

Freedom and Fun

Neston High School STEM club



KEY FACTS ABOUT OUR STEM CLUB

- It is open to students from year 7 to year 13 and runs for an hour every week
- Students support each other working on projects of their choice
- We call our STEM club a “Maker Space” – somewhere students can make things using recycled materials and any of our machinery or lab equipment



“I set up our ‘Maker Space’ – an engineering lab in our school where students can come and make whatever they would like using recycled materials and any of our machinery or equipment - the day we moved into our new build site in 2018. **I wanted to create somewhere students could come to make things and have the creative freedom to do what they love.**

Students from year 7 to year 13 come to the Maker Space, collaborating and showing each other how to use the machinery we have in our lab. **They all think that engineering is cool and they all like to make things.** We do a lot of plastic recycling on site so we can produce our own plastic sheets, which means we don't need to buy materials – we make them ourselves. **Some of our older students volunteer as leaders and help to run the club: they inspire and guide the others.** It gives them leadership opportunities to show what they know.

Students come into the Maker Space with an idea of what they'd like to make. They have to plan how they might go about creating it – I guide them and sometimes make something alongside them, but I don't tell them what to do. They get suggestions from each other, and the other students have expertise to share. We have a sheet press, we have made our own shredder, and we have our own injection moulder which the students use to make all sorts of things from recycled bowls to a new seat for my chair!

I want to inspire kids to be makers, designers and engineers. Everyone will say, “I can't do that”. But I want them to be brave and to have a “I can try that, I don't need to succeed, but I tried” mindset!

Being part of the club sets you apart from others – it provides extra experience that other students don't have. The 3D printing you've made, the injection mould you created, the smart storage you made for your mobile phone – you can show it off and how it works – you can show people what you've done!”

Pat Link – Maker Space facilitator, engineering teacher and STEM coordinator



Inspired to set up your own STEM Club?

Discover more about STEM Clubs and get free resources and ideas at:
www.stem.org.uk/secondary/enrichment/stem-clubs

100%
of students
say others
should join!

What do our school leaders think?

"We believe that this club, along with the embedding of our 'precious plastic' recycling in our curriculum, has encouraged more students to opt for engineering subjects. **This year we have seen a significant increase in girls opting for engineering at A level** – we have 5 girls this year, while previously only 1 girl had taken A level engineering."

Tina Phillips – Business Manager

What would the students say to anyone thinking of joining the club?

"You should join because **you get a lot of freedom and it's fun** to make what you would like"

"I'd advise my friends to join as **it's a great way to gather skills you'd never get in subjects**, plus it is really fun."

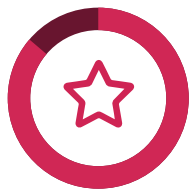
We surveyed the students who go to Neston High's Maker Space:



86% say that learning STEM subjects is fun



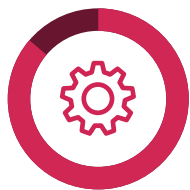
100% are either considering or want a job in STEM



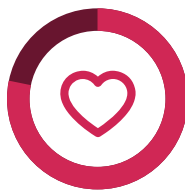
85% say that they think that they can do well in STEM subjects



78% say that there are lots of ways to get involved in STEM activities at their school



86% say that being part of their STEM club is helping them to develop new skills



78% say that that their teachers are passionate about STEM subjects

Neston's Maker Space is run by teachers and student leader volunteers. We surveyed those student leaders:

100% student leaders say that being part of the leadership of their STEM Club:

- improves their enjoyment of STEM subjects
- positively impacts on their enjoyment of school
- improves their awareness of possible STEM careers
- makes them want to pursue further STEM study or get a STEM-based job in the future!

"I have learnt how to be able to **help teach kids and help inspire** them into taking engineering. It's a **fun activity and it's great being involved** in a team."

Year 11 STEM Club Student Leader

