

## A Message from the Headmaster

---

As this term comes to an end, and reports come home today, the recent experience of Progress Tests may stand out in pupils' minds. I thought I'd take a moment to share with you our perspective on assessment.

First, we should recognise that the wider culture presents us with a challenge at this point. One reason is that there is no shared narrative for why knowledge, rather than being merely a means to an end, has intrinsic value; for us, the Christian tradition explains and undergirds this central commitment. In addition, the system here in England is geared to culminate in high stakes I/GCSE examinations. These, and other factors like league tables, can lead policy makers, school leaders, teachers and parents to apply 'results pressure', which can too readily poison a child's natural delight in learning.

It must be said that a short term focus on exam-cram is not new. Charlotte Mason described this same deadening phenomenon a century ago, writing that, 'The schoolboy "crams" for an examination, writes down what he has thus learned, and behold, it is gone from his gaze forever'.

But she also offered an alternative vision: 'Final exams, or end of term exams, should not be approached like a beast to be

conquered. They should be a natural part of learning that reveals to both the teacher and student alike what ideas have become a part of the child's life, what living thoughts the child has assimilated as his own'.

At Heritage, we approach assessments in this spirit. We view our Progress Tests as a natural opportunity for pupils to demonstrate and celebrate what they have absorbed over the course of the term. Wherever we can, we prioritise open-ended questions that allow them to display what they know rather than what they don't.

Some revision is necessary. For Juniors, we emphasise it solely for factual knowledge like French vocabulary or Geography names and places. In the Senior School revision is encouraged in all subjects, with expectations increasing as pupils approach Year 11, to ensure that they are ready confidently to sit about ten I/GCSE examinations on knowledge studied over two or three years.

Rather than mere information fading from a child's gaze forever, we want to see living thoughts assimilated into a child's life; this is true knowledge. Toward this end, we aim to serve up a rich feast of inspiring content, often in the form of a story, that feeds a child's natural knowledge-hunger day by day. After exercising the muscle of attention upon that content pupils are usually asked to engage in a form of what has been called 'retrieval practice', such as an oral or written narration.

'Retrieval practice' is critical to the rhythm of routine learning and it also helps explain the value of formal assessments. It's only as we use recently acquired knowledge that we assimilate and integrate it. It becomes part of us, and we grow. Over the Christmas break, I hope you'll take the opportunity to enjoy with your children all that has captured their minds and imaginations this term. We look forward to welcoming them back for another stimulating term in the new year.

**Jason Fletcher, Headmaster**



# Hands-on Science

Our Science studies often emphasise first-hand encounters, either out in nature or through practical observations and experiments in the classroom, lab or playground. Here are some of the ways our pupils have been expanding their scientific knowledge this term.



After learning about vegetables and where they come from, Lower Prep made and tasted this yummy soup, helping them to get personally acquainted with some delicious veg.

Sometimes Enrichment can provide an opportunity for experimentation too, as in this session where Year 2 made Oobleck, a non-Newtonian fluid made of cornstarch and water, after reading Dr. Seuss's *Bartholemew and the Oobleck* with Mrs Scarlata.



While reading a biography about the Wright brothers, Year 4 designed and folded paper aeroplanes using different sizes of paper, and experimented to see whether the bigger or the smaller planes flew the furthest.



Weekly or fortnightly Nature Walks encourage detailed observation, identification and appreciation of natural phenomena. Here are Upper Prep with nature bags in hand ready to collect their findings.

In Year 3, pupils have been discussing the principle of buoyancy. To test out which materials are best suited to floating, they designed and built their own boats from recycled materials before seeing how well they floated in water.



Year 5 constructed parachutes and dropped them out of their classroom window onto the playground below, to test which variables would impact how quickly they fell.

## More Hands-on Science

---



As part of their study of light's properties, Year 6 used torches to investigate how different materials behaved when light was shone on them.

Year 7 looked at thermal energy transfer in Physics investigating which insulating material keeps a jacket potato the hottest.

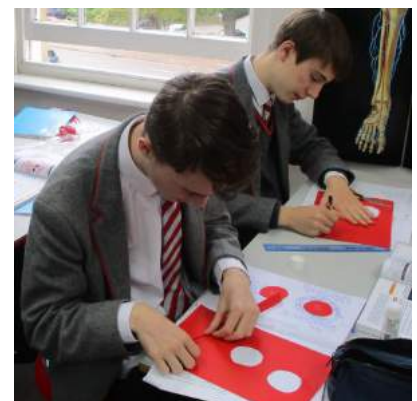


In Year 9 Biology, the pupils took to the lab to explore the effect of temperature on enzymes.

Year 8 used paper 'seeds' to help them study the dispersal of seeds by the wind during their plant reproduction topic.



In another experiment, Year 6 examined angle of reflection, looking at the way light reflected from a flat mirror.



In Biology, Year 10 made models of blood cells while studying transport in humans, solidifying their understanding of the composition of blood and the role of red blood cells.

# Mrs Pluke's Physics and Chemistry Christmas Challenge

Senior pupils and Heritage staff have been invited to take part in Mrs Pluke's Christmas challenge; a set of 30 Christmas-themed questions that test their skill and knowledge in physics and chemistry. Prizes will be awarded

for the winner and runner up in each year group; the highest scoring Year 9-11 pupil not studying physics; and the highest scoring member of staff (with handicaps for those who didn't study Physics or Chemistry). Competitors will have

the whole of the Christmas holidays to work on their answers, with submissions due to Mrs Pluke on Friday the 7th of January. See below for some of the questions; why not try a few while you're waiting for the turkey to roast?

## HOW LONG DID IT TAKE TO TRAVEL TO BETHLEHEM ASSUMING THAT THEY WALKED AT 1MPH?



Estimate the pressure exerted by the donkey's feet as it stood in the stable.

What are the main chemicals in Frankincense and Myrrh?



## WHAT FREQUENCY DID THE ANGELS SING IN IF THE SHEPHERDS HEARD EVERY NOTE?

AT WHAT SPEED DID THE HEAT TRAVEL OUT OF BABY JESUS'S BODY BEFORE HE WAS WRAPPED IN SWADDLING BANDS?

What was Baby Jesus's birth weight if his mass was 4kg? (assume  $g = 10\text{N/Kg}$ )

How much GPE did Melchior possess if he was an 80Kg man sitting on a 1.5m high camel? ( $g = 10\text{N/Kg}$ )

When we get a white Christmas, why does the local authority put a mixture of salt and sand on the roads? Explain using good physics and chemistry.



WHAT MASS OF WATER IS PRODUCED WHEN 100G OF 40% BRANDY IS Poured ON A CHRISTMAS PUDDING AND LIT? WHICH GAS IS PRODUCED AND WHAT VOLUME?

What exerts more pressure on the snow Santa's sleigh or Rudolph's hooves? Explain your answer.

## WHAT ELEMENT MAKES SANTA'S CLOTHES DIRTY AS HE DESCENDS THE CHIMNEY?

How is this element produced by an open fire? (Bonus for chemical equation.)

Draw a circuit diagram for a set of Christmas tree lights that remain on when one bulb blows.

If you shine a green torch onto Santa in a room with no other light, what will you see (assuming he is dressed in traditional red white and black?



How much momentum does Santa have if his loaded sleigh weighs 20000 tonnes, he weighs 100kg and he travels at 200m/s?

At what speed will Santa hit the ground if he falls down your chimney without touching the sides?

Height of your chimney = 10m

How many hours does Santa have to deliver presents, taking into account the spin of the earth?

WHAT IS THE CHEMICAL FORMULA OF YOUR CHRISTMAS STOCKING ASSUMING IT IS MADE FROM THE MATERIAL INVENTED IN NEW YORK AND LONDON?

Explain how coloured bulbs work.

How much energy do you use if one hundred fairy light bulbs are left on for the full 12 days of Christmas (bulb current = 0.2A, bulb voltage = 4.5V)



Estimate the spring constant for your (empty) Christmas stocking. (You might have to do a quick experiment to answer this!)

## Upper Prep Poppies

---

Here are some of the amazing poppies that Upper Prep painted with the help of Ms Robertson, showing the incredible detail and beauty of natural objects that can be captured by children even at a very young age. When expectations are high and children are provided with individual support, what results can be achieved!



## Handicraft with Juniors

---

In her book *For the Children's Sake*, Susan Macaulay Shaeffer writes, 'Charlotte Mason was ahead of her time as when she advocated that girls and boys should share the same activities both physically and in handicraft and work. They should be able to sew, cook, knit, embroider, work with clay, wood, metal.' Charlotte Mason also

believed in the importance of children having a relationship with all manner of things, writing that 'He practices various handicrafts that he may know the feel of wood, clay, leather and the joy of handling tools, that is, that he may establish a due relationship with materials.' Our Juniors have been putting these ideals into practice this term,

demonstrating great focus and attention to detail as they painstakingly hand-stitched these charming birds and owls. In producing their own handmade creations, they have fine-tuned the very practical skill of sewing and developed a familiarity with the materials that they used to make their creations.



# I am, I can, I ought, I will

---

During assemblies this half-term, I spoke to Seniors and then Infants and Juniors about the meaning of 'I am, I can, I ought, I will'; the motto of the Parents' National Educational Union (PNEU) schools that were founded by Charlotte Mason in the late 19th Century.

**I AM:** Each one of our children is unique and special. Although some may share many common traits and experiences, each has their own unique way of thinking, genetic make-up, gifts, fears, physique and life experience. Each one is therefore precious and valuable.

Henrietta Franklin, an advocate of and co-worker with Charlotte Mason in establishing the PNEU schools, articulated this idea beautifully, writing 'I am a human being, one of God's children. I am the greatest thing in God's creation: a human being with a spark of God's divine spirit in my body. Because I belong to the human family I can do the great things that other human beings have done. I have powers of doing, thinking and loving.'

Knowing that they are of infinite value should give our children confidence in who they have been made to be, and resist the pull toward unhelpful comparison — whether with peers or public figures — that results in harmful self-doubt.



**I CAN:** Young people are not puppets. They have the ability to make choices; to use willpower, action and perseverance to accomplish things; to resist pressure from peers and others, and to do what they know they're supposed to do.

Again, from Mrs Franklin: 'I can use these powers. I can change my thoughts from things that harm me and that worry me to the beautiful things I have learnt in my School: I can know the ways of activity, I can think kindly thoughts of God's creatures in the past and in the present, in this and other countries, of people who do not think as I do in religion and politics.'

**I OUGHT:** Charlotte Mason held to a Christian view of morality, writing that 'we have within us a moral judge, to whom we feel ourselves subject, and who points out and requires of us our duty.' This belief asserts that we are conscious of power to do that which we perceive we ought to do.

Our young people won't always get it right, and when they do or say the wrong thing, they may feel a sense of regret and disappointment — sometimes shame. This is a very human condition; one that the Bible calls sin. 'I ought' helps our children resolve to do what they know is right and then push on to do it.

**I WILL:** This is where resolve comes in! The dictionary definition for the word resolve is: 'Firm determination to do something' or, 'Decide firmly on

a course of action'. It is so easy for children to say to themselves things like: 'I don't want to be kind' or 'I don't feel like doing my homework', or, 'I don't want to try my hardest'. It then becomes a choice; will they give in to themselves, or will they reach for their resolve and say 'I might not feel like doing this or that but I WILL do it. I can exercise determination over my lazy self, I can exercise determination over my unkind self, I can exercise determination over my weak self and reach for my better self. I can, I ought and I will!'

In assemblies, I ended my talk by sharing the Bible story of young David defeating the giant Goliath using a simple slingshot. David could have said 'I am not up to this; I cannot do this; I don't need to do it as no one else is strong enough or doing anything and I won't do it.' Instead, he said 'I am a child of God; I can do this through God's strength; I ought to do something to help the situation and I will do something in God's strength.' You can read the story yourself in 1 Samuel 17, to see the amazing outcome!

We don't expect perfection from any child, but we can encourage them to resolve to try their best, to make good choices and to do the right thing. 'I am, I can, I ought, I will.' Though formulated more than a century ago, each of these four short phrases still provide vital and timely wisdom for our children today.

**Fiona Macaulay-Fletcher, Deputy Head**

# What We've Been Reading This Term

At Heritage, we love books, particularly 'living books.' A living book possesses literary qualities that tell a story in an absorbing way and engages the mind of the listener or reader. It is often written by an expert in his field who has a passion for his study. Living books can be used in all subjects and do not have to be just narrative. A good non-fiction book can be equally stirring. Here are the living books our Infants and Juniors have been reading this term.

## Lower Prep

Stories from *My First Bible*; a selection of Nursery Rhymes; some Beatrix Potter stories; a selection of books by Shirley Hughes, Judith Kerr, Allan Ahlberg, James Mayhew and a range of other picture books

## Upper Prep

Stories from *The Lion Children's Bible*; *The Path That Runs by the Church* by Lois Rock; *Winnie the Pooh* by A. A. Milne; poetry by A.A. Milne; *Aesop's Fables*; *Flat Stanley* by Jeff Brown; *My Naughty Little Sister* by Dorothy Edward; *Holly and Ivy* by Rumer Godden; *The Boy who Drew Birds: A Story of John James Audubon* by Jacqueline Davies; a variety of picture books



## Year 2

*Little House in the Big Woods* by Laura Ingalls Wilder; *The Red Fairy Book* edited by Andrew Lang; *The Boxcar Children* by Gertrude Chandler Warner; *The Hundred Dresses* by Eleanor Estes, *Adventures into Nature*; biography of Benjamin Franklin; *People in History* by R.J. Unstead; Bible stories from Genesis, Exodus, and Jesus' early ministry; Stories of Chopin, Mendelssohn, and Verdi from *Boyhoods of Great Composers* by Catherine Gough

## Year 3

*The Secret Garden* by Frances Hodgson Burnett; *The Borrowers* by Mary Norton; Bauer's *The Story of the World, Volume 1: The Ancient World*; Genesis from Egermeier's *Bible Story Book*; Matthew Chapters 1-9 from the New Testament; Biography of George Muller; *The Story of Mozart* by Helen L. Kaufmann

## Year 4

*The Wheel on the School* by Meindert DeJong; *Tom's Midnight Garden* by Philippa Pearce; *The Story of the World, Volume 2: The Middle Ages*; *The Young Brahms* by Sybil Deucher; Luke 1-8, and Exodus 1-14 in the Bible; biography of the Wright Brothers

## Year 5

*The Little Grey Men* by 'BB' (Denys Watkins-Pitchford); *A Wrinkle in Time* by Madeleine L'Engle; *Archimedes and The Door of Science* by Jeanne Bendick; *Dwellers* by the Rev. Theodore Wood; *The Story of the World, Volume 3: Early Modern Times*; the book of Joshua and Acts 1-8 in the Bible; *Frederic Chopin - Later Years* by Opal Wheeler

## Year 6

*Goodnight Mr Tom* by Michelle Magorian; *Journey to the River Sea* by Eva Ibbotson; *The Story of Thomas Alva Edison* by Margaret Cousins; *The Story of the World, Volume 4: The Modern World*; *The Story of Peter Tchaikovsky* by Opal Wheeler





## Year 8 Brings *Animal Farm* to the Stage

---

Several pigs, horses, a donkey, goose, hen, pigeon and other assorted farmyard animals could be seen in Panton Hall on 2nd December, playing out an adaptation of George Orwell's scathing satire based on the Russian Revolution, *Animal Farm*.

The cast bleated and grunted their rendition of 'Beasts of England,' the anthem of the revolution, as Napoleon, the megalomaniacal king pin of the pigs and a caricature of Stalin gradually 'disappeared' all threats to his power.

Having studied the novel during their English lessons in Year 7, the class understood the humour and

characters, and portrayed their parts with intelligence. The executions, shifting commandments and intolerance all went to convey a startling lesson, namely that it is one thing to say, 'All animals are equal,' and another to defend the principle in reality.

Thanks go to the audience for their enthusiastic appreciation, Mrs Lowe for teaching the songs, Mr Campbell for lighting and Evelyn for her fantastic props. Enormous thanks, too, to every member of the cast, each of whom rose to the occasion when it mattered and created a memorable production.

**Sarah Dingley, Drama Teacher and Y7/8 English Teacher**



## A Heartwarming Christmas Concert and Nativity

---

Bravo to all of the angels, shepherds, animals, singers, narrators and other performers who worked so hard to make the Nativity Play and Christmas Concert a success. The performance at St Andrew's church was a beautiful, festive and heartwarming event.

Huge thanks also to Mrs Lowe, Miss Moorhouse and all the staff who dedicated their time and talents to its production.

If you would like to contribute to the retiring collection for Amazing Grace School in Uganda, go to [stewardship.org.uk/pages/heritagechristmasappeal](http://stewardship.org.uk/pages/heritagechristmasappeal)



## Why We Study Latin

---

Latin is studied at Heritage from Year 5 onwards. It is a great benefit to be able to learn this language, which is so foundational to our own and other languages, at such an early age.

Latin teaches you to think clearly and to communicate effectively. Pupils often remark that the vocabulary and grammar they study in Latin helps them to understand English better; and how the process of translation, of looking for just the right word or phrase, helps them express themselves more precisely in their own language. Universities and employers alike value the high level of analytical thought that Latin develops and the strong communication skills it imparts.

The study of Latin also opens a window on the fascinating culture, literature and history of the

Romans, one of the greatest civilizations the world has known.

In Years 5-8, the grammatical content of our syllabus follows a spiral structure, adding new grammar whilst also covering the basics again each year so that by the end of the course grammatical content is very secure and those new to the subject have had ample chance to catch up. In Years 9 and 10 pupils studying GCSE Latin continue to work on their mastery of Latin grammar and syntax. Regular vocabulary tests, exercises and translations build and increase fluency in the language.

In addition, the stories — which are at the very heart of the course — are always fresh. It was Charlotte Mason's strong conviction that children should study living books that exposed them to the rich fabric

of great stories from history, legend and myth told in a vivid and engaging way. Story is a powerful vehicle for learning and by following a theme for a term pupils get to enjoy the story unfolding bit by bit and reaching a climax.

Such stories from the Classical World also open up fascinating areas for discussion, whether it is the morality of Odysseus, the love and tragedy of Dido or the cruelty and civilisation of the Romans.

From the second half of Year 10 pupils begin to study their set texts, drawn from original Latin prose and poetry, alongside their continuing language work. This is a real highlight of the course: studying some of the most sublime literature in the world in its original language is an immensely rich and rewarding experience.

**Jonathan Burden, Head of Seniors**



*The study of Latin and Classics as a whole is enlivened and enriched by trips to Verulamium, the Museum of Classical Archaeology and the British Museum. Here are Years 7 and 8 studying the Parthenon sculptures at the British Museum December 2018.*

## Club Highlights: Strings

---

Junior and Senior Strings meet on Mondays at lunchtime to play music together. This term, Juniors have been playing ceilidh music and some familiar Christmas Carols — while Seniors have been working on a Telemann Concerto for 4 violins, along with some lovely Shostakovich chamber pieces for 2 violins and piano. The music is often played in 2 or 3 parts to suit all abilities, and the pieces are chosen to enhance the pupils' repertoire from individual music lessons.

Next term, the pupils will be working on music for the Spring recital performance. All String players are invited to join us, whether they take lessons at school or privately. We would also love to welcome some cellists and viola players, so that we can try out some proper string quartets!



**Rachel Good, Infants Music Teacher and Violin Teacher**

## Club Highlights: Senior Christian Union

---

Senior Christian Union has met on Friday lunchtimes this term. Club sessions normally involve a game, some cake, a short talk, video or bible reading and a discussion ending in a prayer. This term we have done a whistle stop tour of the Gospel message from Genesis to Revelation and how we should respond to this. Around 15 students from years 7-11 attend regularly, with greater interest when the weather is inclement or the food plentiful! Nearly half the seniors attended the end of term party where Mrs Strachan interviewed Head Boy Freddie about what Christmas means to him. Freddie shared his thoughts on

Isaiah 9:6 and how the tiny baby Jesus was already in charge of the whole world at the moment of his birth. He encouraged us all to think about this afresh this Christmas.

*For to us a child is born, to us a son is given, and the government will be on his shoulders, And he will be called Wonderful Counselor, Mighty God, Everlasting Father, Prince of Peace. (Isaiah 9:6)*

All students are welcome to attend Christian Union whatever their personal beliefs may be.

**Rebecca Pluke, Physics (Y7-Y11) & Chemistry (Y7-Y8) Teacher**



## Meet David Campbell

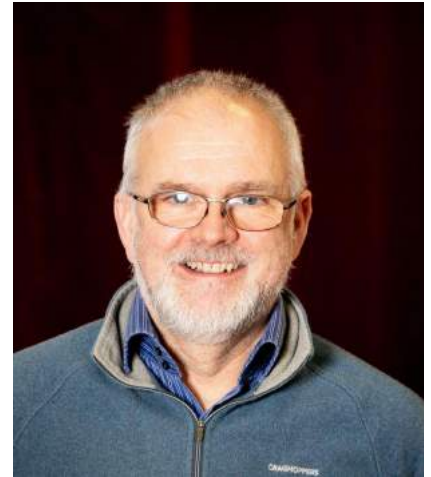
---

Please join us in welcoming David Campbell, our new Site Manager. He writes:

'I am looking forward to getting to know you all. I come to Heritage having run my own business as a handyman for almost 9 years. I am continuing to do this when not in school. Prior to that I had been an IT consultant for 12 years and, before that, a computer service

engineer. I look forward to bringing many of these skills to bear for the school. If you spot any issues let me know.

Outside of work I love music and take care of the tech for a local band, "The Suits", as well as at Grace Church. I enjoy the outdoors and am trying to bag the Wainwrights before age and creaking joints stop me.'



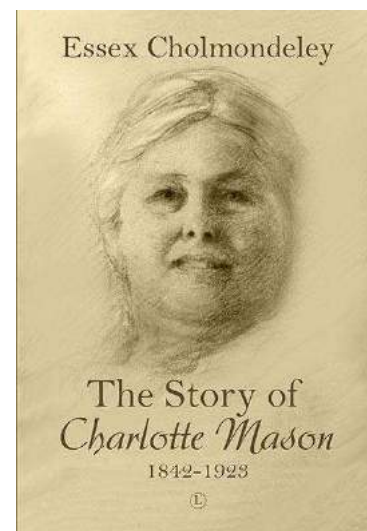
## The Story of Charlotte Mason

---

*The Story of Charlotte Mason* by Elsie Kitchen and Essex Cholmondeley tells how Charlotte, orphaned and poor at the age of sixteen, developed into an inspiring and original educational reformer. Originally published in 1960, the book was reprinted in 2000 to meet a renewed interest in her vision and, when there were not enough copies available to meet the growing demand, another reprint was recently launched.

In the foreword of this latest edition, our own Charlotte Mason Consultant Elaine Cooper writes, 'A new generation worldwide is

searching for an education that respects the personhood and development of the child within a clear framework, and one that points to a straightforward, but deeply satisfying enjoyment of life and learning. *The Story of Charlotte Mason* is thus an important book for understanding the thoughts, work and life of a remarkable late Victorian educator, a fine thinker and a much-loved friend, teacher and colleague. Written by those closest to her, *The Story* describes, like a fine painting, the colours, contours and creed of its principal subject in such a way as to make one quietly grateful for such a radiant life and legacy as hers.'



*The reprint was released on 25th November, and is available to order on Amazon.*