

In partnership with



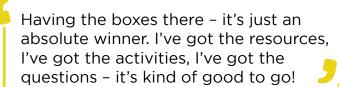
**ONCR** Foundation



Ready to go practical STEM activities for primary school children

## **Providing opportunities for primary** school pupils to engage in STEM

The British Science Association (BSA) wants young people from all backgrounds and abilities to access good quality practical STEM activities. This is an essential part of building their STEM skills, confidence and aspirations. But not all young people are given the opportunity to do high quality handson practical science investigations.



- Participating teacher



In 2022-23, the BSA ran a pilot project in Scotland, funded by the NCR Foundation, to design and test a solution to overcome the barriers to teachers delivering practical STEM activities in primary school classes. As a result the CREST SuperStar kit box was born!



CREST kit boxes are designed to enable any educator. including non-STEM experts, to quickly pick up and run fun and educational practical activities linked to the primary curriculum. Therefore reducing the planning time and cost of running high quality practical investigations with whole classes (not just STEM clubs), increasing teacher engagement and widening access to more young people.



Over 30 teachers in Scottish schools working in challenging circumstances were given free CREST SuperStar kit boxes, and in return shared their experiences of using the resources with over 700 pupils in total.

## **CREST free kit boxes**

CREST is BSA's nationally recognised STEM education scheme, providing enrichment activities to inspire, engage and connect young people aged 3-19 across the UK with science, technology, engineering and maths (STEM). Its student-led project work inspires young people to think and behave like scientists and engineers. CREST Superstar provides teachers and home educators with simple, practical and adaptable activities for pupils aged 7-11 that align with the primary curriculum. Once students have completed 6-8 Superstar activities they can receive a CREST Award certificate from the British Science Association, recognising and celebrating their achievements.

It's like Christmas, opening the boxes! Look - we've got everything!

- Participating teacher

The CREST SuperStar kit box was designed to overcome the challenges teachers are facing in the classroom by providing them with:



physical resources to run eight CREST SuperStar activities (for pupils aged 7-11)



printed planning guides for teachers



activity passports for students to record their progress



CREST SuperStar Award certificates to reward students' achievements





+ **½**)



time

effort

money

on planning activities and sourcing material

Increase in teacher engagement

Increase in practical activities for pupils

Would we have done the activities without the kit boxes? Probably not. There are so many demands made in terms of curriculum and everything else, so the boxes were the inspiration for getting this work done.

- Participating teacher

## Benefits for teachers

Reduces the time required to plan a lesson, increasing the volume of STEM activity.

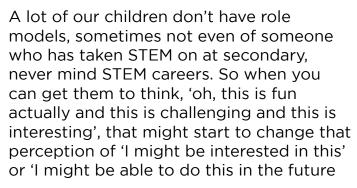


of the participating teachers say they would recommend CREST to other teachers and schools.

On the whole they exceeded expectations, in terms of having everything you needed in the box, it was a Godsend. It really gave me confidence to just run with it and not have to worry too much about preparation beforehand.

- Participating teacher

Improves confidence in delivering high quality STEM activities.



- Participating teacher

Addresses the resource gap for STEM activity.



of teachers say they plan to participate in the CREST Awards again.

It gave me a bit of an attitude shift, e.g. how it's not all about key terms and phrases but also about standing back and letting them figure stuff out for themselves and even fail if it's instructive to do so.

- Participating teacher



## Benefits for pupils

Open-ended, enquiry-based activities foster a scientific/engineering 'mindset' encouraging pupils to experiment, observe, draw conclusions and 'learn through failure'.

Group-working and the inherent need for communication within the activities greatly encourage team-working and collaborative skills.

Activities tracked across multiple learning priorities, incorporating literacy and numeracy **skills** into one, STEM-based, lesson.



Makes science After the pilot, 41% of teachers report relatable that the majority of their pupils feel science is relatable to their everyday lives, compared to 27% before. Up 14%

We don't normally do science in class. We're normally just doing maths, literacy, and spelling. This is more fun.

- Participating pupil





**Improves** interest in STEM

After the pilot, almost a third of teachers feel that all of their pupils show an interest in STEM subjects. compared to 13% before.

Overcome barriers pupils face

of teachers feel the kit boxes help to overcome barriers pupils face in engaging with STEM



The lessons you get taught (in STEM sessions) are just amazing. When we did the spinners, we learnt about leadership and stuff. Doing the rafts, we learnt about craftsmanship. It's really good.

- Participating pupil

To find more out about upcoming kit boxes, join BSA's

**Engage Teacher Network** 

crestawards.org/engage

The activities included in the kit boxes are hosted in our primary resources library. All the activity PDFs are free to download:

library.crestawards.org primarylibrary.crestawards.org