



High Flyers

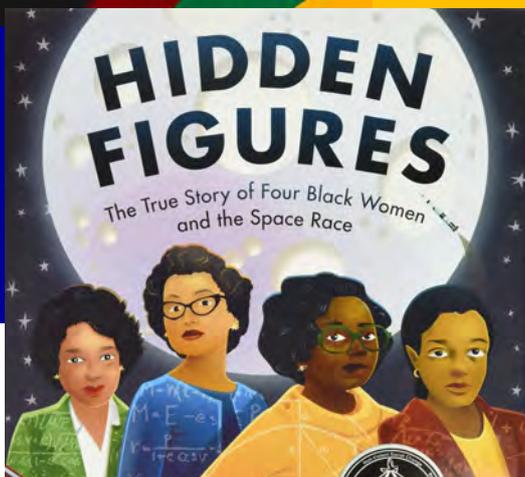


To seek, to learn, today...to shape, to lead, tomorrow

Autumn 2021 Highsted Grammar School Issue 7

Black History
MONTH

Celebrating Black History Month

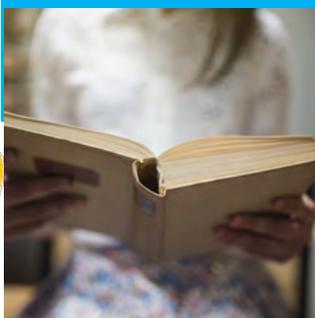


Featuring inspirational figures in Maths and Sport

Learn to use Scratch in
Computer Science



National
Poetry Day



Also inside this issue:

Halloween Pumpkin recipes



Read all about
it!

Can you make
fashion from
paper?

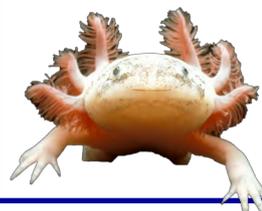


Flora & Ulysses

KATE DICAMILLO



Fascinating
Creatures



COMPETITION TIME!

Enter the Art competition or
Maths challenge to win
prizes!!!





Contents



Welcome to our seventh issue of High Flyers. This term the Highsted Virtue we have been looking at is Community Conscious.

Which subject inspires you to unlock your potential?



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National
POETRY
Day 7 October
2021





Art Competition



Paper Plate Competition



If you haven't got a paper plate, draw around a plate at home, onto a piece of paper and use that as a template to draw your design onto.

*You can put absolutely anything you like on your paper plate, it can be as simple or as detailed as you like.

*You can use any materials at all that you wish, colouring pencils, biro, collage, paint, the world is your oyster!

*Have fun and be creative.



Send your entry to:

ks3@highsted.kent.sch.uk by 3rd December 2021

Place in the subject box: Paper plate.

Include:

Your name

Your age

Your primary school



The runner up and winning photos will be displayed in Issue 8 of High Flyers.





Black History Month

PE: Who is your black sporting hero?



What is Black History Month UK and why is it celebrated?

October is Black History Month in the UK, an event that has been celebrated nationwide for more than 30 years.

The month was originally founded to recognise the contributions that people of African and Caribbean backgrounds have made to the UK over many generations. Now, Black History Month has expanded to include the history of not just African and Caribbean people but black people in general. For sport, Black History Month is a chance to celebrate a group of athletes who overcame barriers and discrimination to make it to the top in their respective sports.

Who is your black sporting hero? Who is the sportsperson who first meant everything to you, made you want to watch or participate in a particular sport?

Here are some amazing black athletes to inspire you.

Nicola Adams OBE, became the first female boxer to become an Olympic champion after winning gold at London 2012 and the first double Olympic champion following a second gold medal in Rio 2016 in the fly-weight division. She is recognised as one of the most influential people of African/African-Caribbean descent in the UK.



Dina Asher-Smith is a British sprinter. She is the fastest British woman in recorded history and became the first British woman to legally run under 11 seconds for the 100 metres in 2015. Five years ago Dina came fifth in the final of the Rio Olympics, but in 2019 she won silver in the 100m sprint and relay at the World Championships.



This summer, Simone Biles reminded us that it is OK to choose yourself.

Athletes today are not just athletes. They can be public speakers, political activists or role models and they use their platform to raise awareness, but on top of that they are humans.

Simone demonstrated that at the Tokyo Olympics, when she decided to pull out of the gymnastics team final and focus on her mental health.

"We have to protect our minds and our bodies and not just go out and do what the world wants us to do," she said.

This reminds us that life is short and that every decision we make to do, or not do, something is precious. Do what makes you happy.





Maths: Hidden Figures



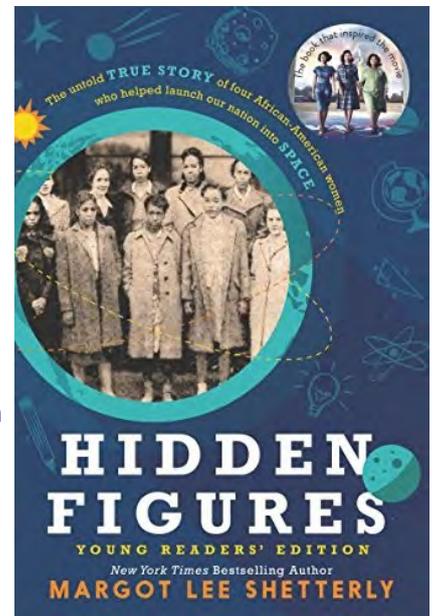
To celebrate Black History Month we would like to celebrate the lives of the black female mathematicians who worked as “human computers” for NASA.



Katherine Johnson loved to count, and despite the prejudices against both women and African Americans, she was determined to find a way to make her love of math into a career. “Math has always come easily to me. I loved numbers and numbers loved me. They followed me everywhere ... that was just the way my mind worked,” she wrote in her 2019 autobiography, *Reaching for the Moon*. “I loved to learn so much that going to school alone wasn’t enough.”

By age 10, Johnson was in high school. At 18, she’d graduated from college, earning a degree in mathematics from West Virginia State College. As one of NASA’s “human computers,” Johnson hand calculated elaborate equations... including the trajectories that helped launch the Apollo 13 mission to the moon. And when disaster befell the Apollo 13 mission, it was Johnson’s flight-path calculations that brought the astronauts safely home.

“Katherine G. Johnson refused to be limited by society’s expectations of her gender and race while expanding the boundaries of humanity’s reach,” President Barack Obama awarding Johnson the Presidential Medal of Freedom in 2015



Mary Jackson

Mary graduated from the Hampton Institute in 1942, Jackson became its first black female engineer and worked on NASA’s 4x4 supersonic pressure tunnel. At the time, the training course was not open to African Americans. She had to petition the City of Hampton to allow her to take classes with white students at the University of Virginia night classes. She won the petition and finally earned the promotion she was longing for.

After being an engineer for twenty years she then championed equal opportunities to ensure that the next generation of women from any background could freely become employed and be promoted within NASA without having to fight for their rights. Her daughter, Ms. Lewis, describes her as a ‘**scientist, humanitarian, wife, mother and trailblazer who paved the way for thousands of others to succeed, not only at NASA, but throughout this nation.**’

Dorothy Vaughan

Born in 1910 , Dorothy earned a degree in mathematics in 1929. She was one of the first women to work for the computing unit and became the first black supervisor as NACA(Later NASA).

When electronic computers were introduced she became an expert at FORTRAN a computer programming language.





English: Poetry



Celebrating National Poetry Day

TRUE OR FALSE?

- Poetry must rhyme T F
- Poetry is written in stanzas T F
- Metaphors often feature in poems T F
- Poets use a list of devices to write T F
- A haiku is a type of poem T F



TYPES OF POETRY

(you could look some of these up)
Limerick, rap, haiku, free verse, sonnet, acrostic, haiku... and there are lots more!

INTRODUCTION

'Poet' comes from the Greek word 'poietes', meaning 'someone who makes or creates things. If you want to create a poem, think about:

- Crafting your poem – look for the right words, and the best place for them
- Shaping your poem – will it rhyme or be in free verse?
- Your poem's sound and rhythm
- Form: will you use a particular one?

QUICK HINTS

- Think of something that makes you feel happy, or sad, and express your feelings.
- Think of something you would like to change, and write about it.
- Make a list of your favourite things and shape it into a poem.

GET CREATIVE!

Cut out words and phrases that you like from newspapers and magazines. Spread them out to see what you've got, move them around and group them, then arrange the cuttings to make a poem!

TRY WRITING A METAPHOR POEM LIKE THIS ONE:

The sea is...

a lion's roar,
a shark's restaurant,
a quilt of blue,
a surfer's paradise,
a leaking ink cartridge,
the eyes of a fair haired child,
the sound of the crashing waves,
a blue lagoon,
God's tears,
a mermaid's kingdom,
a flooded land,
a fish's home,
a bowl of salty water,
liquid against a velvety sky,
a place beyond the horizon,
a blue sheet hugging the shore,
blue nothingness,
a deadly suffocating machine,
water, alive,
white horses riding on a blue carpet,
fun, surfing on the blue waves,
a giant puddle,
a blue blanket in the distance,
a background.

TECHNIQUES

Alliteration: His foxy face was frantic.

Onomatopoeia: Balloons pop. Thunder roars!

Simile: He was nutty as a fruitcake.

Metaphor: Her eyes were fireflies.

Repetition: I didn't throw Frisbees. I didn't fly kites, or have any travels, or see any sights.

Answers:
False. Some poetry does rhyme, but it doesn't have to. Often, rhythm is more important.
True. A stanza is a bit like a paragraph in a piece of prose.
True. Similes and metaphors are techniques that create imagery in poetry.
False. There isn't a must have list for poetry. The vocabulary is much more important!
True. A haiku is a strict poetic form of three lines and a syllable pattern of 5,7,5.





The Axolotl

Discover

In the wild.

Life span = up to 15 years

Length: up to 30 cm

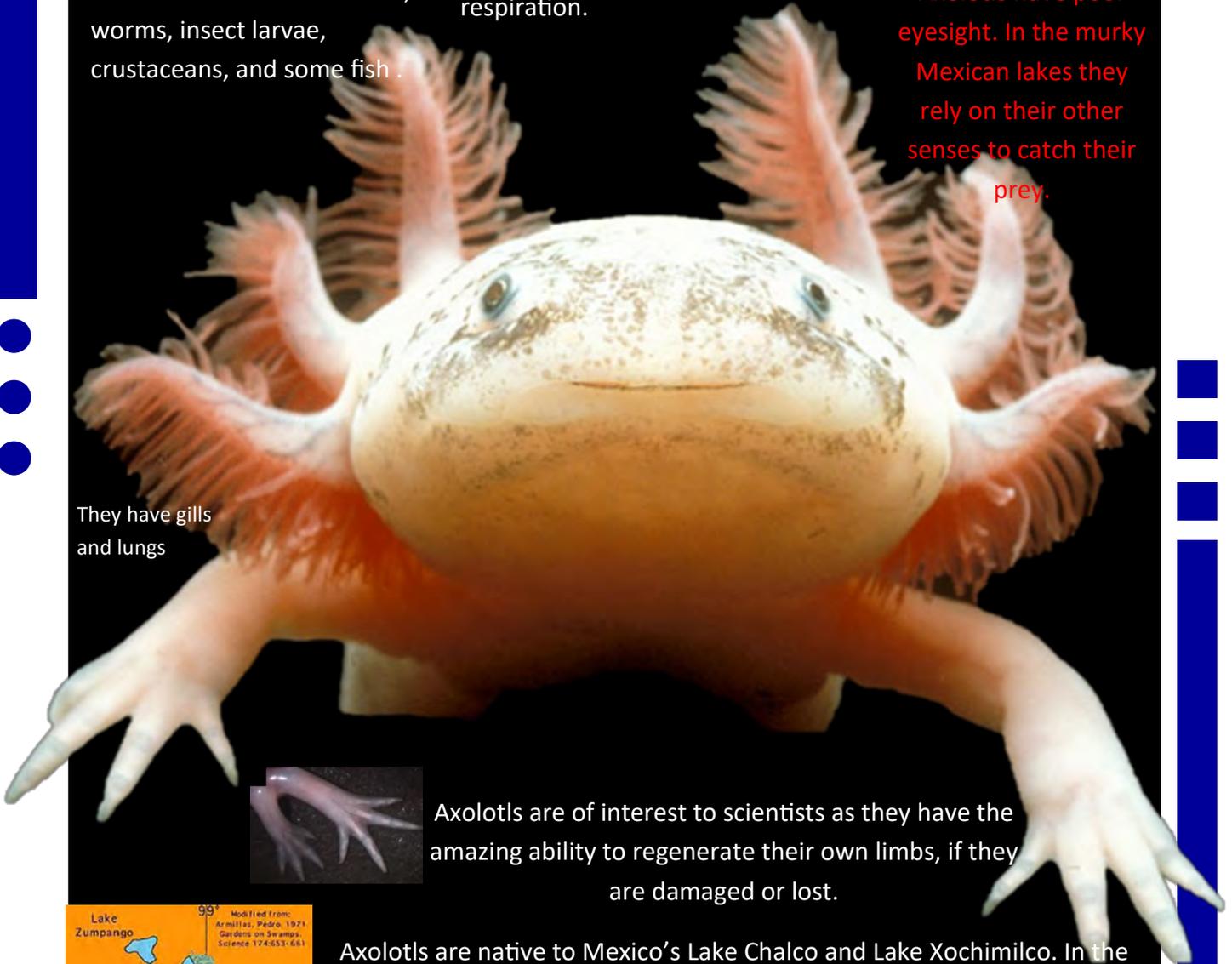
Carnivore— diet of molluscs, worms, insect larvae, crustaceans, and some fish.

Unlike a fish, an Axolotl's gills are external to it's body. The gills provide a large surface area to enable the Axolotl to absorb oxygen from the water for respiration.

Axolotls have poor eyesight. In the murky Mexican lakes they rely on their other senses to catch their prey.



They have gills and lungs



Axolotls are of interest to scientists as they have the amazing ability to regenerate their own limbs, if they are damaged or lost.



Axolotls are native to Mexico's Lake Chalco and Lake Xochimilco. In the wild they are considered to be critically endangered as their population

has decreased due to the introduction of predators to their habitat, draining and contamination of the lakes they live in and for consumption in the food trade.





Computer Science: Scratch and Microbit

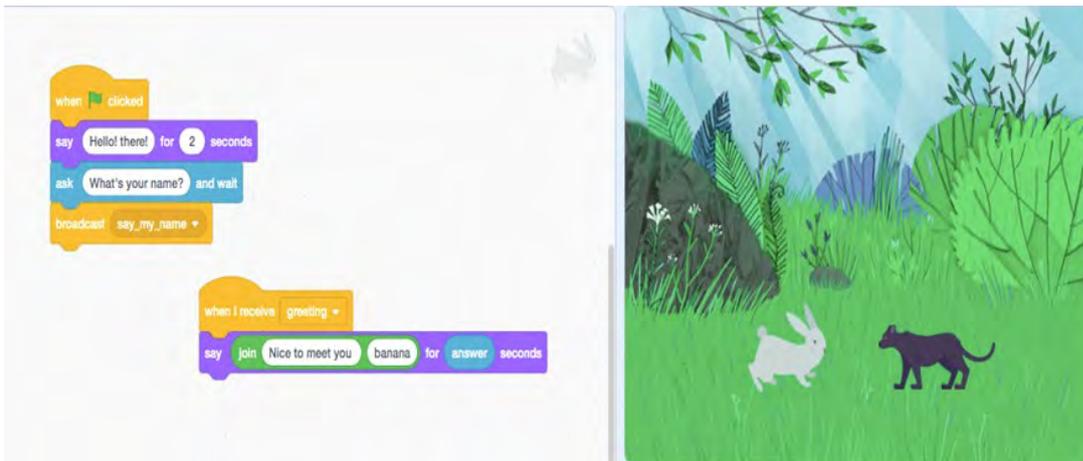


Scratch and BBC Microbit programming tools for learning

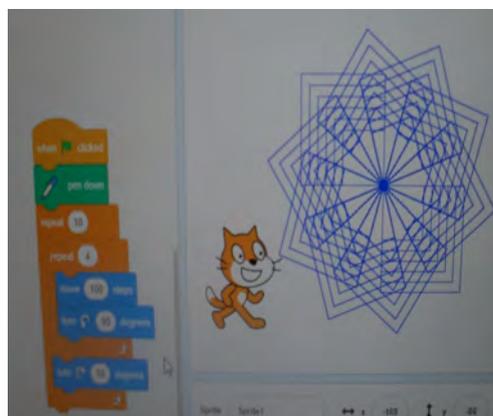
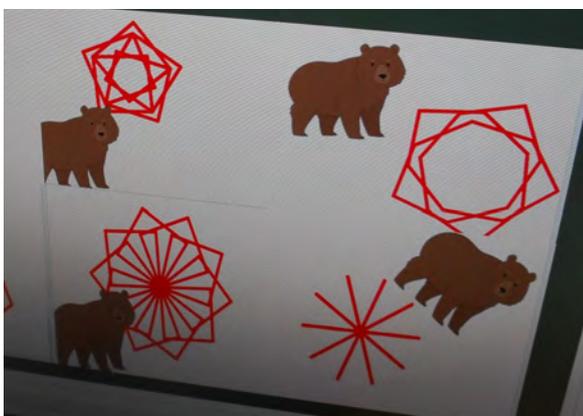
Scratch and BBC Microbit are two of the programming tools we use in school to teach programming. They are fairly easy to learn and are easily accessible on any device with an Internet connection.

What can you do with Scratch?

Scratch is very fun and addictive to use. It can be downloaded on the computer or simply accessed online. It allows you to create your own projects, like creating polynomial shapes, games such as a maze or a quiz. You can also adapt other available code to make learning more interesting. The use of building blocks makes it easier for people from any age group to learn programming. Block of codes can be built by attaching different commands together from different blocks to create a program and that allows for creativity and imagination to flow. Scratch also allows learners to be interactive with the characters by making their own story.



Below are some examples the girls have done in class using Scratch. They found Scratch very fun and easy to use. They were able to create colourful shapes and teach each other how they have done it.



Accessing the Scratch website – there are tutorials, sharable projects and support on the website.

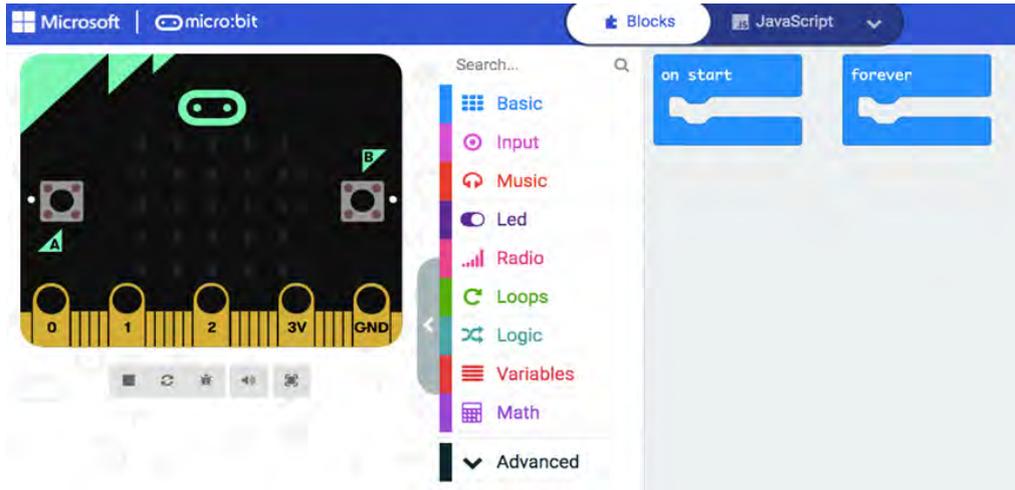
<https://scratch.mit.edu>





What can you do with BBC Microbit?

BBC Microbit is a pocket-sized programmable computer. It can be coded within seconds. The device has 25 LEDs, which light up to display the design that has been programmed onto it. There are 2 buttons that can be activated when pressed to act as inputs from the user or even by shaking the device to make it work. BBC Microbit gives students the opportunity to learn coding either using blocks or textual language.



BBC Microbit can be programmed to display messages or images. Below are some examples students have done in lessons.

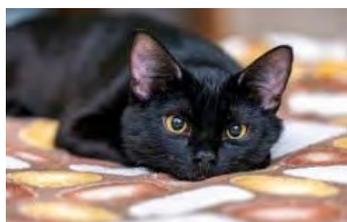
```
1 # Add your Python code here. E.g.
2 from microbit import *
3
4
5 while True:
6     display.scroll('Hello, World!')
7     display.show(Image.HEART)
8     sleep(2000)
```



Accessing the BBC Microbit website – there are tutorials and support on the website.

<https://microbit.org/code/>





What is Samhain?

Samhain - means the end of summer. It is the ancient Celtic New Year and the time of the last harvest.

Samhain is known by most people as Halloween, but for the ancient Celts and some people today it is considered a time to honour the ancestors who came before us.

Many cultures have a special day to honour their ancestor. Do you think that we do this in Britain? Should we? Give your reasons.

Good Spirits

It was a time to clean out the old and welcome the new, to reflect and forgive, and to visit loved ones - both living and dead.

The olden Celts believed that on October 31, the good spirits of the dead could come back to earth, often in the form of a black cat, to be reunited with loved ones, one last time.

Customs:



Carving Pumpkins

This tradition is based on the story of a man called Stingy Jack, who tries to trick the devil but gets trapped travelling around in the dark. Someone gives him a hot coal, which he puts into a carved turnip.

People started to make their own carvings to scare away Jack and other bad spirits.



Leftover pumpkin could be used for a few examples of recipes below:

Classic pumpkin pie, roast pumpkin seeds, pumpkin soup, pumpkin cake, pumpkin curry and pumpkin bread.



Try a taste of Pumpkin curry with chickpeas this Halloween season

Ingredients

- 1 tbsp sunflower oil
- 3 tbsp Thai yellow curry paste, or vegetarian alternative
- 2 onions, finely chopped
- 3 large stalks lemongrass, bashed with the back of a knife
- 6 cardamom pods
- 1 tbsp mustard seed
- 1 piece/1kg pumpkin or a small squash
- 250ml vegetable stock
- 400ml can reduced-fat coconut milk
- 400g can chickpea, drained and rinsed
- 2 limes
- large handful mint leaves
- naan bread, to serve



Method

STEP 1

Heat the oil in a sauté pan, then gently fry the curry paste with the onions, lemongrass, cardamom and mustard seed for 2-3 mins until aromatic. Stir the pumpkin or squash into the pan and coat in the paste, then pour in the stock and coconut milk. Bring everything to a simmer, add the chickpeas, then cook for about 10 mins until the pumpkin is tender. The curry can now be cooled and frozen for up to 1 month.

STEP 2

Squeeze the juice of one lime into the curry, then cut the other lime into wedges to serve alongside. Just before serving, tear over mint leaves, then bring to the table with the lime wedges and warm naan breads.

ENJOY!!



Secret Musician

How would you describe your job? I am an organist at a Church-playing for weddings, funerals, services though the year and Christmas and Easter celebrations

Which instrument do you play? The organ, and the piano

How old were you when you started learning? Piano age 7 then organ at 11

What did you enjoy most about learning to play? Challenging myself to learn new skills

How did you train for your career? I studied for a degree in Music, where I was an Organ scholar

What is your favourite piece of music? Seek Him Who Maketh the Seven Stars by Jonathon Dove

Your top tip for young performers? Keep practising, the better you get the more fun it will be!

Welcome to the Music page. Here you will learn about careers in music, unusual instruments and some of the signs and symbols that enable musicians from around the world to communicate through the universal language that is Music.

Lesser spotted instruments...

The French Horn

Habitat: the French horn is often found in orchestras.

Played: by blowing into the mouthpiece, creating a buzzing sound. Unlike all other brass instruments, the French horn is played with the left hand.

Looks: a very distinctive instrument, the tubing in French horn is 4 metres long.

Sounds: the French horn has a very distinctive sound, which can be both loud and triumphant or soft and melodic.

Claim to fame: Before they had valves, the French horn was played by changing the shape of the hand inside the bell.



Musical signs and Symbols

Articulation



Legato



Staccato

Did you know...

Articulation describes how the notes are being played.

Legato means the notes are played smoothly.

Staccato means the notes are short and spiky.

Can you find a recording of a Mozart Horn Concerto? He wrote three.

Can you describe the articulation being used by the French horn in the piece you choose?

Have you considered learning to play an instrument?



Use the cards below to decide which number goes in which square. There will be one whole number for each square in the 3x3 grid.

No number is bigger than 18 or smaller than 2.

The difference between the smallest and largest number is 16.

The largest number is in the centre square.

No number is repeated.

The number in the middle square is double the number to the left of the middle square.

The numbers in the first column are all odd.

The sum of the numbers in the first column is 35.

The numbers in the top row are prime numbers.

The numbers in the bottom row are all multiples of 5.

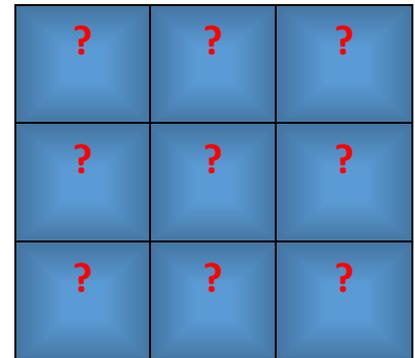
The right column contains no odd numbers.

The sum of the numbers in the bottom row is 30.

The smallest number is in the top right square.

The middle number in the right column is the sum of the numbers in the top right square and the bottom right square.

The sum of the numbers in the second column is 30.



Key words:

A **prime number** is a number that is only divisible by itself and 1. It has two distinct factors.

'**The sum of**' means the total of the numbers when added.

'**The difference**' means the result we get when we subtract the smaller number from the larger number.

Send your answers to:

ks3@highsted.kent.sch.uk

Place **Maths Challenge** in the subject box: Please include; your name, age and school.



Competition closes: 3rd December 2021

PRIZES TO BE WON!



Helpful hint 

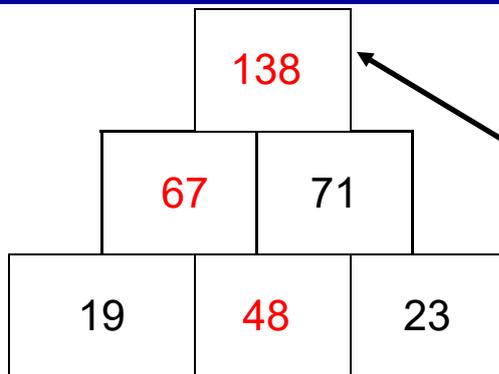
The first 10 prime numbers are: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29



Answers to Challenge 6



featured in Issue 6



Reach to the Top
Each block is the sum of the two blocks it sits on. Work out the missing values.

What am I? **KITE**

- I have 4 sides.
- I have two pairs of equal sides.
- I have one pair of equal angles.
- I contain a reflex angle.

Crack the Code— Answer the questions below. Match your answer up with a letter to spell out two words.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

1. What is $3 \times 5 - 7$? **8 (H)**
2. Two thousand divided by two thousand. **1 (A)**
3. The number of minutes in quarter of an hour, plus 1. **16 (P)**
4. Add one to the number of days in July, then halve your answer. **16 (P)**
5. Five squared. **25 (Y)**
6. Area of a rectangle with length 2, width 4. **8 (H)**
7. The number of days in two weeks, plus 1. **15 (O)**
8. The number of hours in half a day. **12 (L)**
9. The number of sides in a nonagon. **9 (I)**
10. The number of sides in a quadrilateral. **4 (D)**
11. The number of right angles in a right-angled triangle. **1 (A)**
12. A quarter of 100. **25 (Y)**

★	Start with 10	- 6	X 10	÷ 2	$\frac{3}{4}$ of this	Double this	$\frac{1}{10}$ of this	X 7	+8	= ?
										29
★★	Start with 24	X 3	÷ 2	$\frac{5}{6}$ of this	$\frac{1}{10}$ of this	Square it	X 4	+ 4	÷ 5	= ?
										8
★★★	Start with 16	X 4	$\frac{3}{4}$ of this	+ 2	10% of this	Double this	Square it	$\frac{3}{4}$ of this	÷ 15	= ?
										5

Calculation Challenge

Starting with the number in the first box, perform the operations in order, to get the final answer. Which row can you complete in two minutes?





Acknowledgements



High Flyers was produced by Highsted Grammar School to inspire Key Stage 2 students in local primary schools to develop a passion for learning across the curriculum.

With thanks to Mrs H Rennie, Mrs R Ndlovu, Miss G Springhall, Miss S Appleton, Mrs L Baker, Mrs C Field, Mrs K Aubeeluck, Mrs A Reed and Mrs C Day for sharing their enthusiasm for their subjects.

