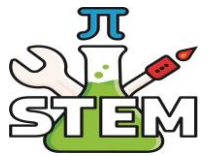


## Bronze Crest Award

# STEM@TSS TERM 1



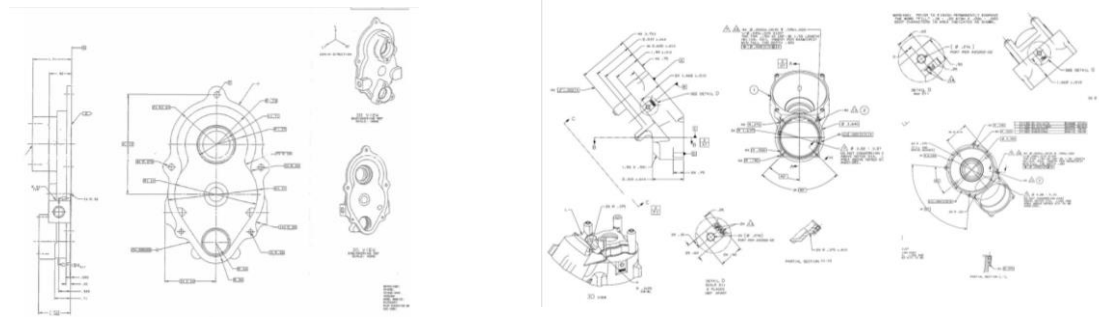
Together Resilient Ambitious Caring

Pupils who took part in the regional final of the Solutions For the Planet project last school year have managed to achieve the bronze crest award for the excellent work they did with that project. GEN will be targeting these pupils next year to take part in the extended project with Produmax and will hopefully build towards a silver crest award.



## Produmax Helicoil Year 12 Project

Paul Braden has been working with Produmax and our current Year 12 Engineering pupils on a high level engineering project. Pupils have been working in small teams to solve a problem that engineers at produmax face on a daily basis. Pupils have been set the brief to design a jig that will speed up production on Produmax's production line. Engineers from the company have visited the school on two separate occasions to help mentor the pupils through the project which will culminate in our pupils presenting their ideas at Produmax later in the school year. They are competing against South Craven to see who will be crowned the winner.



## The Exciting World of STEM Conference

GEN was asked by the CTE team in Bradford (Careers and Technical Education) to deliver a presentation to Primary school teachers about bringing Engineering to life with a TECH4GOOD focus. GEN was one of five presenters who delivered to teachers from the Primary sector. The aim of the conference was to show Primary schools how they can deliver interesting STEM activities to pupils in Key stage 1 and 2. The TECH4GOOD focus is to encourage more females to consider STEM careers. GEN spoke about how we deliver problem solving sessions to in our lessons and how the extended project we are currently running with Produmax could work in a primary school context. TSS has been the driving force for the TECH4GOOD focus and now CTE Bradford have decided to role this initiative out Bradford wide.

## F1 in schools

Building on the 11<sup>th</sup> place finish in the regional final last school year SDV is continuing with the F1 in schools competition. However, this year we have two teams. One in Year 11 and one in Year 10. The Year 11 pupils are mentoring the Year 10 pupils and sharing the knowledge they gained from entering last year. SDV chooses high attaining pupils from our GCSE Engineering classes to challenge them even further and link what they learn in lessons to real life situations. As well as this they improve soft skills such as team work and presentation skills.

# E is for Engineering

It's the fourth year that we have teamed up with Leeds University to help encourage more females to consider Engineering as a career. In October, 60 female high attaining pupils across Year 7,8 and 9 took part in exciting workshops delivered by the University. In Term 2 the pupils will take part in workshops delivered at the Universities Engineering faculty.



## Cyber Explorers club

Fozia Khan has been running this club after school on Thursday's and was open to all KS3 students.

Cyber Explorers, an initiative led by the Department for Digital, Culture, Media and Sport (DCMS), showcases how the skills being taught in class are linked to real world situations, through an immersive, gamified learning experience. A virtual world where students uncover how digital, computing and cyber security skills are integral to successful career paths.

## Tech for Good event at Shipley College

The computing department took a group of 12 year 9 girls to Shipley College. The aim of the event was to build awareness in young women and girls that STEM subjects, qualifications and careers are important and the sector is inclusive for them. The jobs available are diverse with high skills, sustainable employment and well paid. The students heard from women leaders about their experience and how they started doing the job they do. They also spoke about other factors such as, balancing work and family life, struggles and achievements.



## Lego League

MTN and MCK have been helping a group of year 10 students to take part in the First Lego League competition where they program a robot to complete various challenges on a map.

The theme this year is alternative energy sources. The group have been looking at alternative sources of generating electricity rather it being produced by burning fossil fuels, which are a finite source. They also have to produce a project which focuses on issues this area of STEM faces and present their presentation to group of leading experts in the field.

## Engineering Project

GEN has been working with a group of High attaining Year 9 pupils along with Produmax on an extended project. The project has a Tech4Good focus where pupils work in small teams to develop a solution to one of the globes current problems. The project was launched to the pupils at Produmax and three Engineers, including the operations manager will be coming to school to watch the presentations and decide on a winning team. Laura Stewart who is an Arkwright scholar has been helping mentor the pupils after school on a Tuesday.

## Year 10

### Produmax visit

Mr Collis helped Year 10 Engineering students have the opportunity to visit local firm Produmax, last month with a tour of their facilities. Produmax, is a huge supporter of engaging young people into the world of engineering and continues to build valuable links with the school. Produmax specialises in high value and key critical components within the aerospace sector of engineering. Students benefit from these visits massively as it provides an insight into the real world and helps build the links between theory learnt in the classroom and then applied in the real world. Career path routes can also be highlighted by these visits, so that students can see beyond GCSE and A Level and therefore inspire them to work harder towards their final grades.

