

LIFELONG LEARNING REPORT

Greenpower

I visited Archibald School on 19 May and watched the Cummins apprentices working with the students on their second car.



I attended the Goblin competition day for primary schools on 25 May at Nissan. It was very cold and wet so I left early but took some photos



Mowden School from Darlington performed very well winning the prize for 'Best Body' and ranked 3rd for their portfolio. Extremely well done for their first attempt

I visited Queen Elizabeth College on 3rd May and was pleased to see so many of the students involved during their lunch hour. I was interested in hearing from the students about their individual roles and that almost all were considering STEM based studies post A levels.

Richmond School

I visited the School on 16 June. See Tom Braham's update below

"When we came back after the Christmas holidays, the go-kart was borrowed by some students from Durham University – they used it to attach a 'data logger' and check things like power output, heat, current and battery drain. It spent some time in the wind tunnel where it was checked for aero dynamics and was taken to Croft and driven round to check reliability and how it worked under different gearings, this was then used for students coursework and used by our associate Doug in lectures.

After that we spent some time changing some parts on the go-kart and took a new team to Croft for testing. Unfortunately it rained all day and was very cold, we still managed to get some good laps in and checked the temperature of the motor using some thermos loggers.

We found that using the gearing last year, the motor would immediately climb to about 40 degrees and would continue to climb, however when on a slower more 'medium' gear, it would hit around 30 and flat line. According to the manufacturer the motor runs best at around 30-40 degrees and should not exceed 80, which it definitely did last year!

On our return we did some re-wiring, changed some body panels and began to get it race ready – our plan for this year now we have sorted the gearing was for reliability, trying to finish the race and aiming for a mid to top 10 finish if possible.

Doug also got in touch and informed us that he now had a second go-kart, unfortunately due to time, money and space we did not have the resources to build the go-kart, however through the help of Matt Randall from our science department, we were able to put together a full girls team, which would drive the already made up go-kart from Doug.

Yesterday we took both teams to croft and both go-karts and did some testing. Our plan was to give the drivers more drive time, get them more involved and get the pit crews used to their routines – staff and adults are not supposed to help on race day! The day was a great success, the weather was fantastic and the go-kart ran with no problems from around 10am to 2:30pm when we had to go home. The students thoroughly enjoyed the day and found it very useful.

The plan now is to finalise the go-kart, making sure everything is fitted for scrutiny, that it runs smoothly and get the team ready for race day which is in 3 weeks **13th July**.

Thanks for all of your help as usual, hopefully we will see you and some of the CSI team there!"



Nunthorpe School

I visited the School on Tues 28 June to see what progress had been made on the Gravity Racing Car and the Robotics Projects. Slow progress is being made on the Gravity Racing Car due to time constraints and it is going to be ready for Time Trials in the next academic year.

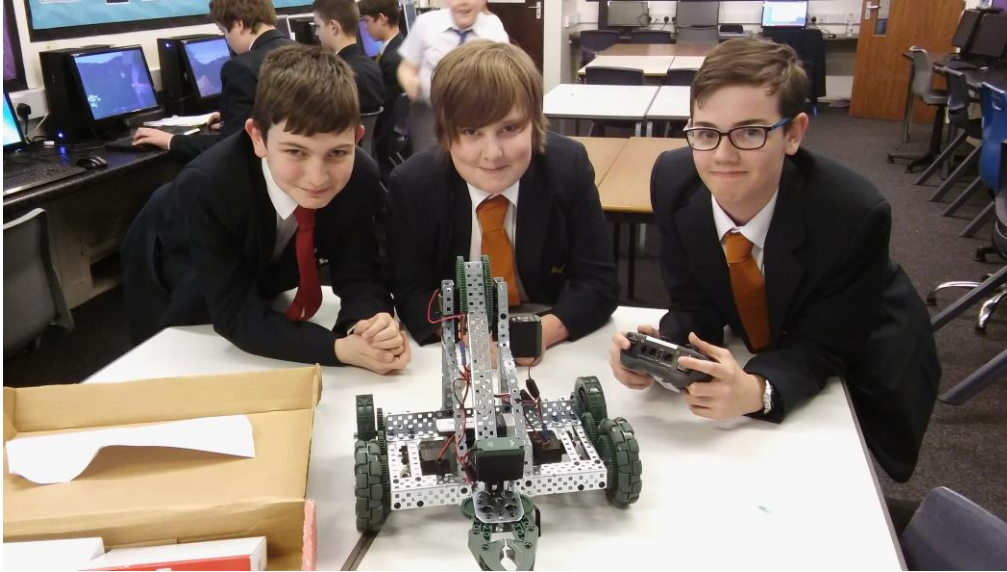
Vex Robotics

See report and photo below from Tom Day, the teacher involved
"Since I attended the excellent Vex Robotics training we have been using the Robot and equipment with a group of KS3 students (Y7,8 and 9) We run a 'Geek' club every Tuesday night and some of these students have started working with the robot. So far we have not got onto the coding side of it but have had fun building and re-building the robot we have.

The plan for the next few months after the summer is to design our own robot and build it

using a range of motors and inputs. We will then look at the competition for this year and have a go at entering it.

The students are enjoying working with the robot and using both their computing skills, but also design and technology and engineering.”



Other Middlesbrough VEX Robotics update

I have heard from Laurence Jackson who received the kit late that they expect to make a start in Sept. They received the kit because Macmillan did not attend the mandatory training session held for teachers. I have had no response from Acklam Grange, Kings Academy, St Patrick's or Trinity despite mails to try and arrange a visit. Schools are busy extra busy with the end of term approaching. I will follow this up in the Autumn term

Children Challenging Industry . They are celebrating their 20th Anniversary

RTC North - 'North East Exhibition for Future Engineers'

We are now supporting quite a number of schools mainly through the VEX and Greenpower projects. The stickers obtained from Mike Lambert have been distributed to schools involved in our projects. I have also let Nunthorpe School have some small coloured stickers previously ordered by CSI.