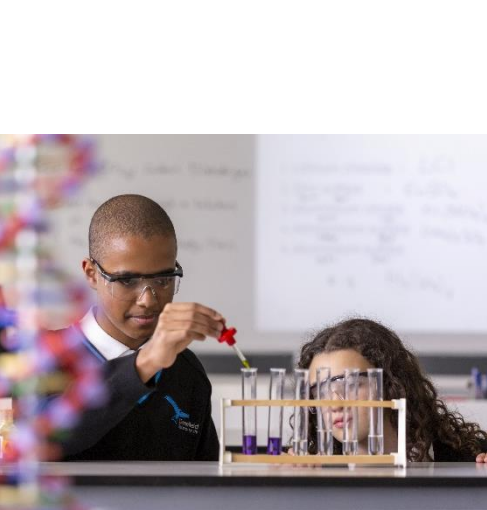


Celebrating Denefield Friday 3 March 2023





The advent of March has seen a small number of staff and students celebrate St David's Day and a larger number of staff welcome World Book Day by dressing in various exquisite and elaborate costumes. Once again competition between the English and Maths teachers was fierce, though Mrs McHugh (deputy headteacher) stole the show as Luna Lovegood from the Harry Potter novels.



During this week's assemblies, Mrs McHugh focused on a quite different character, Ignaz Semmelweis, and what his contribution to science and medicine tells us about the relative importance of different CHARACTER values. Semmelweis was determined to find out why so many more women died in childbirth when male doctors were delivering their babies, than when female nurses were responsible for delivery. After much patient research and consideration, Semmelweis realised that basic hygiene was the primary reason the male doctors performed

autopsies on cadavers and then moved straight to delivering babies without either washing their hands or cleaning their surgical instruments, transferring bacteria and disease from the corpses to the women. While Semmelweis used his ambition to succeed and resilience to setbacks in order to discover this, he proved unable to persuade the male doctors to change their practices, lacking the articulacy to explain his findings or the respect that the male doctors felt they were due. Mrs McHugh's presentation can be found [here](#). Fortunately, we now have a much better understanding of scientific practice and hygiene measures, and as a school we will continue to focus on the CHARACTER values that will help ensure students are successful: Confidence, Happiness, Articulacy, Resilience, Ambition, Courage, Tolerance, Empathy and Respect.

With best wishes for an enjoyable weekend.

Mr E Towill MA (Oxon), Headteacher



Diary dates – academic year 2022 – 2023

Thursday 9 March 2023

Year 10 Online Parents Evening – 4.00pm to 8.00pm

Friday 17 March 2023

Red nose day – Non uniform day (details TBC)

Tuesday 21 March to Thursday 23 March 2023

School show

Friday 31 March 2023

End of term



Maths

This week's update is from our Maths department

What Other Subjects Do Team Maths Enjoy?

Mrs D Gibson
Art

Miss G Pullen-Clarke
PE

Miss L Bennett
Biology

Mrs S Breakenridge
English

Miss V Anderson
Psychology

Mrs A Williams
Music

Miss N Hall
Drama & PE

Miss B Leahy
Chemistry

Mr J Wheeler
English & Geography

Miss A Tivey
Psychology

Year 11 AQA Exam Dates

Paper 1 (non-calculator): 19 May morning

Paper 2 (calculator): 7 June afternoon

Paper 3 (calculator): 14 June afternoon

Please make use of the websites that we subscribe to

MathsWatch - <https://vle.mathswatch.co.uk/vle/>
individual logins.

MyMaths - <https://www.mymaths.co.uk/>
Username: Denefield - Password: Rhombus

Another website with video explanations is CorbettMaths -
<https://corbettmaths.com/>

Good luck with revision Year 11!



Spotlight on Scientists and Mathematicians

Katherine Johnson (1918-2020)



Katherine Johnson, a prominent mathematician, is one of the first Black women to work as a NASA scientist. Johnson's love for maths and numbers started at a young age; by the age of 10 she was already enrolled in high school.

After graduating with high honours from West Virginia State College in 1937, Johnson began teaching. But in 1939, when West Virginia schools integrated, Johnson and two men were invited to join a graduate program and became the first Black students at West Virginia University.

Although Johnson left the university to start a family with her then-husband, James Goble, she began working for the National Advisory Committee for Aeronautics in 1953, an organisation that would later become NASA. She worked as a computer – long before the Microsoft or Apple machines came around – in the West Area Computing unit. The 2016 film *Hidden Figures* shares a glimpse of her life (portrayed by Taraji P. Henson) and career, alongside colleagues Dorothy Vaughn (Octavia Spencer) and Mary Jackson (Janelle Monáe). During the Space Race, Johnson was brought on to NASA's Space Task Group. There she became the first woman to co-author a paper on engineering and the first woman to sit in on mission debriefings. She helped calculate the path for both Freedom 7, the first U.S. human spaceflight, and Friendship 7, allowing Alan B. Shepard Jr. and John Glenn to safely visit space. She worked on other missions, too, including Apollo 11 and Apollo 13.

Johnson retired from NASA in 1986. In 2015, President Obama awarded her the Presidential Medal of Freedom. NASA also named a computational research facility, a satellite and a spacecraft that supplied the International Space Station in Johnson's honour. She died in 2020 at the age of 101, still an inspiration to many in the STEM field — and leaving a lasting legacy as one of the most influential Black scientists (and female) who changed history.



Alan Turing (1912 – 1954)



Computers would probably have been non-existent if it wasn't for the famous British mathematician, Alan Turing. Having been a child prodigy, he went on to pursue his PhD from the 'Princeton University.'

Soon, he became an important member of a group of code-breakers in the 'Government Code and Cypher School' (GC&CS) in Bletchley Park. He was given the daunting task of deciphering the ever-changing German codes sent through the ingenious machine, 'Enigma.' Alan made the almost impossible task possible with his 'bombe' device, which used a technique called 'Banburismus.'

Eventually, this mathematician and his team of code-breakers were successful in defeating the 'Enigma.' However, two code-breakers from his team were found out to be Soviet spies, and thus the work was declared highly confidential. For a long time, no records of Turing's work were available, and the 'Official Secrets Act' prohibited him from talking about his work to anyone.

Riddles

Answers below

Bronze level - If it took 6 people 9 hours to build a barn, how long would it take 12 people to build the same barn?

Silver level - A grandmother, two mothers, and two daughters went to a baseball game together and bought one ticket each. How many tickets did they buy in total?

Gold level - A bat and a ball cost £1.10. The bat costs one pound more than the ball. How much does the ball cost?



What Surprising Careers Use Maths?

1. Animator



An animator uses linear algebra to show rotations, translations, reflections and enlargements of objects. Animators can work in computer and console game development, television programming, internet animation, broadcast and web advertising, education, research, and military and corporate training.

2. Special Effects Director



Special effects are used to give that WOW factor to what you watch on screen. Mathematics provides the language for expressing physical phenomena and their interactions. Powerful computing equipment, numerical methods and algorithms are used to make the spectacular feats in the visual effects industry.

3. Computer Scientist



Those creating the next gadgets and apps, the millionaire behind Facebook, the secretive geniuses behind Google and the cool creative types at Apple, all will use a range of mathematics. This includes theoretical studies of algorithms and computation of implementing computing systems in hardware and software.

4. Computer Games Designer



To build a game, with many generated levels, requires serious maths skills. Games designers need to know game theory – a branch of applied maths. Video game programmers usually study trigonometry, physics, and calculus.

5. Forensic Scientist



Forensic scientists use maths principles, angles, velocity and other geometric measures, to figure out the location, time, type of weapon and impact of injury.



6. Astronaut



Astronauts use maths to make precise mathematical calculations, from how the spacecraft leaves Earth's atmosphere to how the astronauts pilot the craft.

7. Cryptanalyst



Cryptanalysts use maths; follow mathematical theorems and formulas, encode and encrypt systems and databases and devise systems for companies to help keep hackers out and to protect the company and consumer.

8. Statistician



Statisticians apply their mathematical and statistical knowledge to the design of surveys and experiments; the collection, processing, and analysis of data; and the interpretation of the experiment and survey results.

9. Architect



Maths is needed to analyse and calculate structural problems to engineer a solution that will assure that a structure will remain standing and stable.

10. Doctor



Physicians use statistics and probability to interpret tests results and when a patient is assessed for an illness, probability is used to determine the type of treatment, if any.



Riddle Answers

Bronze Level - None, because the barn is already built.

Silver Level - Three tickets because the grandmother is the mother of the two daughters who are mothers.

Gold Level - The ball costs 5p. If one pound more than 10p is £1.10, then £1.10 + 10p is £1.20. Therefore, the ball costs 5 pence.



The Wellbeing Hub

— The —
**Wellbeing
Hub**
— from Teen Tips —



Coming Up in The Wellbeing Hub this week, Feb 27th...

March's Theme: Sibling Relationships

- Blog on sibling rivalry by Alicia Drummond, Therapist & Founder of The Wellbeing Hub.
- Have you read our latest blog post on The growing concern over Chat GPT? Find it now in the resources page of The Wellbeing Hub.

Q&A

Tuesday 7th March at 6:00pm. Alicia will answer any of your questions about supporting young people. Visit the Homepage of The Wellbeing Hub to register

Childrens mental health week

Games were played, money was raised, and laughter echoed around the Da Vinci space on Friday 10 February, as the student ambassadors filled the hall with a variety of fun-filled, fabulous fundraising activities.

The enterprising event aimed simultaneously to support students' positive mental health in the school community and to raise money for the UK charity 'Mind'. The student ambassadors' hard work paid off, as they raised £266 over the lunch break to raise awareness of mental health and support a charity whose ultimate goal is to ensure they are there for young people finding things hard and to help everyone understand mental health problems, so no one has to feel alone.

Thank you to all the staff who supported, especially the House team, Mr Shaw and Mr Clare, Mr Lean, Mr Olson, Miss Wheeler and Mrs Williams, who were amazing sports being pried in the face, as they played 'Pie or Pass', and to our wonderful facilities team who helped clear up after the event. But when all was over, prize winners notified and messages of respect and love delivered one question remains - who did send that anonymous Valentines note to Mr Wright?





Extra-curricular

Please see below details of our extra-curricular activities which take place during lunch times and after school. Details can also be found [here](#) on our website.

Lunchtime		When	Room	Years
Monday				
Learn a language		12.20pm to 1.00pm	A301	All
Ukulele club		12.20pm to 1.00pm	M117	All
Tuesday				
3D printing Years 7 & 8		12.20pm to 1.00pm	M106	All
Choir		12.20pm to 1.00pm	M118	Years 8 to 13
KS3 Maths Boost		12.20pm to 1.00pm	A104	KS3
KS4 & KS5 Debate Club		12.20pm to 1.00pm	A204	KS4 & KS5
Pride Club		12.30pm to 1.00pm	A201	All
Wednesday				
Enterprise		12.20pm to 1.00pm	A304	All
Fashion		12.20pm to 1.00pm	M106	All
Thursday				
3D printing – Years 9 to 11		12.20pm to 1.00pm	M106	All
DofE drop in		12.20pm to 1.00pm	M119	Year 9, 10, 11
KS4 Maths Boost		12.20pm to 1.00pm	A104	KS4
Friday				
Chess Club		12.20pm to 1.00pm	A204	All
Feminism Club		12.20pm to 1.00pm	A201	All


After School		When	Room	Years
Monday				
Manga		3.00pm to 4.00pm	Library	All
Tuesday				
Baking		3.00pm to 4.30pm	P206	All
Books		3.00pm to 4.00pm	Library	All
Boxing		3.00pm to 4.00pm	PE	All
DT		3.00pm to 4.00pm	M106	All
Wednesday				
Warhammer		3.00pm to 4.00pm	Library	All
Thursday				
Architecture		3.00pm to 4.00pm	Art studio	All
Board games		3.00pm to 4.00pm	Library	All
CCF		3.45pm to 6.00pm	Pangbourne College	Year 10 and 11
Science Crest award		3.15pm to 4.15pm	P205	All
Friday				
Aim high		3.00pm to 4.00pm	A203	All
Greenpower		3.00pm to 4.00pm	M106	All

PE Extra-curricular


After School PE		When	Where	Years
Monday				
No PE clubs/activities				
Tuesday				
GCSE Badminton		3.15pm to 4.15pm	Sports hall	Year 10 and 11
Netball – Years 8 & 9		3.15pm to 4.15pm	Courts	Year 8 and 9
Girls rugby		3.15pm to 4.15pm	Field	All
Wednesday				
Girls Netball – Years 7		3.15pm to 4.15pm	Courts	Year 7
Handball		3.15pm to 4.15pm	Sports Hall	All
Thursday				
Basketball		3.15pm to 4.15pm	Sports Hall	All
Friday				
No PE clubs/activities				

Library news



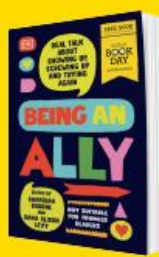
World Book Day is this week! Please download your token [here](#) to get a free book or £1 off any book at participating stores.





**Join us on
2 March 2023**



WORLD BOOK DAY

SCAN the QR code to get your World Book Day book token!

Get one of these books for FREE with your token.

TOKENS VALID:
Thursday 16 February – Sunday 26 March 2023

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*All
Yours*

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