any STEM jobs that they would like to do!



Career options

Get everyone in the class to present their STEM Person of the Week to find out about some of the many different jobs and careers that are linked to STEM.



Skills unlocked

Curious, open-minded

Check our Smashing
Stereotypes profiles
to get inspired! ✨

Meet Pearl

physical climate scientist

Pearl uses data to help companies understand the impact of their actions, like using too much water or energy or working in ways that harm nature.

Skills you could learn from Pearl:

Communicator, passionate, organised



STEM PERSON OF THE WEEK

Name

Job Title

Skill 1

Skill 2

Skill 3



Find more inspiration from the
Smashing Stereotypes campaign
on page 30!

WHO'S YOUR STEM PERSON OF THE WEEK?

Use this space to write about your STEM Person of the Week.
Try to describe what they do and include three of
the skills that you think are best suited to their work.

- **Open-minded** people are willing to listen to new ideas and respect other people's views and opinions.
- **Creative** people make new things and have original ideas.
- If you show **commitment**, you stick with an activity and try your hardest to make it happen.
- **Passionate** people have strong feelings about things that interest them.
- **Self-motivated** people like to do things for themselves without being told how to do them.
- If you are **observant** you are quick to see things, you are able to spot fine details and you are good at paying attention.
- **Communicators** are good at sharing information and ideas with other people.
- **Hard-working** people put all of their effort into finishing things.
- **Collaborative** people work together to do things.
- **Resilient** people can quickly recover from difficult or challenging things.
- **Logical** people can solve problems by thinking through them in a sensible order. They understand how one action can lead to another.
- If you are **imaginative**, you can think of new and interesting ideas.
- If you are **patient**, you are able to stay calm when faced with problems.
- **Organised** people are good at planning to make sure they finish things.
- If you are **curious**, you want to learn new things.



STEM PERSON OF THE WEEK

Name

Job Title

Like

I am

WHO'S YOUR STEM PERSON OF THE WEEK?

Skill 1:

(Use this space to explain how you show skill 1)

Skill 2:

(Use this space to explain how you show skill 2)

Skill 3:

(Use this space to explain how you show skill 3)



GOT MORE QUESTIONS? ASK A SCIENTIST!

Who inspires you? What is being a scientist like? Have you ever created something new? Ask real-life scientists your questions, connect with them through our online chat, and then vote for your favourite scientist to win £500!

🕒 10 minutes to read about the scientists you're going to chat with and prepare your questions. 30 minutes for the live chat



Kit list

A computer/
laptop/tablet with
internet access

A login card from
your teacher



Instructions

- 1 Log in to imascientist.org.uk ✨ with either a login card or the registration URL your teacher gave you.
- 2 Click 'The Scientists' in the menu bar and read through some of the scientists' profiles. What are they working on? Do you have anything in common with them?
- 3 Prepare 2-3 questions for the scientists in your chat. You can see which scientists have signed up on your dashboard.

When it's time for your chat

- 4 Your teacher will tell you when to log in. Click 'Chat' at the top of the page to join the chat session.
- 5 Ask your questions and chat with the scientists - they're excited to answer your questions!
- 6 Dive deeper by asking a follow-up question after the Chat.



Watch out

Our chats are safe and secure with our friendly moderators, but never give out personal information, even your social media handles or gamer tags, online.



Next steps

Head to imascientist.org.uk ✨ for further information, including how you can ask questions and vote for your favourite scientist. You could also choose one of the scientists you chat with and use them to do the STEM Person of the Week activity!



At home

Get the grownups at home involved with our fantastic evening chats. Safe, secure and moderated online chats take place Monday-Thursday, 5-6pm, during British Science Week, for some homework you'll definitely look forward to.



Career options

Ask our scientists questions about what YOU are interested in. You might be surprised by how much science touches our everyday lives without us even noticing. Science is all around us and we benefit from science every day... even if you don't become a scientist!



Skills unlocked

Curious, open-minded



These pages could
inspire secondary
students

SMASHING STEREOTYPES

Smashing Stereotypes is a campaign run by the British Science Association which aims to dispel stereotypes of who scientists are and what they look like, and about the jobs people associate with science.

We have a collection of around 60 stories from individuals and teams from a variety of different backgrounds that challenge long-standing stereotypes, encouraging more young people, from all backgrounds, to see themselves as scientists.

With profiles of chefs, product designers, and fitness professionals, Smashing Stereotypes proves that science is for everyone, whatever your interests, background, or career path.

Smashing Stereotypes showcases the variety of careers on offer and highlights careers that you may not initially associate with STEM. The campaign also reinforces that there's no 'typical' route into a science role.



MEET NIC VISION IMPAIRED ASTRONOMER

Making space science
accessible for everyone

Growing up in Bendigo, Australia, Nic spent his childhood stargazing with his family at night.

Even though he's blind, his parents described the stars so well that he could picture them in his mind. He was fascinated by the universe and wanted to learn more about it.

Now, Nic is an astronomer! He's working to help everyone, no matter their abilities, to experience the stars and galaxies through touchable, tactile objects.

No one ever told Nic, "You're blind, so this will be too hard." Instead, his teachers and family helped him find creative ways to solve problems.

They worked together to make learning accessible, even if it meant coming up with unusual solutions.

There's always a way to make your dreams come true. You just have to get creative.

Check out Nic's full profile on the British Science Week website ✨

SKILLS YOU COULD LEARN FROM NIC:

Resilient,
creative,
curious

MEET TENDAI PLANT-BASED FOOD ENTREPRENEUR

Nourishing people and the planet with sustainable, plant-based African meals

Tendai always loved cooking, but started his career in civil engineering, working as a construction package manager before moving into a design management role.

Despite enjoying his work in engineering, his passion for food didn't fade, so he launched Veafy, a plant-based African meal prep business.

Working in a culinary field might not seem like a STEM job – but it is! Cooking is chemistry, balancing flavours is science, and plant-based eating has so many nutritional benefits.

Tendai wanted Veafy to offer healthy meals, and this involves understanding nutrition, and ensuring meals have the right balance of what our bodies need.

Working in construction, Tendai noticed that there weren't many Black professionals in the industry. Through his platform as an entrepreneur, he wants to show others from diverse backgrounds that there are opportunities in entrepreneurship across STEM professions.

Check out Tendai's full profile on the [British Science Week website](#) ✨

SKILLS YOU COULD LEARN FROM TENDAI:

Committed,
imaginative,
hard working



MEET PEARL PHYSICAL CLIMATE SCIENTIST

Transforming climate data into
real-world impact

Pearl uses data to help companies understand the impact of their actions, like using too much water or energy or working in ways that harm nature.

Like so many people, she used to think science was only about engineering. But at school, she took part in loads of science activities.

She got involved in tech labs, built cool battle bots, and worked with bandsaws, realising it was so much more.

She's a changemaker and wants to see more women in STEM, just like her.

And her work doesn't just stop there. Pearl even organised panels at COP26, the world's biggest climate summit where world leaders make decisions about our planet!

Check out Pearl's full profile on
the British Science Week website ✨

SKILLS YOU COULD
LEARN FROM PEARL:
Communicator,
passionate,
organised



BRITISH SCIENCE WEEK POSTER COMPETITION

What are children and young people's visions for a good/positive childhood?



thinking. Which of these trends do you think might contribute to a positive future? Do any of the trends shape your own ideas?

This year, the British Science Week poster competition is taking curiosity to the next level! We're working with a team of scientists who are curious about what children and young people think will make a 'good'/'positive' childhood in the future. We will all be thinking together about the same question.

You can read more about the research on page 35, but if you're keen to get started here's how you can enter...



Instructions

Start by considering the following:

What makes children's lives positive? What will a positive childhood look like in the future for young people your age?

We are most interested in your own original ideas, but to develop your thinking before creating your poster, you could consider:

- What things make your life positive now?
- What was childhood like in the past? What makes young people's

lives positive now? What would you like a positive childhood to look like in the future?

- Imagine your own children, if you have them, in the future. What would a positive childhood look like for them? What will they be playing / doing / eating / learning / thinking? Who will they be doing these things with?
- What would you improve to make young people's lives more positive in the future? Can you think of any solutions for things that you wish could be different for young people today? How would this change things? How might your generation make things more positive for young people in the future?
- If you could ask a young person from 2036 about their life, what would you want to know? What do you think a positive childhood might look like for them?
- Can you do some research to gather data or information on childhood trends over time? There are also some additional resources on pages 36-38 that you might find useful to help you with your

'Childhood' is a broad phase of life (from 0-18!), so we would encourage you to focus your ideas on young people who are a similar age to you.

Make your poster

Once you've had the opportunity to explore the questions, carry out some research and collect your thoughts, it's time to get creative! You should present your ideas by creating a poster using any materials that you like, including digitally. Your poster must be A4 or A3 in size and you'll need to be able to supply a 2D image of it (e.g. photo, jpeg or PDF file) so it can be sent to us online for judging. You might like to take inspiration from the way that research scientists present their work through posters. Shortlisted posters are often shared publicly, so please don't include any personally identifiable information such as names or photos of real people.

Send us your posters

Your school should select the five best posters and submit them for a chance of winning an array of prizes. For more details, along with the full set of poster competition rules and tips, check out our website: britishscienceweek.org/poster-competition ✨.

As it was last year, the competition is open to entries from all young people in the UK up to the age of 19.

BRITISH SCIENCE WEEK POSTER COMPETITION

What is the research behind this year's poster competition?



This year the British Science Week poster competition is linked to a real scientific research question. The UK government are thinking about how to build a positive future for children. They are keen to understand children and young people's own ideas on this, so they are asking:

What are children and young people's visions for a good/positive childhood?

The British Science Association and the NUSTEM team at Northumbria University have teamed up with the Government Office for Science to help explore this question.

How will the poster competition entries be used?

Once the competition is closed for entries, all the submitted posters will be considered by a team of judges. We'll also collect some data, like where in the UK the posters are from, the age of the entrants, and the themes that they reflect. This data will be anonymised before being analysed.

The team at NUSTEM will also look in detail at some of the posters, to gather further ideas and insights based on the children and young people's entries. They will then be able to look for patterns and trends as they analyse the results.

What will happen to the findings of the research?

Once the posters have been analysed, the results will be published in a report. As soon as this is available, we will share the results with everyone who takes part in the competition so you can see the outcomes and insights – it should be a fascinating piece of research!

What are children and young people's visions for a good/positive childhood?

Could your poster earn you a CREST Award?

Last year lots of the posters that were submitted clearly showed a large amount of background research and data-gathering. So much so that hundreds of entries were eligible to be recognised with either Discovery or Bronze level CREST Awards. This year, you might choose to carry out some research around childhood, to inform your thinking before you develop your own ideas about what a positive childhood will look like in the future. Whether or not you have a 'winning poster', all your hard work can still be recognised through CREST.

Find out more and how to apply here:

crestawards.org/help-centre/bsw-2026-poster-competition-and-crest-awards ✨



To find out more about the competition, the full set of rules, and how to submit entries, visit:

britishscienceweek.org/poster-competition ✨

What are children and young people's visions for a good/positive childhood?



nustem



**Northumbria
University**
NEWCASTLE

POSTER COMPETITION SUPPORTING RESOURCES



What makes children's lives positive? What will a positive childhood look like in the future for young people your age?

We are most interested in your own original ideas, but before you create your poster, you could develop your thinking around what a positive childhood will look like in the future by carrying out some research.

Interviews

You could interview some other young people your age to find out what they think. Do their thoughts shape your own ideas? You could use some of the prompts below or create your own survey questions.

- What things make your life 'positive' now?
- What do you enjoy doing?
- Are there people, places, objects or activities that make your life positive?
- What do you think a positive childhood will look like in the future?
- What do you think young people in the future will enjoy playing/doing/eating/learning/thinking? Who will they be doing these things with?

You might like to interview some adults too, to get a sense of what made childhood positive in the past. It might be useful to consider the past and how things have changed over time, to help you think about what could be different in the future – there is a resource you can use for this on page 38. Does this change your vision for the future?

Ethics

Think about what you will do with the information and data you collect from people. You could tell them about the purpose of your research and what it will be used for before you carry out your interviews. Consider whether you will need their permission if you plan to use their quotes and remember not to include any personal or sensitive data on your poster.



Secondary poster competition resource

To support you with your research, thinking and discussion ahead of creating your entry

POSTER COMPETITION SUPPORTING RESOURCES



What makes children's lives positive?
What will a positive childhood look like in the
future for young people your age?

We are most interested in your own original ideas, but before you create your poster, you could develop your thinking around what a positive childhood will look like in the future by carrying out some research.

Secondary sources

There are also lots of secondary sources of information that could help you with your research and thinking about positive childhoods. Try the links below to get you started. Do your findings shape your own ideas about what a positive childhood could look like in the future?

www.unicef.org/child-rights-convention/convention-text-childrens-version ✨

borninbradford.nhs.uk ✨

www.dofe.org/youthvoices2024 ✨

www.gov.uk/government/publications/futures-thinking-and-foresight-a-brief-guide/a-brief-guide-to-futures-thinking-and-foresight ✨

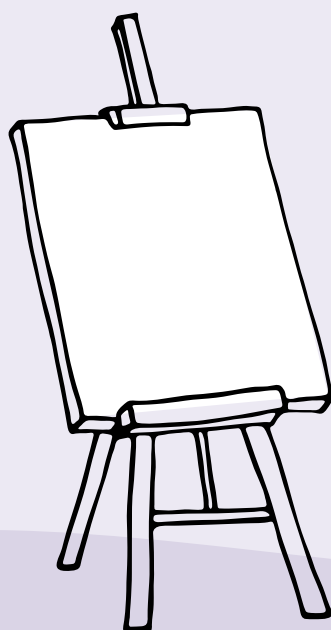
Presenting your vision for a positive childhood

When creating your entry, you might like to take inspiration from the way research scientists present their work through posters. Remember to make your vision of what a positive childhood will look like in the future really clear as part of this. You could show how your research has informed your thinking and ideas.

For tips on how to create a research poster you could consider guidance like this: sheffield.ac.uk/study-skills/university/communication/poster ✨.

Or if you're planning on creating a digital poster, you could visit: subjectguides.york.ac.uk/posters/preparation ✨.

What will a positive childhood look like in the future for young people your age?



Secondary poster competition resource

To support you with your research, thinking and discussion ahead of creating your entry

POSTER COMPETITION SUPPORTING RESOURCES

What makes children's lives positive?
What will a positive childhood look like
in the future for young people your age?

What did a positive childhood look like in the past?
It might be useful to consider the past and how
things have changed over time, to help you think
about what could be different in the future.

You could ask some adults to tell you about what made
their lives good when they were young people. Use
the timeline below to record any notes. How is this
similar or different to what makes your life good
now? Does this inform your thinking about what a
positive childhood could look like in the future?

The diagram is a horizontal timeline. It features a black arrow pointing from left to right. Above the arrow are seven empty, rounded rectangular boxes for taking notes. Below the arrow, the text 'Now 2026' is written under the sixth box, and 'Future 2036... and beyond!' is written under the seventh box.

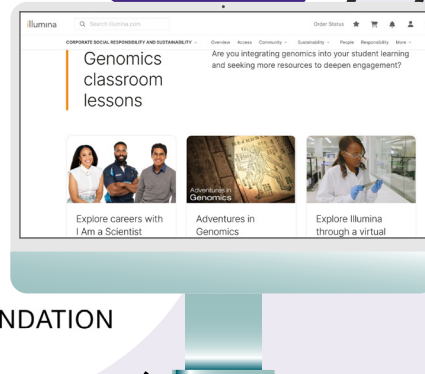
EMPOWERING EDUCATORS TO INTEGRATE GENOMICS INTO STUDENT LEARNING

Take pupils on a journey inside the world of the genome – the basis of all life on Earth.

BRITISH SCIENCE WEEK 2026

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Curiosity: What's your question about genomics?

Explore the fascinating world of genomics and find out the answers to these questions and more.

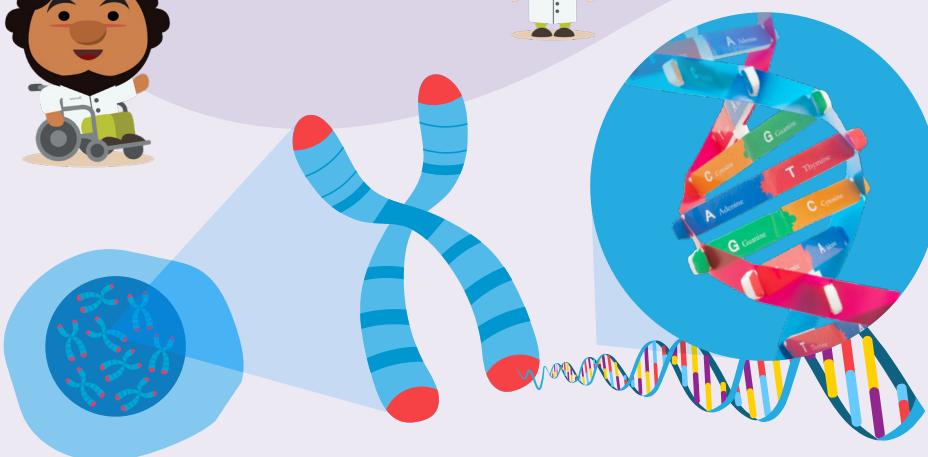
What are the secrets of genetic sequencing?

How will genome technology help astronauts function at their best in deep space?

How is targeted therapy changing treatment for cancer patients?

How can I be a disease detective?

What is the connection between the microbiome and mental health?



Integrating genomics into student learning

Illumina Corporate Foundation is focused on helping educators bring genomics into classrooms, as well as helping patients understand the hope genomics represents in rare and undiagnosed genetic diseases and cancer.

Gain an overview of how to incorporate genomics into your classroom and learn real-world connections through Illumina's free Educator Guide.

Discover the exciting ways that genomics is innovating our world through Illumina's free hands-on classroom resources including ready-to-use instructional resources, flexible digital lessons, and a virtual genomic sequencing lab.

Join two virtual field trips: discover how scientists are uncovering the secrets of *Nature's Blueprint* and take students inside the labs at Illumina in *Genomics: Decoding the Language of Life*.

Visit dnadecoded.org to find out more.



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