

## Scarborough UTC News Flash

Friday, 16th December 2022

### INTRODUCTION

Dear Parents and Carers,



We hope you enjoy reading this edition of the Parent Newsflash and I would like to wish you all a Merry Christmas and a Happy New Year. Thank you for making me feel so welcome – it doesn't feel like it has only been 4 months.

We look forward to a successful 2023.

All students return to college on Wednesday 4<sup>th</sup> January 2023 at 08:45 as normal.

**H Dowds**

**Principal**

### ATTENDANCE & SAFETY

#### **Safeguarding and Attendance**

As we approach the New Year, we will continue our strong focus on improving attendance at College. The agreed college target for each student is attendance above 96.5%. We are looking forward to

providing additional support for students and families in the New Year with new attendance staff. We will be working closely with NYCC attendance team to ensure our students maximise their potential.

Students were individually recognised this week for excellent attendance and hard work during our rewards assembly and activities.

## **Health and Wellbeing**

Over the Winter period, many children and young people experience feelings of worry, anxiety, depression and loneliness.

We want to use the Christmas period as an opportunity to promote additional NHS resources that offer information on services to support children and young people's mental health to ensure they get the help that they need.

## **Resources**

[The Go-To - Emotional wellbeing and mental health \(thegoto.org.uk\)](http://thegoto.org.uk)

NHS – Scarlet Fever Scarlet fever: symptoms, diagnosis and treatment

Email: [info@community-counselling.org.uk](mailto:info@community-counselling.org.uk)

Website: [www.community-counselling.org.uk](http://www.community-counselling.org.uk)

Telephone: 01653 690124

[Mobile phone safety | Childline](#)

[Physical activity and mental health | Mental Health Foundation](#)

TEACHING AND LEARNING@SUTC

We have once again welcomed employers this week to enhance the learning experience of students at Scarborough UTC. A design engineer from Severfield delivered a masterclass to Y13 mechanical engineering students to support their Project Based Learning structural design and make activity. The session focused on load calculations and their application to structures, requiring students to apply and develop the mathematical skills and knowledge gained within Mathematics for Engineering and Principles of Mechanical Engineering units studied last year. Students will then be required to include load calculations within the final presentation of their bridge solutions to employers at the end of the project.

In addition, representatives from GCHQ were in college this week interviewing Y12 students that had applied to be mentored by them as a part of the Career Development Programme. The GCHQ team were hugely impressed with the calibre of both students and have offered both placements - well done Xavier and Adam! A key aspect of their interview performance was their ability to talk confidently about

projects they have been involved in while at Scarborough UTC, these opportunities being a great asset for all of our students when venturing out to the world of interviews and employment, giving them a clear advantage above other applicants.

A huge thank you to all of our employers for enhancing the education of students at Scarborough UTC, and giving them such a unique learning experience.

## ENGINEERING ENTERPRISE CLUB

### The Royal Navy Challenge for 2023

Students started in September by learning new skills, i.e., fabrication and welding/brazing aluminium as this is the material that will be used for this challenge. As the Royal Navy do not release the specifications for the task until mid-February, the students from all year groups got to grips with both hand cutting and CNC machining aluminium sheet into small boxes before learning to braze the boxes into water tight units, this took some time to develop the required technique, but all the students have mastered this skill, and the results are very impressive. (On a side note, this is a rare skill out in the workplace).

The students then split themselves into two teams and completed a boat hull each to a specification including housing radio control equipment, power plant and a keel.

The New Year will see testing in a tank outside before the Royal Navy issues the specification for the 2023 challenge.

## HEALTH AND SOCIAL CARE

Years 9 and 10 health students have been looking at the role of 'activity co-ordinator' in residential homes for the elderly. They were tasked to create a week of activities that would support the physical, intellectual, emotional, and social development of the residents. The activities had to be fun and engaging and appropriate for a range of abilities. Students had to choose one activity to lead while the rest of the class took part in it. The activities included quizzes, paper craft, a sing-along, and even chair-based exercise.

## SCIENCE

The science enrichment team have submitted their design for the CanSat competition.

The CanSat competition provides students with the opportunity to have practical experience working on a small-scale space project. They are tasked with designing and building their own simulation of a real satellite, integrated within the volume and shape of a soft drink can. The challenge for students is to fit

all the major subsystems found in a satellite, such as power, sensors and a communication system, into this minimal volume.

## TECHNICAL EXCELLENCE

News from Programmable Systems this week - As it is the end of the term, I would like to thank the students for their resilience, and effort with a new subject, and how pleasing it has been to see new year groups getting to grips with programmable systems, as well as thanking all those in Year 11 and 13 who have been busy completing coursework and attending our regular support sessions they have made a huge difference with the levels of self-confidence of our learners so a big thank you to you as supportive parents too. the darker nights do mean that transport or walking home in the dark can be challenging and of course, recent weather even more so.

In Year 11, the final coursework project "Process Control Systems" is now well underway. Our young professionals have been researching microcontrollers. Microcontrollers are small programmable devices, which have a wide variety of applications. In the home, which is how we started discussing them typically used in microwave ovens, washing machines, and household items which perform a limited range of tasks. Products using microcontrollers are said to use embedded technology and we use them in many walks of life, often without noticing the programming that is being used. Learners investigated a washing machine for example, and by using a systems diagram, identified a range of inputs float switches, temperature sensors, magnetic switches, as well as the user interface or UI. These inputs are vital to the programmed control the microcontroller, as they communicate the state of the inputs e.g., which program has been selected, is the door closed, is the machine half full or full of water, what temperature is it? The outputs in a washing machine we discussed the water valves (which use an electromechanical switch called a solenoid valve) the motor for the pump to drain the drum, and the motor to drive and agitate the drum, as well as sound and LED lights or numerical displays to inform the user of washing progress. By relating our learning to such an everyday item, it enables learners to then *decode* the programming that may use microcontrollers in other applications which is what we will be focusing on in the new year. Everyone has got a short home study for the Christmas break, on google classroom, if they are in year 11 which should take no longer than 45 mins.

Year 10 students have been getting their half-termly reviews back this week, in each engineering area, students have taken a topic test to review their examination content. With programmable systems, a simple LED lighting practice circuit board has been manufactured and is a practical rehearsal for their final Employer Excellence skills build a timing printed circuit board, which has been the focus of this half term. Whilst many learners have made good progress in lesson, the attention paid with home study and adding to their google classroom assignments has not been consistent with the effort required to achieve technical excellence, and some progress reports will reflect this as it has had a negative impact on lesson progress. The point of the Employer Excellence skills building unit is to help our students learn, and moving into next term, after the timer circuit build, we are starting on the first coursework unit. Please encourage your child to make regular comments in google classroom with their systems work it is really helpful with lesson planning and enabling student progress. We also offer student support from 4pm on Monday, Tuesday and Thursday, and your child is most welcome to attend and get some extra support

if they are finding parts of the course demanding. As with Year 11, there is a short home study task, on google classroom, which should take no longer than 30 minutes.

Year 9 this week have been dazzling themselves with their breadboarding and prototyping skills as part of the Scarborough UTC desk lamp they will be making in the first half term of 2023. They have created some series and then parallel circuits using some super bright (really, really bright!) light emitting diodes (LED). By carefully designing a parallel circuit, we are able to provide the optimum current to each LED which enabled the class to turn the main lights off and have the room lit up with all their breadboard circuits this practical investigation is essential before we go into the computer aided design suite in January, to design an actual PCB for these particular LEDs which is really exciting as it will be their own design.

For students completing the Principles of Electrical and Electronic Engineering unit, we have completed our half term review with an assignment on AC circuits this week, and as they have had assignments and examination questions each lesson and week all through the term the unit is complete and we are ready for the new year and a new unit when you return!

Best wishes for a restful Christmas break. Mr. Brown

## ENGLISH LITERATURE

Year 9 students have studied the life and poetry of William Blake, with a particular focus on the Chimney Sweeper poems. This inspired one of our students to write a journal entry as a chimney sweep in the 18th century. I am sure you will agree that it is excellent, and even has references from Blake's poetry himself! Can you spot them?

*13/10/1745 Timothy Twine*

*I woke up to a violent cough tearing my throat to pieces reminding me of my unchosen profession. After about two minutes of procrastinating, I had to get off the filthy floor in which I 'weep! And in soot I sleep!*

*I slipped on my black, dusty shoes and made my way to the Master-Sweep. From there, we walked to the house I was to sweep. After a good half an hour, we arrived and I was dreading what was to come next; I prepared myself for the dangers I have been forced into just to live.*

*Around five hours later, I felt exhausted-barely able to walk. I have a red rash all over my body that is making me tired and insufficient in my sweeping, but if I show inadequacy then the Master-Sweep might leave me to rot on the dirty, rat-infested streets of London.*

*It is now night as I complete today's journal. I am getting ready for the few painful hours of deprived sleep I can get. Hopefully tomorrow I will wake up indefatigable.*

**Written by J. Milner, Year 9**

D. Moon, Year 9, spent a lot of time researching child labour in the Industrial Revolution and even in modern society. No Wikipedia was consulted, so D. Moon had to navigate a good number of resources and decide which were reliable. He then put it all together in this report.

He is so proud of his work, as are we!

### **Child Labour in the Industrial revolution**

Child labour happened because if children had no homes because their parents had no money so they had to sell them to rich people for a little amount of money. Child labour was not an invention of the Industrial Revolution. Poor children have always started work as soon as their parents could find employment for them. But in much of pre-industrial Britain, there simply was not very much work available for children. This changed with industrialisation. The new factories and mines were hungry for workers and required the execution of simple tasks that could easily be performed by children. The result was a surge in child labour presenting a new kind of problem that Victorian society had to tackle.

Raising the age at which children started work was an important step forward for child welfare, but it did little to improve the working conditions of the many children that remained at work. Children in the workplace still remained largely unprotected from the mistreatment at the hands of employers and co-workers. In the 1850s the future liberal MP, George Edwards, worked as a farm boy under a man who never missed an opportunity to thrash me. This, he concluded though, was 'no exception to the rule, all poor boys in those days were badly treated.

### **How child Labour should be banned**



Child labour should have been stopped a long time ago because Child slavery and labour are not small problems. 152 million children worldwide are victims of child slavery and labour and disasters such as COVID-19 have made the problem worse.

Almost 1 in every 10 children worldwide are victims of child labour 48% of them are aged 5 to 11 years old.

73 million children are exposed to hazardous work risking injury and death.

Divine, 12, is from the Democratic Republic of Congo. When her father passed away, she and her sister had to become contributors to the household income to afford food. But she has bigger dreams for her future.

### **Why is child labour still around and where?**

#### **Why do children work?**

Poverty, discrimination and marginalisation are the main drivers of child labour. Children in poor circumstances work because work is seen as the best use of their time in contributing to the needs of the family and preparing them for the life they are expected to lead.



Child slavery: Today, an estimated 5 million children are trapped in modern slavery across the globe – including in the UK.

1 in 3 children in child labour are out of school. 86.6 million children are engaged in child labor in sub-Saharan Africa, followed by central and southern Asia with 26.3 million. Numbers are rising, particularly in the 5- to 11-year-old group, and the coronavirus pandemic threatens to reverse years of progress.

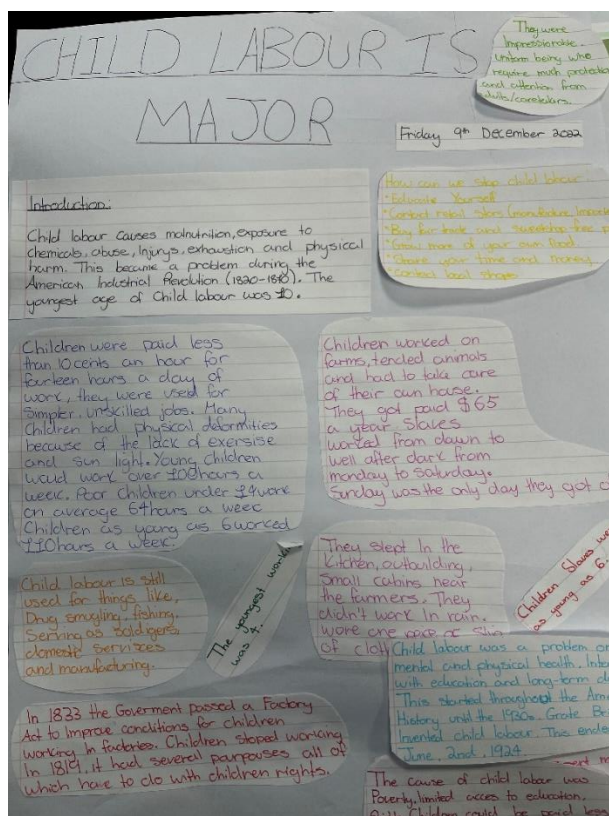
### Where is child labour legal?

Bolivia has become the first country to legalise child labour after a law was signed by Vice- President Alvaro Garcia Linera on Thursday. The new legislation was first approved by Congress earlier this month, and now the signature from Linear means the age that children can legally work is to be lowered from 14 to 10.

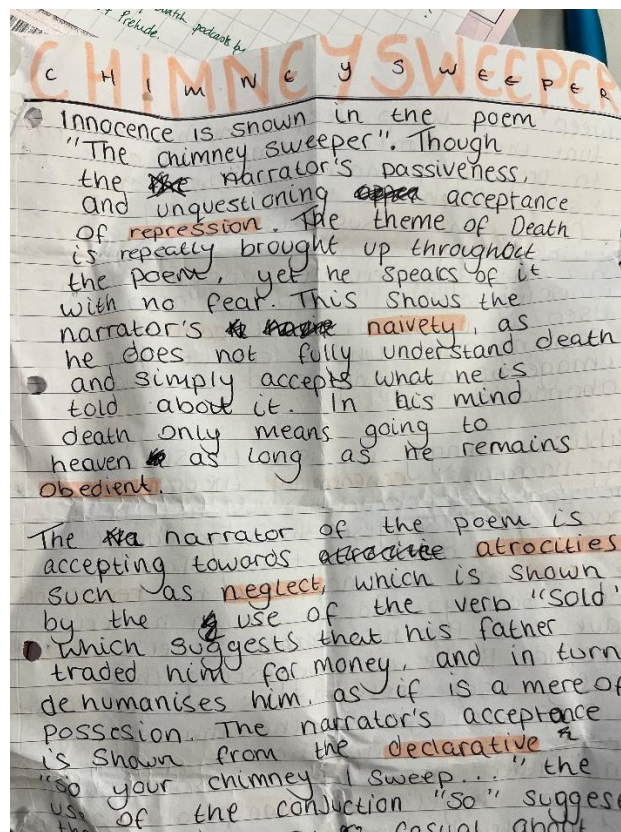
These are more countries that have child labour around the world, Somalia, North Korea, Eritea, South Sudan, Chad, Venezuela, Guinea-Bissau, Syria, Mozambique, and last but not least Central African Republic.

**This is by K. Brook, Y9**

A beautiful way of presenting her research about child labour ready to be applied to a piece of transactional writing.



A huge well done to E. Stanley-Warren in Year 9 who was so inspired by our studies of William Blake, actually researched his poem The Chimney Sweep in real detail completely independently.



## COMBINED CADET FORCE

SUTC Cadets attended Alpamare on Friday 9<sup>th</sup> December 2022. The visit was twofold. The first was to allow all those cadets who had not yet completed the CCFRN National Swim test to do so, prior to next year's afloat activities which are being planned for Sailing, Canoeing, Kayaking and Paddle Boarding at Wykeham's North Yorkshire Water Park.

The second was to have a bit of fun as the cadets have all worked hard this year and are at a stage where they will achieve their One-star Award to gain promotion from New Entry Cadet to Junior Cadet. It is anticipated that by the end of January all of the cadets will have achieved this level. Well Done to everyone for their hard work and participation.

The cadets all displayed a level of maturity whilst at the pool and behaved impeccably. We expect nothing less from Royal Navy Cadets. The cadets did both the contingent and the college proud.

Thank you again to parents for supporting the cadets and with timely return of paperwork. Without the cadets, their commitment and your support we cannot achieve what the cadets deserve.

The CCFRN Staff would like to wish all the cadets and parents a Merry Christmas and a Happy New Year to you all.



## CHARITY

In October staff and students were asked to wear something red for Wear Red Day – Show Racism the Red Card. In total we raised £111.00. Mrs. Page visited the food bank in Scarborough yesterday and donated the proceeds to help those in need.



## DATES FOR YOUR DIARY

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| Christmas holiday:                     | Monday 19 <sup>th</sup> December 2022 to Monday 2 <sup>nd</sup> January 2023 |
| Professional development training day: | Tuesday 3 <sup>rd</sup> January 2023   |
| First day of spring term for students: | Wednesday 4 <sup>th</sup> January 2023                                       |
| Spring Half term:                      | Monday 13 <sup>th</sup> February to Friday 17 <sup>th</sup> February 2023    |
| Easter holiday:                        | Monday 3 <sup>rd</sup> April to Friday 14 <sup>th</sup> April 2023           |
| First day of summer term for students: | Monday 17 <sup>th</sup> April 2023   |
| Bank holiday:                          | Monday 1 <sup>st</sup> May 2023  |
| Summer Half term:                      | Monday 29 <sup>th</sup> May to Friday 2 <sup>nd</sup> June 2023              |

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| Term ends:  | Friday 21 <sup>st</sup> July 2023                             |
| Professional development training days (given in lieu): | Monday & Tuesday 24 <sup>th</sup> /25 <sup>th</sup> July 2023 |