STEM Week 2018

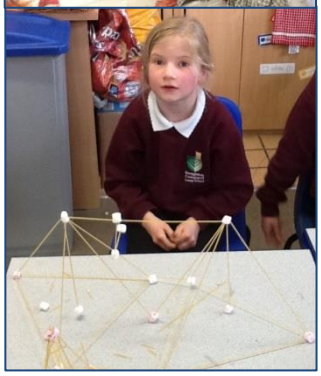
12th- 16th March

Last week was our amazing STEM week at Houghton Conquest. Throughout the week all pupils were engaged in team building, real life problem solving challenges that supported the development and application of their learning in the STEM subjects areas.

STEM, or Science, Technology, Engineering and Mathematics, is a theme based method of applying skills from the core National Curriculum subjects as well as other subjects including; computing, art and design, design technology and PSHE.

We were very fortunate to have a number of guest speakers last week. Mr Birch (Katherine's dad) came to visit us on Monday 12th March to explain all about the workings of an aeroplane engine before setting us off on our first team challenge: build an aeroplane from junk modelling with a minimum wing span and ability to carry weight.

On Tuesday Dr S Burton (Lily's mum) presented her work as a fluid engineer. The children really enjoyed the challenge to then design and build a boat that floats out of just plasticine.



The winning team were the team that built a boat that could carry the most amounts of marbles before it sank!

Our final visitor, on Wednesday afternoon, was someone we all know very well. Ms Harvey came to speak to the children about her other career as a photographer. She explained the workings of a camera and the initial discovery of how light travels in straight lines to project images. The challenge for each team was to then create the most obscurers, or pinhole cameras, as possible using Pringles tubes. As well as this Ms Harvey, with some friendly support, transformed our school reception into a huge walk in pinhole camera room, allowing the children to fully immerse themselves into the science of light and image projecting.

We would like to thank all of our visitors for their hard work, time and commitment to supporting us with our exciting week of challenges. Having local people and parents visit us to share their everyday lives provides our children with great contextual understanding of why we learn the things we do at school as well as providing inspiration and supporting aspirations.

On Thursday all children were split into their teams to complete another 4 challenges! We built Zip lines, balloon towers, earthquake proof buildings and newspaper bridges. The amazing teamwork and collaboration skills demonstrated by every pupil were something for all children to be proud of.

For each challenge throughout the week the Teams were awarded team points if they met the brief given to them. In some tasks they had to either design the most cost effective or structurally sound structure. We had a very special celebration assembly on Friday afternoon to work out together which team had won the most challenges.

The winning team, with over **170** team points was…

YELLOW TEAM!

Each child was awarded a pot of magic slime for the hard work, collaboration and team skills.

Pupil Views

"I liked everything about STEM week, especially making the Zip-line"

Blaise, Eagles

"I think the balloon show was very funny and good and this was my favourite part"

Hannah, Eagles

"I enjoyed the bridge. Some of us made the stands and some of us made the bridge. We worked really well together. It made me feel happy because with a whole stack of paper on top of it, it worked."- Sian, Hawks

"This is awesome"

Lily Davies-Smith

"I liked when we did the balloon with Mr Macinnes because we had a leader. We had to build a balloon tower which linked to our topic of mountains. So we used that to help us."- Katelyn, Hawks

"I liked when we made the spaghetti and marshmallow tower because we got to put it on jelly and see if it fell."

Cherry, Hawks

"STEM week was the best week ever because it made me realise how important Science, Technology, Engineering and Maths is to my future!"

Holly, Eagles

I was lucky enough to be invited to take part in the School's STEM week, by giving an assembly and setting an engineering challenge for the children. The engineering consultancy that I work for in Cranfield specialises in fluid engineering and it was great to be able to share with the children some of the work we are doing on water and wastewater infrastructure projects such as mending dams in Nigeria, improving the water treatment systems in Qatar and advising on aspects of the Thames Tideway Tunnel. I was amazed by the children's breadth of knowledge and enthusiasm about science and engineering. Everyone was keen to ask and answer questions in the assembly, and able to contribute to our engineering discussions. After a demonstration and discussion about buoyancy, the children were set the challenge of designing and building a "container ship" from plasticine that could not only float, but which could carry a load – in this case marbles! The team work and creativity that went into the challenge was brilliant! It was so lovely to see the children demonstrating real science and engineering – designing, testing, revising their designs and making the final structure – then the real excitement of loading their ships with marbles to see how many they could carry before sinking! I'd like to send a big "Thank You" to all the children for taking part so enthusiastically and making me so welcome!

Sue Burton
BHR Group

BHR Group
EXPERTS IN FLUID ENGINEERING

Bedford Girls' School

On Friday morning, Hawks and Eagles class were invited to join Bedford Girls' School for a morning of Balloontastic science and STEM challenges. All of our pupils were split into groups working with the girls and had a wonderful time demonstrating the skills they had learnt throughout the week. The children seemed to particularly enjoy having a rocket balloon being fired at Mr Macinnes, luckily it just missed!

A Huge thank you must go to Bedford Girls' School for inviting us to their show and for providing transport to and from the school.