

“The real treat has been sharing the enthusiasm the children have. A little power goes a long way, and the children wanted their parents to see for themselves the fabulous work they had been doing.”

Riding the Wave – a pilot CREST Club

Lansdowne Primary School

Cardiff

Quick facts for teachers

What is a STEM Club?

Although they complement the curriculum, they are not designed to be about writing, tests, or exams. Activities may involve practical experiments, investigation, discussion and reflection. Most of all, they should be fun.

They can motivate and build confidence in young people who struggle with STEM subjects, and provide an extra outlet for children who already show aptitude and are interested in furthering their learning.

The aims of STEM Clubs are to:

- enrich, enhance and extend the secondary school curriculum
- improve attainment in, interactions with, and experiences of, the STEM subjects among pupils
- improve collaboration between schools and also between schools and industry
- encourage pupils to continue their education in STEM beyond GCSE and Diploma (or equivalent qualification) level.

Introduction

Lansdowne Primary School is situated a few miles to the west of Cardiff city centre. It mainly serves the areas of Canton, Leckwith and Victoria Park. The school provides education for pupils between three and 11 years of age. Pupils are taught through the medium of English, and Welsh is taught as a second language.

Brief summary

CREST Star is a UK-wide award scheme enabling children, usually aged 5–11, to solve science, technology, engineering, and maths (STEM) problems through practical investigation. The activities focus on a mixture of hands-on practical work and discussion, encouraging children to work independently of adults. Lasting approximately one hour, the investigations are designed to be used in a club, in lessons, or outside of school.



Links to Curriculum

- Solve a relevant, science-based problem, set within a context.
- Work in pairs or small groups, independently of adults.
- Take part in practical, hands-on science activities.
- Think and talk about science.
- Share ideas using a variety of media.

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What are STEM Ambassadors?

STEM Ambassadors are volunteers of all ages and from all backgrounds working in STEM related roles from apprentices to geologists and nuclear physicists to zoologists.

Have they received any training to work in schools?

All STEM Ambassadors are registered and have been checked by the CRB, and have each received an induction into working in the classroom.

What do they do?

STEM Ambassadors provide a wide variety of services such as careers talks, mentoring, helping with school events or clubs and facilitating workplace visits. Past activities have included: building rockets, farm walks, mock job interviews, rat dissection and speed dating!

How much does STEMNET charge?

Absolutely nothing.

Sounds great – how can I book my STEM Ambassador?

Simply log on to www.stemnet.org.uk to find your local contact.

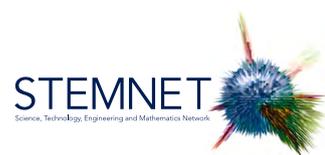
Inspire young people in science, technology, engineering and maths (STEM)

Become a STEM Ambassador

For further information visit: www.stemnet.org.uk

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Details of Club activity

New to teaching in a new school, with a new role as Science Coordinator, the only option is to take advantage of any opportunity given.

Keen to make a good impression and share my love of science, I was looking forward to starting a Science Club. When I heard about the CREST Awards at a meeting for National Science and Engineering Week back in October it merited further investigation.

A comprehensive system complete with lesson plan ideas and stickers to boot sounded too good to be true. With a class full of already enthusiastic children and an hour's lunch break on a Tuesday, we began our CREST Club in earnest.



The idea behind CREST is simple, and the lessons are highly engaging and accessible with great potential for variety. The children love the idea that it is primarily focused on hands-on science, and they really enjoy getting to stay in on a lunch break and “make toys and play games” as some of the children have said.

Not one to miss an opportunity, lots of questioning and scaffolding takes place during our sessions to maximize the learning opportunity, and the iPad is always out taking photos and videos. With the help of Comic Life from the App store and fifteen minutes or so, the children generate comics of their CREST sessions afterwards to publish on the school website, share with the class, or put on display in the school and in presentations.

Our CREST Club has been a great way to get the children excited and enthusiastic about science in school and tap into their creative side along with their problem solving skills. The sessions always build teamwork and communication skills, and it is wonderful to hear them share with the class after lunch what they have been learning about. The development of their reasoning and scientific vocabulary has impressed many of the staff and visitors to the school.

Benefits and impact for the students

The real treat has been sharing the enthusiasm the children have. A little power goes a long way, and the children wanted their parents to see for themselves the fabulous work they had been doing. So at their request, we held an open evening for parents to come in and be taught a series of CREST lessons. The end result was some wonderful collaboration and a lot of mess afterwards, plus a few empty packs of Haribo... because science doesn't happen on an empty stomach on a Wednesday evening after school!

The feedback from parents was highly positive, and a great opportunity to embed in the children the concepts they had been investigating through CREST. The comics, together with assemblies and open evenings, linked very well with the oracy strands in their literacy targets; modifying and adapting their talk to a purpose, as well as presenting information in various forms.

The next step is to get more children involved across the school, and have more STEM Ambassadors visit us in class.