



Engage Teacher Network

CREST SuperStar Kit Box Launch session

November 2024

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In partnership with





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Housekeeping

- Thank you for your valuable time – this online session will last no more than 45 minutes.
- Please switch your cameras on if you're happy and able to. There will be a chance to ask questions towards the end of the session, or feel free to leave any comments and queries in the chat.





What we'll cover in today's session

- Timeline for the academic year
- Project aims
- An introduction to your kit box – what are the CREST activities, equipment and printed resources included?
- An introduction to the supporting webpage and online resources available to help you
- Any questions?





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Timeline for this academic year

Autumn Term 1, 2024 – Kit boxes delivered

Autumn Term 2, 2024 – Welcome and launch webinar

Spring Term 1 2025 – Drop-in support webinar

Spring Term 2 2025 – Drop-in support webinar

Summer Term 1 2025 – Drop-in support webinar

Summer Term 2 2025 – Post-activity evaluation (pupil and educator surveys)





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CREST SuperStar kit boxes - aims

- Participation and inclusion for all children (not just an enrichment activity!)
- Children given the opportunity to complete **at least 6 projects**, allowing them to gain their CREST Award and certificate
- Family involvement
- Use of the supporting resources (webpage, demo videos, PPT slides, drop-in webinar sessions)
- Evaluation, to capture successes and highlight areas for development
- Resources can be shared with colleagues and re-used next year!



Introducing the CREST SuperStar Kit Box

For primary pupils aged 7-11, or those working at this level

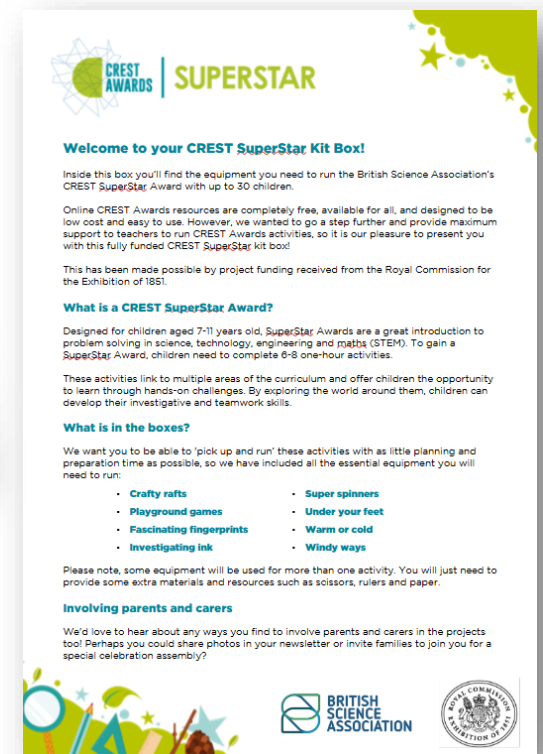




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You kit box contains a white folder of printed resources:

- a welcome letter
- activity and organiser cards
- CREST passports
- CREST stickers
- CREST certificates
- CREST SuperStar iron-on badges



The 8 CREST activities

Crafty Rafts

Organiser's Card

About the activity

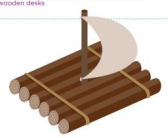
This activity is designed to get children designing and making a raft that floats. The children have been asked to design a raft. The Cub Scouts and Brownies of Starstone are having a problem making a raft that floats.

Through this activity you will support your group to:

- Design and make a model raft using just a piece of paper
- Conduct a fair test to see which raft design can hold the most weight
- Record and present their results.

Kit list

- Plastic tanks or bowls of water - 1 per group
- A square sheet of paper (20 cm x 20 cm) or A4 - 6 per group plus spare sheets
- Put (optional as an alternative to paper)
- A set of marbles all the same size - 30 per group plus lots of spares
- Sellotape, masking tape, staples, or other fasteners - provide the same for each group
- Waterproof coverings if you are working on wooden desks



Fantastic Fingerprints

Organiser's Card

About the activity

This activity is designed to get children thinking about fingerprints. The investigators have been given a news article about fingerprints. Teachers at Starstone Primary School are wondering if they can use fingerprints to identify the students. Are the students' fingerprints that different?

Through this activity you will support your group to:


- Collect their fingerprints
- Compare different fingerprints and identify patterns
- Record and present their results

Kit list

- Dust (flour, chalk, talc, cocoa powder)
- Soft pencils
- Blank paper (white paper for pencil and cocoa prints; black paper for white powder prints)
- Other things to investigate e.g. oil or cream (leave a print on DFT film or plastic; non-permanent markers etc)
- Sellotape
- Scissors
- Hand lenses or magnifying glasses

What to do

- Introduce the activity using the news article. Ask them if they have taken a fingerprint before.
- Draw children's attention to the different patterns found in fingerprints (loops, arches and whorls).



Investigating Ink

Organiser's Card

About the activity


This activity is designed to get children thinking about how to identify different inks using chromatography. Lady Felicity Felme's prize winning Cocker Spaniel has been dog napped and a note has been sent asking for a ransom. Can the investigators work out which one of the four suspects wrote the note based on the type of ink used?

Through this activity you will support your group to:

- Experiment with different ink pens using chromatography
- Design an experiment to help them identify the pen used to write a note
- Share their conclusion and present evidence to support it.

Kit list

- Absorbent paper e.g. blotting paper, white filter paper, white coffee filters
- Four pens (not ballpoint) with black water-soluble ink inside, labelled with the suspects' names
- Additional pen or black ink for the initial exploration - you must check that the colour separates
- Random note (written using one of the pens prior to the activity). Don't worry if it spreads a bit.
- Beakers or pots
- Scissors
- Extra non-permanent marker pens in various colours
- Plain paper for wanted posters



Playground Games

Organiser's Card

About the activity


This activity is designed to get children thinking about disabilities and creating games that are accessible and inclusive. Comic and Gem's friend Lyla has limited vision, but would like to join in on their games. Can the investigators find some accessible games?

Through this activity you will support your group to:

- Learn about the effects of limited vision.
- Design games taking into account the needs of different players.
- Evaluate their games.

Kit list

- Games equipment such as bean bags, balls, cones, poles etc.
- Balls and other noise makers
- Torches and other lights
- Ear plugs
- Low vision simulators (there is a template you can use following the Activity Card).



Super Spinners

Organiser's Card

About the activity

This activity is designed to get the children thinking about helicopter blades, and how different blade sizes change the way a paper spinner falls. Mr Spynstone arrived for work in a helicopter, amazing the students. He's testing which helicopter is best. Can the students help to find out if a larger blade design will make a difference?


Through this activity you will support your group to:

- Think about what makes paper fall in different ways
- Test whether a paper spinner will fall in different ways with different blade sizes
- Share their ideas with the group

Kit list

To make the spinners they will need:

- A4 Paper
- 30 cm ruler
- Metre ruler
- Paperclips or Blu-Tack
- Scissors
- 1 ready-made spinner to show the children how they work
- Large and small templates for spinners (if you think children will need them) - see following page
- Stopwatches
- Other types of paper and card



Under Your Feet

Organiser's Card

About the activity


This activity is designed to get children thinking creatively about nature. Stella Storyteller is struggling for inspiration for her latest storybook. It's the story of two special children who wake up one morning and find themselves the size of ants. Can the children help to find a challenge for the trapped duo?

Through this activity you will support your group to:

- Think about the world around them from a different perspective
- Investigate and explore what living things they can find outdoors
- Record their thoughts and ideas and present them to share with the group

Kit list

- Cut out 'feet' for children to record their results on - you might want to provide a template
- Children's feet are usually too small
- Cut out 'toes' for children to place on the ground and look through
- Hand held magnifiers
- Identification charts or books
- Drawing materials - this coloured markers or pencils etc.
- Digital camera (optional)



Warm or Cold

Organiser's Card

About the activity

This activity is designed to get children thinking about warm and cold-blooded creatures. Dina Diggs needs some help working out whether dinosaurs were cold-blooded or not. Can the children work it out by doing some tests?

Through this activity you will support your group to:

- Explore whether dinosaurs were warm or cold-blooded
- Investigate the difference size makes to how quickly things cool down.
- Complete a grid to compare warm and cold-blooded theories.
- Design a dinosaur fact sheet.


Kit list

To test temperature change of water in different sized bottles they will need:

- Different sized plastic bottles with lids
- Measuring jugs
- Warm water
- Thermometer and stop watch or data logger

What to do

- Read the ACTIVITY CARD to familiarise yourself with the activity.
- Check the kit list and ensure you have the correct resources.
- Set the scene by discussing the story with the children.
- Help children gather the resources.
- Encourage children to talk together about their ideas and carry out their own investigations.
- Discuss the differences between warm-blooded and cold-blooded animals.
- Encourage children to read scientists' arguments for and against dinosaurs being cold-blooded.
- Help children to recognise that more tests may be needed to reach a firm conclusion.



Windy Ways

Organiser's Card

About the activity

This activity is designed to get children thinking about wind patterns and directions. Bubbles provide an interesting and engaging way for children to investigate wind speed and direction. They can make simple measurements of the time it takes for bubbles to travel a set distance to get wind speed, and can plot the movement of bubbles to get the wind direction. The children are asked to read a news article. Starstone Primary School has been invited by an organisation called OPAL to take part in an exciting new weather survey. It has asked the school to see if they can find out about the wind using bubbles! Can they help?

Through this activity you will support your group to:


- Think about how the wind behaves
- Investigate wind speed and direction using bubbles
- Record and present their results to the group

Kit list

- Bubble blowers and solution
- Pens or pencils
- Paper
- Compasses
- Timers
- Measuring tapes or sticks

What to do

- Introduce the activity using the story. Set the scene by discussing the weather and how it is measured and get the children to think about their own experiences of things blowing in the wind (balloons, dandelion seeds etc).
- Give out activity cards and equipment to the children. Let them practice blowing bubbles.
- Explain that they will be trying to measure wind direction and the speed that the bubbles travel.
- Encourage children to discuss their ideas and how they will use the resources to carry out their investigations.
- Support children to conduct their investigation and make their own records of their results. Go outside to carry out the investigation. Make sure groups are not too close together.
- Ask the children to present their findings to the rest of the group. They can be as creative in their presentation as they want. They could record their findings by making a chart or presentation.





Crafty Rafts

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get children designing and making a raft that floats!

- Small inflatable pool
- Foil
- Marbles



Fantastic Fingerprints

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get children thinking about fingerprints.

- Cocoa powder
- Soft pencils
- Magnifiers



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Fantastic Fingerprints

About the activity

This activity is designed to get children thinking about fingerprints. The investigators have been given a news article about fingerprints. Teachers at Startown Primary School are wondering if they can use fingerprints to identify the students. Are the students' fingerprints that different?

Through this activity you will support your group to:

- Collect their fingerprints
- Compare different fingerprints and identify patterns
- Record and present their results

Kit list

- Dust (flour, chalk, talc, cocoa powder)
- Soft pencils
- Blank paper (white paper for pencil and cocoa prints, black paper for white powder prints)
- Other things to investigate e.g. oil or cream (leaves a print on OHT film or plastic), non-permanent markers etc.
- Sellotape
- Scissors
- Hand lenses or magnifying

What to do

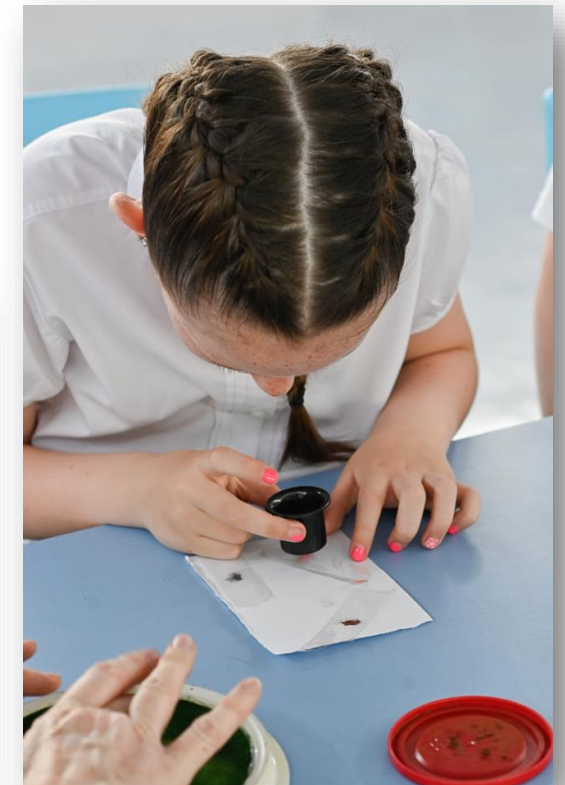
1. Introduce the activity using the news article. Ask them if they have taken a fingerprint before.
2. Give out activity cards and equipment to the children.
3. Explain that they will be investigating fingerprints today. Give children time to talk about what they know about fingerprints. Let them look at their own fingerprints with hand lenses or microscopes.
4. Demonstrate how to take a fingerprint.
5. Support the children to design and carry out a test and to make their own records of their results. Draw children's all different patterns found in (loops, arches and whorls).
6. Ask the children to present the rest of the group, they in their presentation as the could be projected for the The children could try to a belongs to which person. images of their fingerprint

Your challenge

Find out if everyone's fingerprints really are different.

Discuss

How do you think fingerprints are collected?
Look at your fingerprints with a hand lens or microscope.
What do your own fingerprints look like? Are they the same as your partner's prints?



Investigating Ink

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get children thinking about how to identify different inks using chromatography.



- Water-soluble black ink pens
- Filter paper
- Measuring beakers



Playground Games

Can be run in groups or with a whole class (groups of 10)



This activity is designed to get children thinking about disabilities and creating games that are accessible and inclusive.

- Torches
- Ear plugs
- Bells
- Horns
- Blindfolds
- Glasses template

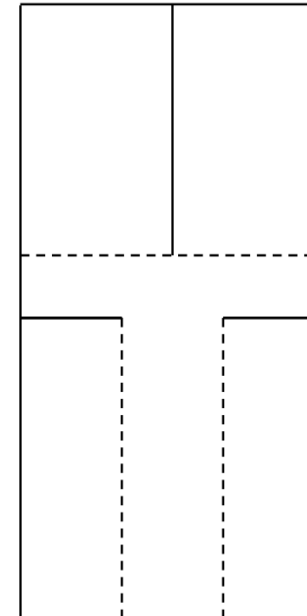


Super Spinners

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get the children thinking about helicopter blades, and how different blade sizes change the way a paper spinner falls.

- Super Spinners template
- Timers

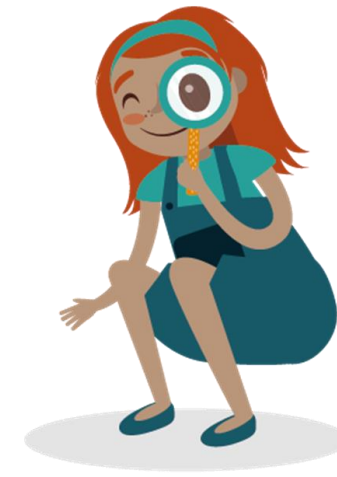


Under Your Feet

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get the children thinking creatively about nature.

- Magnifiers (from Fantastic Fingerprints)



Warm or Cold

Can be run in small groups or with a whole class (groups of 2 or 3)

This activity is designed to get children thinking about warm and cold-blooded creatures.

- Different sized plastic bottles with lids
- Measuring beakers (from Investigating Ink)
- Thermometer
- Timers (from Super Spinners)



Warm or Cold

Organiser's Card

About the activity

This activity is designed to get children thinking about warm and cold-blooded creatures. Dina Digg needs some help working out whether dinosaurs were cold-blooded or not. Can't children work it out by doing some tests?

Through this activity you will support your group to:

- Explore whether dinosaurs were warm or cold-blooded.
- Investigate the difference size makes to how quickly things cool down.
- Complete a grid to compare warm and cold-blooded theories.
- Design a dinosaur fact sheet.

Kit list

To test temperature change of water in different sized bottles they will need:

- Different sized plastic bottles with lids
- Measuring jugs
- Warm water
- Thermometer and stop watch or data logger

What to do

1. Read the ACTIVITY CARD to familiarise yourself with the activity
2. Check the kit list and ensure you have the correct resources.
3. Set the scene by discussing the story with the children.
4. Help children gather the resources.
5. Encourage children to talk together about their ideas and carry out their own investigations.
6. Discuss the differences between warm and cold-blooded animals.
7. Encourage children to read scientific arguments for and against dinosaur cold-blooded.
8. Help children to recognise that more than one idea may be needed to reach a firm conclusion.



Warm or Cold

Activity Card

No one has ever seen a live dinosaur but scientists know a lot about them.

Some ate meat, some only plants. They laid eggs. Dinosaurs lived between 230 and 65 million years ago. They lived on dry land.

Scientists have worked out all these dinosaur facts from looking at fossils.

But one dinosaur fact is still puzzling Dina Digg.

For many years scientists believed dinosaurs were cold-blooded animals, like modern reptiles, rather than warm-blooded like birds and mammals.

Now they are not so sure.

Cold-blooded reptiles like crocodiles and lizards need to lie in the sun to warm up. Warm-blooded animals do not have to do this.

Time to become a dino detective ...

Cold-blooded animals get warm by lying in the sun. The size of an animal's body makes a difference to how quickly it cools down again. Many dinosaurs were very big. If dinosaurs were cold-blooded, would being big be a problem? Or would being big be helpful? Do big things cool down faster or slower than smaller ones?


Your challenge

Help Dina Digg to explore if size matters.

Discuss

You can't get a real dinosaur but you can use large and small plastic bottles to make model dinosaurs. If you fill the bottles with warm water you can see how long they take to cool down. What will you measure in your test? How will you record your results?





Getting started

You could start by looking at how quickly water cools in different size bottles:

To do the tests you will need:

- Different sized plastic bottles with lids
- Measuring jugs
- Warm water
- Thermometer and stop watch or data logger

You might want to use a table like this one:

Volume of bottle	Temperature at the start	Temperature after 7 minutes	Temperature after 7 minutes	Temperature after 7 minutes

You may want to record your findings in a table like this:

	Evidence	Evidence	Evidence	Need to know more about
1	Birds could have descended from dinosaurs.	Birds are warm-blooded. This could mean that dinosaurs were warm-blooded.	Dinosaurs were descended from reptiles. Reptiles are cold-blooded.	Could there have been both warm-blooded and cold-blooded dinosaurs?
2	The climate was warmer.	Plenty of sunlight would have kept cold-blooded animals warm up, so they could have been cold-blooded.	It wasn't warm everywhere on Earth.	
3	Dinosaurs were very big.	Big things cool down.	Not all dinosaurs were big.	
4	Dinosaurs had scales.	Animals with scales, such as lizards and snakes, that dinosaurs are...	Some dinosaurs had feathers. Animals with feathers are...	
5	Anything else you can think of?			If an animal has a layer on the outside like feathers or fur, it gets warm by lying in the sun. Try to investigate this.

Can you find other scientific evidence to help you decide if dinosaurs were cold-blooded or not?



Windy Ways

Can be run in small groups or with a whole class (groups of 3)

This activity is designed to get children thinking about wind patterns and directions. Bubbles provide an interesting and engaging way for children to investigate wind speed and direction.

- Timers (from Super Spinners)
- Bubble wands
- Bubble solution
- Compasses



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Windy Ways

Organiser's Card

About the activity

This activity is designed to get children thinking about wind patterns and directions. Bubbles provide an interesting and engaging way for children to investigate wind speed and direction. They can make simple measurements of the time it takes for bubbles to travel a set distance to get wind speed, and can plot the movement of bubbles to get the wind direction.

The children are asked to read a news article: Startown Primary School has been invited by an organisation called OPAL to take part in an exciting new weather survey. It has asked the school to see if they can find out about the wind using bubbles! Can they help?

Through this activity you will support your group to:

- Think about how the wind behaves
- Investigate wind speed and direction using bubbles
- Record and present their results to the group

Kit list

- Bubble blowers and solution
- Pens or pencils
- Paper
- Compasses
- Timers
- Measuring tapes or sticks

What to do

1. Introduce the activity using the story. Set the scene by discussing the weather and how it is measured and get the children to think about their own experiences of things blowing in the wind (balloons, dandelion seeds etc).
2. Give out activity cards and equipment to the children. Let them practice blowing bubbles.
3. Explain that they will be trying to measure wind direction and the speed that the bubbles travel.
4. Encourage children to discuss their ideas and how they will use the resources to carry out their investigations.
5. Support children to conduct their own investigations and make their own records of the results. Encourage them to think about how the groups are not too close together.
6. Ask the children to present their findings to the rest of the group, they can be creative in their presentation as if they could record their findings in a chart or presentation.

Your challenge 🏆

Can you help the children of Startown Primary find out how to use bubbles to show how the wind moves?

Discuss 💬

What happens to the bubbles when the wind blows?

How could you use bubbles to help you learn about the wind?

Activity Card

NEWS

Bubbles in the wind

Startown Primary School has been invited by an organisation called OPAL to take part in an exciting new weather survey. It has asked the school to see if they can find out about the wind using bubbles!

Startown Primary School has been invited by an organisation called OPAL to take part in an exciting new weather survey. It has asked the school to see if they can find out about the wind using bubbles!

Startown Primary School has been invited by an organisation called OPAL to take part in an exciting new weather survey. It has asked the school to see if they can find out about the wind using bubbles!

Supporting resources

- Dedicated CREST SuperStar kit box webpage with links, ideas and FAQs


<https://www.crestawards.org/kit-box/superstar>

- Demo videos for each activity showing you how to set up the equipment and run the activities
- Digital versions of the resources so you can print additional copies



Supporting webpage

<https://www.crestawards.org/kit-box/superstar>



[Sign in](#) [Resource library](#) [Help centre](#) [FAQs](#)
[What is CREST?](#) [Why CREST?](#) [Which level?](#) [Fees and funding](#) [CREST supporters](#) [Engage community](#)

Search

CREST SuperStar kit boxes

You have been directed to this page because you are a recipient of a support to teachers to run CREST Award activities by including all the

This support page includes digital copies of your resources, additional

We thank our generous funders The Horners' Education Charity and a free CREST kit box to your school.

Digital copies of the printed resources in your kit box

For displaying on your screen or for printing additional copies:

[Welcome letter](#)


[SuperStar passport](#)

[Activity cards and organiser's cards](#) for all the a


Additional certificates can be ordered on the [CREST](#) kit box.

✓ Your kit box activities:


CREST Activity video demonstrations




Crafty rafts




Playground games




Fantastic fingerprints




Investigating ink




Super spinners



Under your feet



Warm or cold



Windy ways

crestawards.org

Involving parents and carers



- You could share photos of the children taking part in the activities in your newsletter, or on a photo sharing platform if you use one.
- You might like to invite parents and carers into your setting to support running the activities, or to see the investigations in action.
- Why not send some of the activities or follow-on tasks home, for families to try together.
- You could invite parents and carers to a special celebration assembly to watch the children receive their CREST certificates.



Ordering additional CREST certificates

Once your pupils have completed **at least 6 of the activities**, they can receive their CREST Award certificate!



- Your kit box contains enough CREST SuperStar certificates for a class of 30 but we know that some settings with larger cohorts may require extra copies.
- These can be ordered from our online platform which is linked on the SuperStar kit box webpage.



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What next?

- We will share this presentation, so you have a record of the kit box overview
- We will be in touch with the dates of the Spring and Summer support webinars, but please feel free to get in touch with any queries in the meantime:

crest@britishscienceassociation.org



Thank you so much for your time!



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Any questions?



 crestawards.org

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