

# HS2 WORKSHOP

## STEM professionals working on the HS2 project deliver inspiring STEM workshop at Lymm High School.

Lymm High School was delighted to welcome a number of STEM professionals to school on Wednesday 17th July.

Currently working on the HS2 project, the Government's proposal for a new high speed north-south railway, the guests led a fun and interactive day of STEM workshops for Year 7 students.

Sixty young STEM enthusiasts participated in the day-long workshop, where they learned about STEM careers and took part in a number of team challenges.

Students engaged in practical engineering and design challenges and learnt about the skills required to build and manage aspects of their own high-speed rail network. By means of an introduction, participants were asked to reflect on the types of jobs that existed within STEM industries, considering the key skills and attributes (STEMpowers) they would require to be successful in these roles.

Exploring the attributes of four STEM professionals in particular - a civil engineer, environmental adviser, customer experience designer and a buildings information management analyst – students were encouraged to take on the role of one of these individuals in the first task of the day.

The design-led challenge tasked students with designing a railway station of the future; requiring them to produce a design brief that would consider the needs of all consumers, take into account the environment, provide a sustainable design and encompass changing technologies.

The Year 7s learnt that large infrastructure projects such as this, are many years in planning and take a long time to be fully constructed and realised.

Gaining an understanding of how difficult it is to plan for the future and the unknown, the young learners discovered the importance of creativity in ensuring designs are future-proofed.

After developing fully-annotated design sketches that communicated all aspects of their ideas, the challenge concluded with some very eloquent and confident presentations as each group introduced them to their peers.

The second main challenge of the day involved building a prototype tunnel structure that would be lightweight, strong and withstand the application of an external force. With a limited number of resources in order to complete the brief, students engaged passionately with the task and there was a palpable sense of excitement as each group's tunnel was tested.

Predictions were made as to whether the tunnels would withstand the application of the external forces, with innovative and interesting designs being trialled. Visitors from the HS2 project were very impressed by the passion that the students demonstrated throughout and how impeccably behaved they were.

It was a thoroughly enjoyable day for all involved and an opportunity that we hope to be able to offer more students in future!

