STARTER FOR STEM

***Hayley Jordan**, STEM coordinator at Parsons Green Prep, on the importance of teaching these subjects at primary school*

STEM influences nearly every part of our daily lives and is an area of industry set to burgeon in the future. As a result, it has already become an important aspect of the curriculum in secondary schools. Primary teachers are also keen to see STEM embedded in their curriculum.

Many primary schools could argue that they have been teaching STEM before the term was even coined, but it is becoming more explicit within the education setting as schools like Parsons Green Prep prepare their children for jobs that don't yet exist.

That is a tall order for any subject so how does STEM do this? Rather than focusing on just subject knowledge, Parsons Green Prep encourages children to develop their skill set by finding out about the world around them. Inquiry learning is made more relevant through real life links and self-led problem-solving projects.

Listening to one another's ideas and building upon what is said exposes children's preconceived ideas, opens their eyes to alternatives and lets them find the truth of these. Taking turns and sharing

> **"STEM is needed in primary settings as we prepare children for jobs that don't yet exist"**

are important contributions in developing a systematic approach to problem solving, building up thinking, patience and resilience. These skills are transferable into life inside the school as well as out.

At Parsons Green Prep a creative cross-curricular approach ensures that subjects are linked with purpose. For example, when Year 4 studied 'Invasions', they planned their own invasion through computing (using Scratch programing), explored



ABOVE *A pupil studies a model of the human brain*

forces and materials in science to engineer attack catapults, and linked everything together with maths through measurement, use of Roman numerals, calculations and directions.

Explicit STEM sessions each week allow children to find common interests they want to explore, reinforcing learning. Year 6 are proud to show off the Lego WeDo creatures they have been working on. These animals have been programmed to move and create sounds. At the other end of the school, Year 1 have been developing tall structures. Recognising how to organise spaghetti with marshmallows resulted in some sticky yet memorable moments. In all classes self-control and teamwork is evident in problem solving.

Termly STEM activities are lauded to raise the STEM profile and children's excitement. House Days offer full inclusivity to the pupils at Parsons Green Prep, providing children in Years 1 to 6 the chance to work together and collaborate, allowing for deeper learning. At our most recent House Day children turned detective, solving a murder mystery through chromatography, before taking a well-earned break by creating their own slushies, measuring out liquids and observing the chemical reactions between ice and salt.

The pupils love STEM and it is a highlight of the weekly timetable. "I'm so glad we are given the chance to learn about these subjects as they are fascinating," Amalie recently said. "I think we will be better prepared for secondary school because of the work we have done." With the after-school STEM club fully subscribed to, it appears parents and children are in agreement.

STEM projects are not just limited to the classroom. Parents get to join in the fun with termly homework projects. Open-ended tasks like the World of Wonder space project allowed pupils to pursue their interest and bring their parents along the way.

The school picked up the ISA school award for STEM this year and headteacher Helen Stavert believes that STEM has had a massive impact on the teaching and learning in school. "Parsons Green Prep School is a huge advocate of STEM, which are key subjects for securing positive opportunities and career paths for future generations. Primary school is the perfect starting point to encourage children to explore and begin to understand and realise the links between these subjects and why we study them."



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A Year 4 teacher and STEM coordinator at Parsons Green Prep

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