



PRIMARY

Getting started guide

Find out how you can use CREST Star and SuperStar to give primary children their first experience of pupil-led problem-solving challenges set in a real-world context.

Typical age: 5-11



THE CREST FRAMEWORK

CREST STAR AND SUPERSTAR are aimed at primary school students aged 5-to-11 years. Students solve eight one-hour science, technology, engineering, and maths challenges through practical investigation.

CREST DISCOVERY is a great first introduction to project work and can be done in one day; typically undertaken by 10-to-14 year-olds.

CREST BRONZE allows students to experience the project process; improving their enquiry, problem solving and communication skills. Typically completed by 11-to-14 year-olds.

CREST SILVER allows students to develop their own project idea and gain experience of the scientific process. Typically completed by 13-to-16 years.

CREST GOLD can be used to enhance UCAS personal statements and is well regarded by employers. Typically completed by 16-to-19 year-olds.

CONTENTS

-
- 4 What is CREST?
 - 5 What are CREST Star and SuperStar?
 - 6 CREST Star and SuperStar objectives
 - 8 How it works
 - 10 Resource library
 - 13 Example activities
 - 16 Impact of CREST
 - 18 Looking forward to Discovery
-

WHAT IS CREST?

CREST is a scheme that inspires young people to think and behave like scientists and engineers.

Student-led

It is the UK's only nationally recognised scheme for student-led project work in STEM subjects (science, technology, engineering and maths).

Flexible

CREST gives young people aged 5–19 the chance to choose their own subject and methodology for their hands-on investigation.

Trusted

A consistent, high standard of assessment and moderation is achieved for the scheme via our network of industry experts from the STEM and education sectors. It has been running since 1986 with tens of thousands of young people taking part each year.

Accessible

CREST provides activities and project ideas for a range of ages, group sizes and abilities. From off-the-shelf, one-hour long challenges through to large-scale, student-led projects of over 70 hours of work or more, CREST can be done by anyone.

WHAT ARE CREST STAR AND SUPERSTAR?

CREST Star and SuperStar introduce children to investigative learning. They support pupils to solve real-life STEM challenges through practical investigation and discussion.

Using our colourful and exciting characters, we draw children into the world of STEM discovery and help them identify science in their own lives.

Star:

England and Wales: Equivalent to KS2, 1st level
Scotland: P2, P3 & P4
Northern Ireland: KS1
International: IB Primary Years Programme

SuperStar:

England and Wales: Upper KS2 towards KS3
Scotland: P5, P6, & P7
Northern Ireland: KS2
International: IB Middle Years Programme



Cost	£1 per student
Student time required	8 x 1-hour activities The activities can be delivered all together or spread out over a term or more. They can be used to connect with topics across the science curriculum and build your students' science literacy.
Assessment	You or another facilitator should assess the children as they work, marking their progress on their passports.
Upon completion	Reward their efforts with certificates and badges

CREST STAR AND SUPERSTAR OBJECTIVES

CREST projects contain the following elements:



Real-world context

Each challenge begins with a story that links to broader situations they might encounter.

Problem solving

Children explore a question or idea presented through a story. They are supported to think and talk about what the aim for their investigation is and different ways to approach it.

Independent working

Activities require young people to develop independent working skills, completing their challenge independently of adults - either on their own, in pairs or small groups.

Decision making

Children are given the opportunity to discuss and decide how they will carry out their investigation, with prompts and support from the story characters and their facilitator.

Practical science

Children complete 8 hands-on challenges and behave like a real scientist.

Reflective practice

Children discuss scientific problems and how to record results.

Reporting and communicating

Children think about and share how to test their ideas, and how to tell people what they did.



HOW IT WORKS

1

Sign up for a free CREST account

You can use this account to enter students, create projects, pay CREST entry fees and request certificates.
www.crestawards.org/sign-in

2

Choose your activities

Browse the activities on our CREST library, selecting eight you would like to run with your students.
<http://library.crestawards.org/>

Alternatively, you could arrange for an external education provider to run a project with your students. This could be at your school, or as part of an out-of-school visit. You can find more information about local providers on our website:
<https://crestawards.org/crest-accredited-resources-and-activities>

3

Run your activities

This is the fun part! Children take on the role of investigators and the teacher becomes the facilitator. Use the organiser card to help you set up the activity. Encourage your students to work together using the activity card with your support.

4

Record the activities

Students should record each activity they participate in with a sticker or drawing in their passport.

5

Assess your students' involvement

You or another educator should assess your students' involvement. If you feel they have sufficiently taken part then they will have achieved their CREST Award.

6

Certify your students

Log in to your CREST account, pay the entry fee and request certificates. These will be posted to your delivery address.



CREST RESOURCE LIBRARY

Choose eight challenges from the extensive range in our resource library. There are over 60 different activities available covering numerous curriculum areas.

You can mix and match challenges to fit the topics in your curriculum, the interests of your group or themes which relate to your local area.

Find our resources here:
<http://library.crestawards.org/>





STAR

Animal Adventure

Activity Card

Cosmic and Gem are sitting on the climbing frame. They are bored.

"Let's go on an animal safari!" shouts Gem, jumping down.

"OK," Cosmic replies. He starts to prowl around Gem while pretending to be a tiger.

"No, not a pretend safari," says Gem, "I mean a real animal adventure." Cosmic looks puzzled. He follows Gem round the playground. She looks high, she looks low but doesn't seem to be able to find what she is looking for.

"Uncle Astro said that there are little animals, called minibeasts, all around us," says Gem. "But I can't see any."

"Wow! You mean tiny lions and tigers and things?" asks Cosmic. "Come on, let's see if Uncle Astro can help us."

Where do you think Uncle Astro will tell them to look?

Your challenge

Go on an animal adventure and see how many animals you can find.



AN EXAMPLE STAR ACTIVITY: ANIMAL ADVENTURE

Star

Animal
Adventure

Get children exploring indoors and out, to find minibeasts and their habitats!

- Engage with animals and creatures in a real-world context
- Develop their practical science skills, using collecting jars and pooters
- Discuss terms such as 'animal', 'minibeast' and 'invertebrate'
- Make and communicate decisions about where animals and minibeasts might live

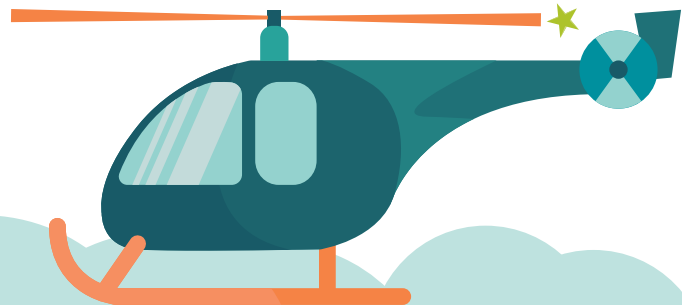
Every CREST SuperStar activity comes with a separate **Organiser Card** to help you plan your session. It includes tips on what equipment you might need, as well the time required to run it and what discussion points you could use with the children.





Super Spinners

Activity Card



Mr Sycamore, class 5 teacher at Startown Primary School, amazed pupils and staff when he arrived for work in a helicopter!

"It's a bit of a hobby really," said Mr Sycamore, "I'm flying a different one every day and then I'll buy the one I like the best. This helicopter has a short blade design, I wonder if the size of blade makes a difference? I'll need some Super Spinner test pilots to help me decide!"

Your challenge

Can you help Mr Sycamore decide if the size of the blades makes a difference?

Building full size helicopters is difficult but you can have fun making paper helicopter blades and watching how they fall.

Discuss

- What happens if you drop flat and scrunched up paper?
- What do you notice about the way that they fall?
- What might be making a difference to the way that they fall?

AN EXAMPLE SUPERSTAR ACTIVITY: SUPER SPINNERS

SuperStar

Super Spinners

Get children investigating flight as they make and test paper spinners with different blade sizes.

- Work independently to develop their own ideas
- Discuss their ideas on gravity and shapes
- Engage with practical science by testing their 'helicopters' to see how they fall
- Develop their communication skills by creating a poster about their results

Every CREST SuperStar activity comes with a separate Organiser Card to help you plan your session.

It includes tips on what equipment you might need, as well the time required to run it and what discussion points you could use with the children.



IMPACT OF CREST

Ali has been running CREST Star in her school since November 2017, incorporating various activities into her school's bi-annual STEM Weeks. She has chosen activities that allow her to link CREST with other subject areas, including D&T, English and Maths.

She believes that, "CREST challenges are so accessible, engaging and fun for children to do both at home and in the classroom", which is why many continue engaging with CREST activities at home with their parents.

According to Ali, her students have now taken the lead by choosing activities themselves to fit with their own interests. They even "recorded videos to communicate their results, created a storyboard using iPads and also created two displays and invited parents in to test their umbrellas".

Even though Ali is not a science teacher, she feels that CREST is "designed so that it can be delivered by educators without experience of STEM".

She urges educators not to feel discouraged or put off by the resources either as there's "clear plans which can be followed or simply used as a guide".



“

As a member of the Leadership Team, the CREST Awards also helped me to raise the overall profile of STEM learning within the whole school community with Governors being supportive of the idea of allowing so many children to access these prestigious awards.

CREST Teacher

”

LOOKING FORWARD TO DISCOVERY

Now that you and your students have completed Star and SuperStar, why not move onto CREST Discovery Award?

Discovery Awards are a great first introduction to project work and can be completed in a single day as they only take 5 hours. Your students will be challenged to work on their problem solving and use their skills to work in different team roles. They are typically undertaken by 10-to-14 year-olds.



OTHER GUIDES AVAILABLE



Run a CREST project in a day with your students!



Find out more about how to run CREST projects with students at Secondary level

Managed by:



Registered Charity No. 212479 and SC039236

Supported by:

