



BRITISH
SCIENCE
WEEK

8-17 March 2024



TIME

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UK Research
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SNEAK PEEK PRIMARY ACTIVITY PACK

Activities for children aged 5-11 (approx.)

britishscienceweek.org

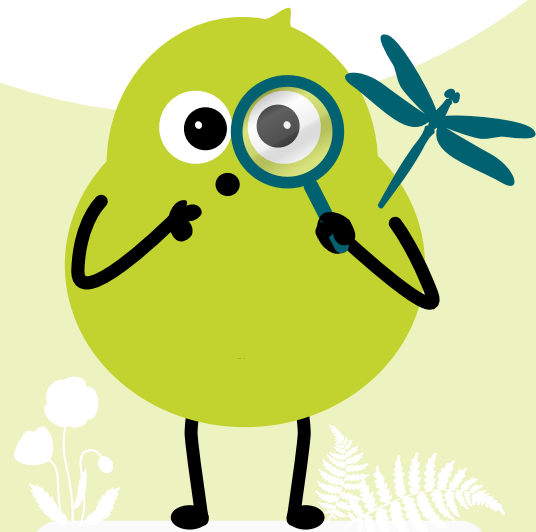


BRITISH SCIENCE WEEK



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This teaser pack includes an exciting mix of activities and ideas to help teachers, parents, carers, or childminders prepare for British Science Week.

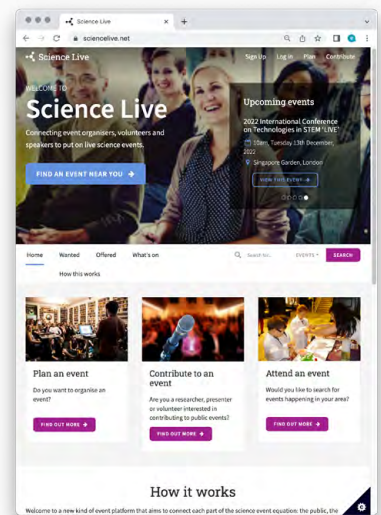


It is designed to give you a taste of our full Primary activity pack, which will be released in January 2024. Feel free to adapt or extend any of the activities to suit your children's needs or the curriculum you are delivering.

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 therefore encourage you to use British Science Week as an opportunity to link STEM to other curriculum subjects, and to your children's own backgrounds, lives, and interests.

We have included activities for children 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 Twitter (@ScienceWeekUK) and using the hashtag #BSW24.



Find an activity near you

Last year, hundreds of thousands of people participated in activities around the UK. Help us make British Science Week 2024 even bigger and better! Visit [sciencelive.net](https://www.sciencelive.net) to find science activities in your local area.



BRITISH SCIENCE WEEK



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We offer Kick Start Grants to eligible, state-funded schools, to support their British Science Week events and activities. To find out more click here: bsa.sc/BSW24-Kick-Start-Grants-taster-pack ✨



The theme this year for British Science Week is 'Time!' It's the 30th anniversary of British Science Week – we want you to celebrate this huge milestone with us, thinking about time since the Week began, and looking to the future!

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

- Ask children to design a poster based on this year's theme and enter it into our poster competition for the chance to win some fabulous prizes! Some of the activities in this pack can provide inspiration too, simply look out for the activities marked with the paintbrush symbol shown above!



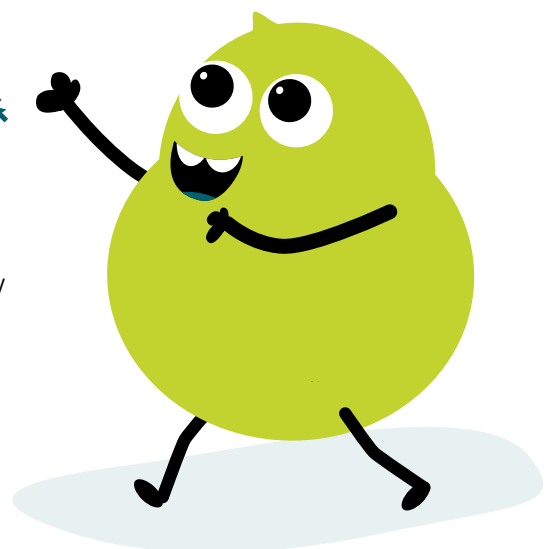
You can find more information about how to enter on [page 12](#) and at britishscienceweek.org/plan-your-activities/poster-competition.

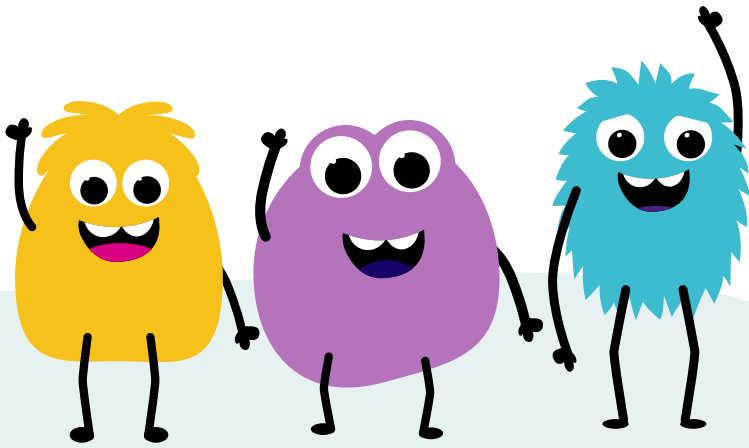
- Get children talking about what time means to them. How do they tell the time, and how does it differ from the way their parents or grandparents told the time? What about things that go very fast (the fastest animals, ways of travelling) or very slow (plants growing, building cities and large structures)?

Invite a special guest or someone from the school community to share with children their own experience of time. Are there any watchmakers local to you, or clock towers to visit? Maybe a photographer could talk about capturing 'moments in time'? See [page 5](#) for information on how to get volunteers.

Here are some other ideas to include at the beginning of British Science Week:

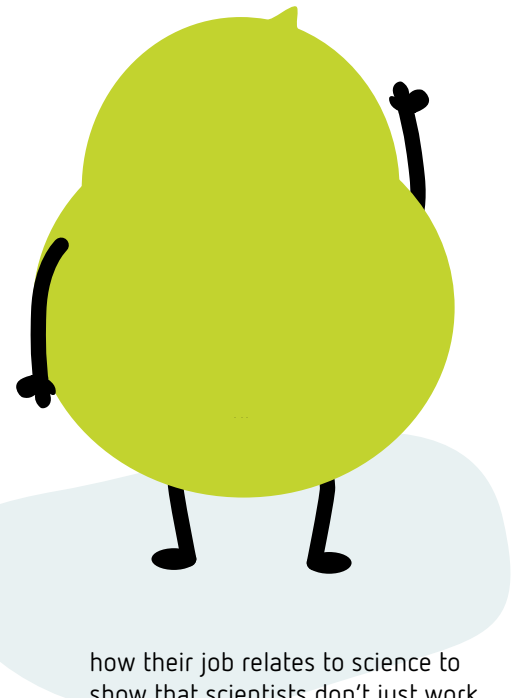
- Tell children about the plan for the Week and give them a challenge related to the theme. If you are sending home an experiment, maybe you could introduce or demonstrate it first.
- Time affects every part of our lives. Has 'time' as a theme been in the news recently, or do you have an example from the local area? Are there any historic sites you can talk about, and through which you can explore previous eras?





MAKING THE MOST OF VOLUNTEERS

Face-to-face engagement is a great way to get children involved and excited about a volunteer speaker and their topic, but don't forget that there are also opportunities to get volunteers and presenters to engage with children online.



STEM Ambassadors are volunteers who offer their time and enthusiasm to help bring STEM subjects to life, and to demonstrate their value to young people. It is now possible to request both in-person and remote STEM Ambassador support, meaning that Ambassadors from across the UK can inspire young people wherever they are.

Find out more and make a request for STEM Ambassador support here: stem.org.uk/stem-ambassadors/find-a-stem-ambassador ✨.

You can also look for presenters and volunteers via Science Live (sciencelive.net ✨), or ask parents and carers if they work in STEM-related jobs to describe what they do in more detail. You could also:

- Schedule two or three different guests to talk about their jobs or science-related hobbies during the Week, if possible, to get children anticipating who the next guest will be and what they do. These sorts of experiences can inspire children to think about their future, they're never too young to explore their career options!
- Where available, involve volunteers / Ambassadors who challenge stereotypes the children might have absorbed and promote positive attitude towards science. For example, women engineers, people early on in their careers, and those in roles not typically linked to science but still involve it – such as chefs, tech start-ups, gardeners, sportspeople etc. Ask volunteer / Ambassadors to share

how their job relates to science to show that scientists don't just work in labs!

- Book your visitors early as many speakers get booked up during British Science Week. Have a clear idea of what you want them to do and communicate this ahead of time.

Volunteers come from a range of careers and experiences, from engineers, designers, and architects to scientists and technicians, so get children looking forward to inspirational career talks which broaden their choices and interests!

Visit the Inspiring the Future website (inspiringthefuture.org ✨) for some helpful ideas for using volunteers.

BRITISH SCIENCE WEEK AT HOME



Do you want to help children carry on participating in British Science Week at home? Here are our top tips for engaging parents and carers with the Week:

- **Make the most of parent newsletters**, the Parent-Teacher Association (PTA) and chat group and text messaging services, if you have them. Let parents and carers know what you have planned for British Science Week at least a month in advance, and how you'd like them to be involved.

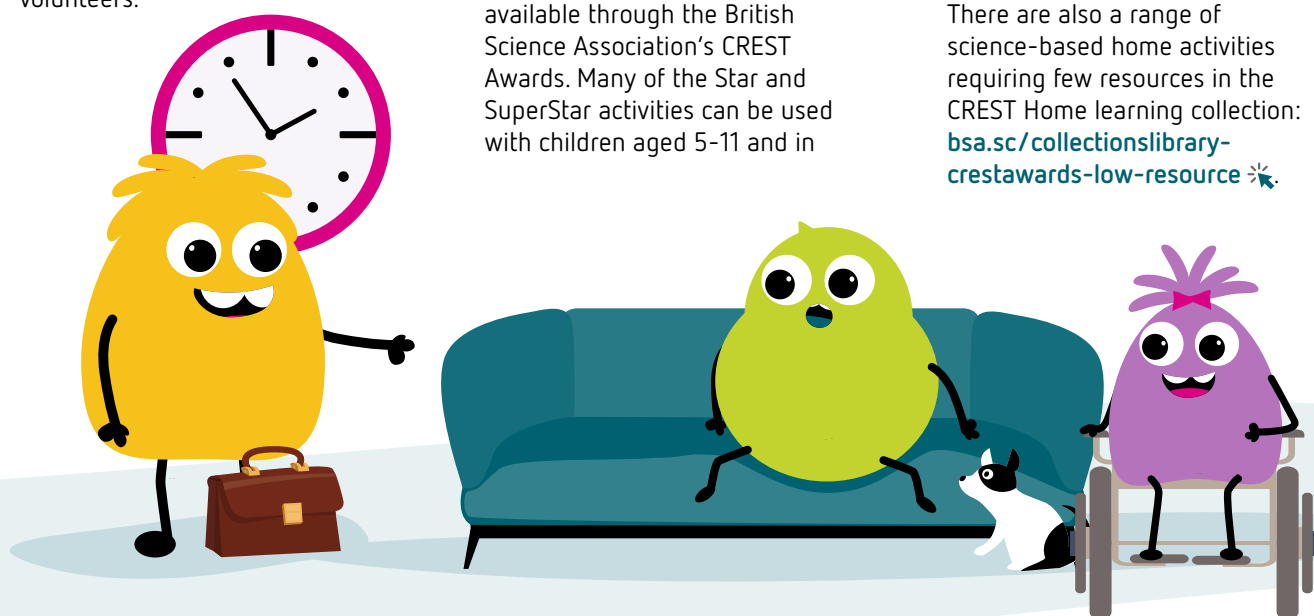
Ask them to collect or donate materials and tell them what they need to get involved in any experiments at home, so they have time to plan themselves. The PTA may be able to support you financially to run activities during the Week or help to drum up parent volunteers.

- **Ask parents and carers to think** about how their own jobs might link to STEM subjects and encourage them to chat with their children about this. You could do this via a newsletter or send children questions or activities they can do at home.
- **Encourage exploring outdoors**, in the community or in local cultural spots. This could be anything from going on a nature walk around local parks to spotting STEM in real life, street lighting engineers or infrastructure like bridges and construction work.
- **Check out the free resources** available through the British Science Association's CREST Awards. Many of the Star and SuperStar activities can be used with children aged 5-11 and in

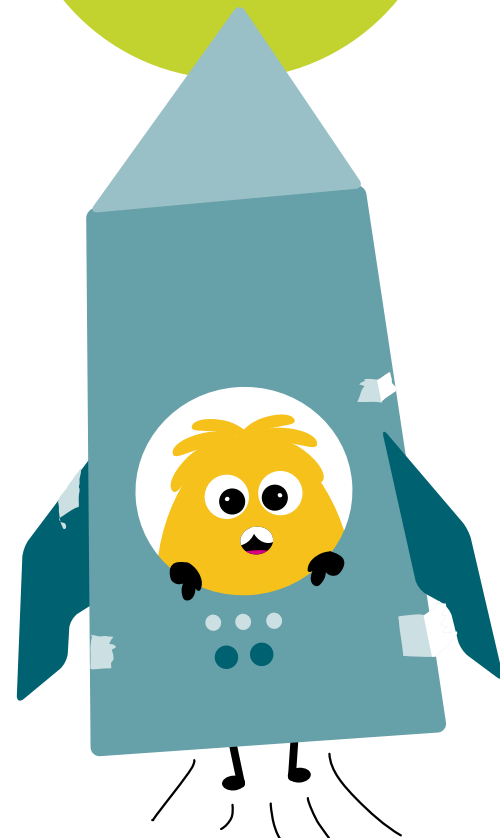
an outdoor setting. Check out the CREST Primary challenges collection: primarylibrary.crestawards.org ✨.

- **Send an experiment idea home** during the Week to spark discussions around science. Try to make it as low-resource as possible. It can help if it's something the children have tried or seen at school first so that they feel like the 'experts' when they do it at home with family, allowing them to lead the learning. Some of the activities in this pack have been adapted to be easily run at home, so they are a great place to start!

There are also a range of science-based home activities requiring few resources in the CREST Home learning collection: bsa.sc/collectionslibrary-crestawards-low-resource ✨.



GATHERING RESOURCES FOR THE CLASSROOM OR HOME

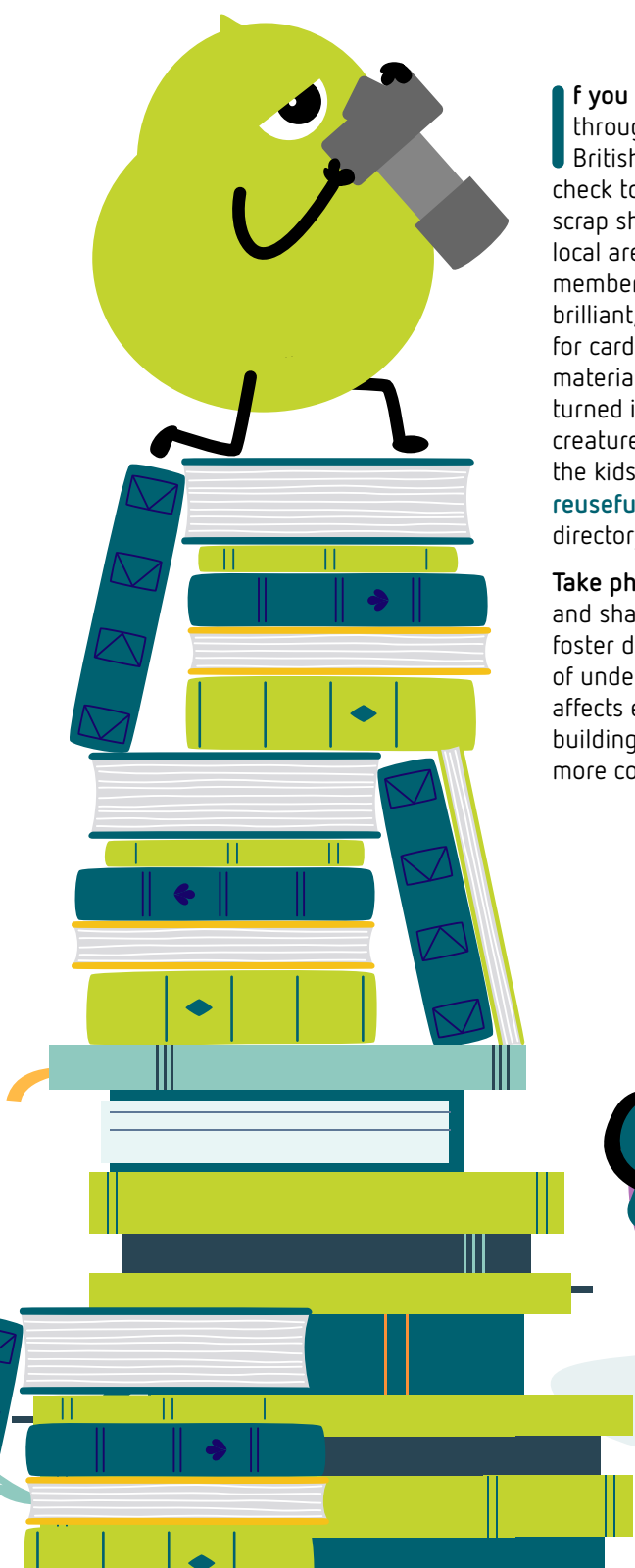


If you can, try to collect materials throughout the year for use during British Science Week. Alternatively, check to see whether there is a scrap shop/store/club open in your local area. These places are often membership-based and can be a brilliant, inexpensive or free resource for card, fabric, and other bits of material. Salvaged materials can be turned into spaceships, trees, sea creatures and more. You name it – the kids will think of it! Look at reusefuluk.org to find a UK directory of scrap stores.

Take photographs when out and about and share these with the children to foster discussion and raise their level of understanding about how time affects everything around us, in plants, building structures, and so on. The more colourful, the better!

The photos can be a reference point for future activities, for example you could gather photos of a certain type of technology, televisions perhaps, (using images from internet if you need to) and ask children try to put them in chronological order of when they were invented.

Collect story books and reference books around the theme of time to create a themed library.



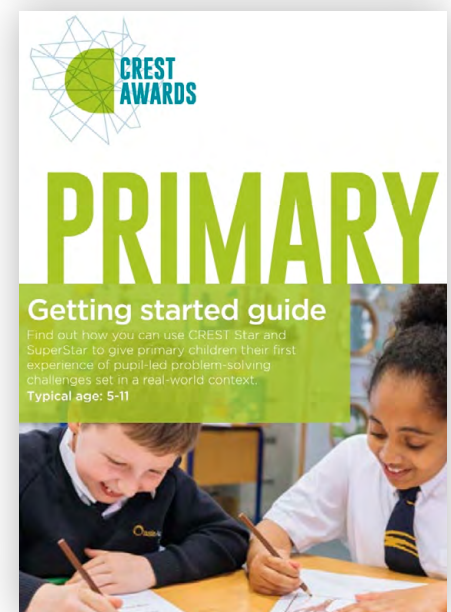
BEYOND THE WEEK

Exploration and curiosity don't have to end once British Science Week is over!

Some of the following ideas could help you to expand the learning beyond the Week:

Have children take part in a CREST Award. CREST is a scheme that encourages young people to think and act like scientists and engineers. Children can complete eight activities to achieve a Star or SuperStar Award, which will see them receive a certificate and badge. Look out for the CREST logo to see which activities can be put towards a CREST Award. Older children could also work towards a higher-level CREST Award. Take a look at the different primary CREST challenges here: primarylibrary.crestawards.org

- ▶ If you have the opportunity, consider running a STEM club or curiosity lab. You can find supporting resources at stem.org.uk/secondary/enrichment/stem-clubs
- ▶ Find ways to link time into other subjects. In history, you could explore how our understanding of science and the world has changed over time. In PE, you could think about the speed of athletes and how time is important in other aspects, such as reaction times. In geography, you could talk about seasons and the weather.



UNLOCKING SKILLS



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



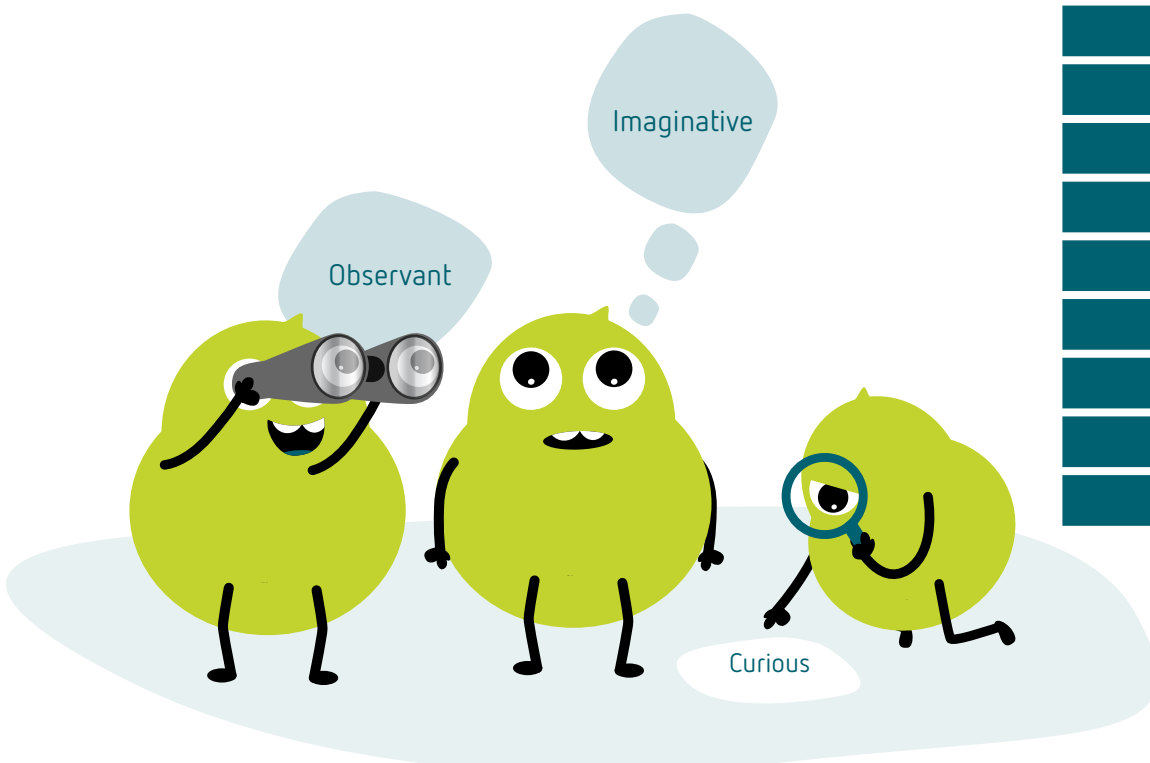
These skills will strengthen positive attitudes and reduce stereotypes of those working in the field.

You could, for example, use the **STEM Person of the Week** ✨ activity from NUSTEM at Northumbria University or introduce a scientist from the British Science Association's **Smashing Stereotypes** ✨ campaign. Ask children

to identify what characteristics people working in STEM need. These might include being observant, creative, patient, good at communication, or curious. Look out for the skills unlocked tags for each activity in this pack.

The table opposite has a complete list of attributes developed by NUSTEM to use as a talking point or to share with other teachers.

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

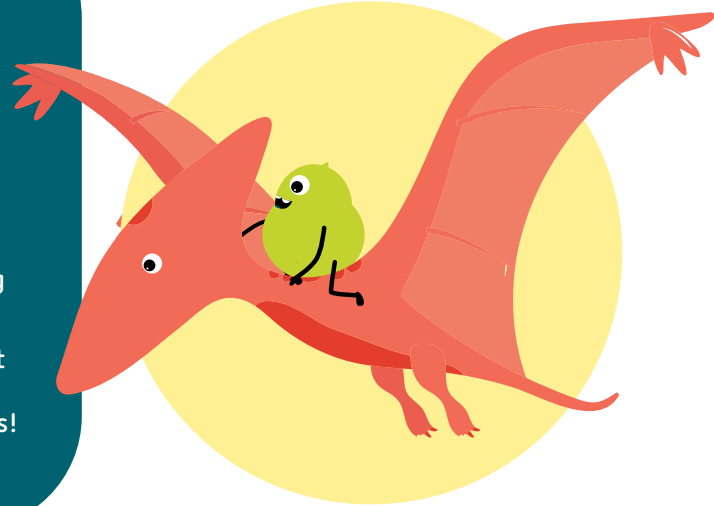


DISAPPEARING DINOS

This activity is designed to get you researching and debating the extinction of the dinosaurs.

A long time ago, dinosaurs roamed our planet, but they don't exist anymore. Over time, other animals evolved who might have not been able to live alongside dinosaurs – like humans!

🕒 45 minutes



📋 Kit list

Access to the internet and/or books

Pen and paper



📄 Instructions

- 1 You will be researching the extinction of dinosaurs and planning a class debate.
- 2 Before you look on the internet or in books, discuss your ideas about what might have happened to the dinosaurs all that time ago. This is how scientific theories come about.
- 3 Conduct your investigation using the resources you have and record your results. Remember, you'll need evidence to back up a scientific theory.
- 4 Present your findings to your group – be as creative as you like. You could use diagrams, a presentation, or create a booklet. You might find your classmates have other ideas about what could have happened!

⚠️ Watch out

There is lots of information on the internet, and unfortunately not all of it is accurate! Make sure an adult supervises you while you look online, and only use verified websites.

➡️ Next steps

This activity is one of the CREST SuperStar challenges. Why not try some of the other activities with your children? You can find out more and download all the resources you need here: bsa.sc/CREST-SuperStar-Challenges ✨

If you are an adult wanting to run CREST Awards with your pupils, visit crestawards.org ✨ for advice on how to get started.

🏠 At home

If you're interested in dinosaurs and how they became extinct, you could visit a museum and see some dinosaur fossils!

🔒 Skills unlocked

Open-minded, clear communicator

↔️ Career options

- Palaeontologists study dinosaurs and other ancient life.
- Archaeologists also study ancient life and dig up fossils, but they focus on humans.
- Museum curators put together exhibitions on dinosaurs.
- Historians research and investigate things that happened a long time ago.

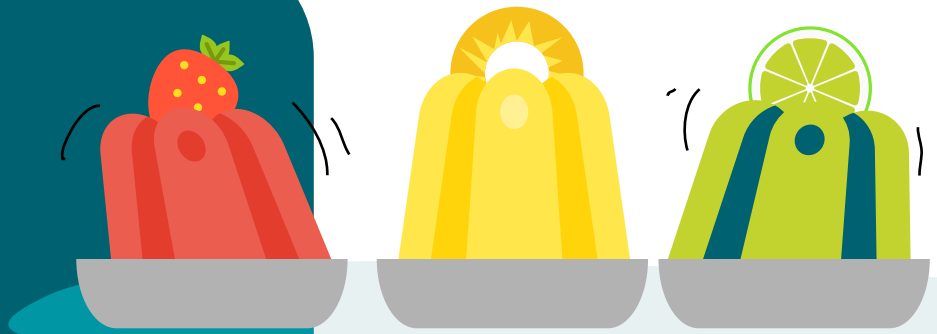


GET SET JELLIES

This activity is designed to get you making and testing jelly recipes.

Jelly sets over time, but can different methods for preparing it can slow that process down? Try out delicious fruits in your mixture to find out!

🕒 45 minutes



🛒 Kit list

Jelly
(any flavour will do)

Kettle and water

Spoons

Measuring jugs

Little dishes to
put the jelly in

Pineapple –
fresh and tinned

Other types of fruit
(optional)

📄 Instructions

- 1 Get all the equipment ready – you'll be making different jelly recipes!
- 2 Make sure you make the jelly according to the instructions (with the help of an adult). You should focus on adding different fruits, not changing the recipe for the jelly itself.
- 3 Time your different jellies to see how long it takes them to set. Do different fruits slow down the process, or even stop the jelly from setting all together?
- 4 Ensure you make one jelly that has no fruit in it, to compare to the jellies with fruit – scientists call this a control.
- 5 Design a way to record your results.
- 6 Present your findings to your group – be as creative as you like. Then enjoy the delicious results!

⚠️ Watch out

For different reasons, some children might not eat gelatine – an animal product used in most jellies. Make sure to use a vegetarian option if needed.

Making jelly requires very hot water – always have adult supervision.

Do not carry hot jelly around until it has set.

➡️ Next steps

This activity is one of the CREST SuperStar challenges. Why not try some of the other activities with your children? You can find out more and download all the resources you need here: bsa.sc/CREST-SuperStar-Challenges ✨

If you are an adult wanting to run CREST Awards with your pupils, visit crestawards.org ✨ for advice on how to get started.

🏠 At home

You can carry on the jelly experiment at home! Try using different sized and shaped bowls and if this changes the time jelly takes to set.

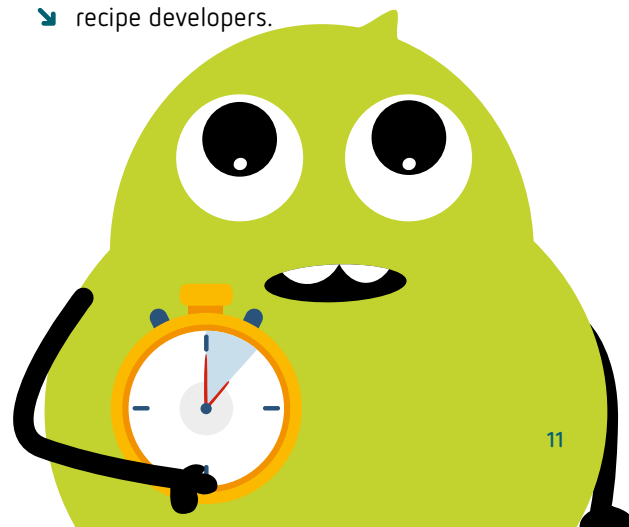
🔍 Skills unlocked

Observant, curious

↔️ Career options

Timing is very important for all cooking – not just jelly! Understanding how long food takes to cook or set depending on the ingredients used is a skill used by:

- chefs
- bakers
- recipe developers.



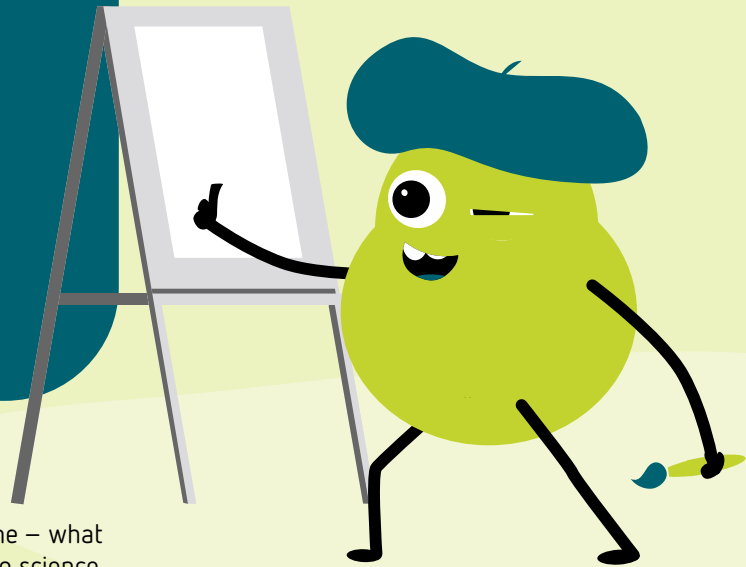


POSTER COMPETITION

Children can get creative and enter the British Science Week annual, UK-wide poster competition! To enter, they simply need to create a poster which fits in with the theme of 'Time'.

Schools then select the 5 best creations and submit them for a chance of winning an array of prizes. You can use the activities in this pack for inspiration!

🕒 2+ hours



📋 Kit list

Paper (A4 or A3)

Creative materials
such as:

pens
pencils
scissors
glue
watercolours
paint
crayons
pipe
cleaners
felt
thread
wool
foil
clay
string
beads
stamps
foam
pompoms

📄 Instructions

Encourage children to think about time – what it means to them and how it relates to science they've learnt about – to come up with ideas to include in their poster. Here are some points and questions to get you going:

- Get children to think about their own time – how do they spend it? At home, out playing in the park, arts and crafts, learning at school?
- What about time in the world, and beyond? How do we measure time – seconds, days, seasons, centuries? What about time in space?
- Are there any scientists they know of whose work relates to time? What about time travel in films, TV and music?

🎨 Make your poster

Once they've done their thinking, it's time for children to get creative! Posters must be A4 or A3 in size and you'll need to be able to take a photograph of each one so it can be sent to us online for judging. Children can use pop-up pictures, pull out tabs or use materials such as pencils, paints, crayons and paper to create their posters.

📬 Send us your poster

Posters will be judged on creativity, how well they fit the theme, how well they have been made or drawn, and how engaging they are. Once a child's poster is complete, take a photo of it and complete the online form to submit it as an entry.

➤ Next steps

Celebrate! For more details, along with the full set of poster competition rules and tips, check out our website: britishscienceweek.org/plan-your-activities/poster-competition ✨



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