



High Flyers

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



Autumn 2020 Highsted Grammar School Issue 1

Up close and personal with Spectacle Caimans



Special Feature: *Caiman crocodilus*

Find out how these amazing animals have adapted to their environment.



Enter the Photography competition or Maths Challenge to win prizes!!!

Find out what it takes to be a Film Director.



Also inside this issue:

The English language: a recipe with lots of ingredients and a very long cooking time!



The mystery of the Princes in the Tower

Author of the Term: Tom Palmer





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Enter the Photography competition or the Maths Challenge to be in with the chance to win prizes!

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Maths



Maisie's Mathematical Mind

Helpful Hints for Maisie's Questions:

A. Maisie walked at speed of 1.4 metres per second. How far is the bus stop from home?

Maisie's bus leaves at 7.30am. Maisie left her house at 7.20am and arrived at the bus stop with a minute to spare. This means she arrived at the bus stop at 7.29am.

Subtract 20 from 29 to get the number of minutes she was walking for.

We were given how far Maisie walks every second so we need to find out how many seconds she was walking for. *There are 60 seconds in every minute.*

Work out *number of minutes* times 60 to get the total number of seconds.

Maisie walks 1.4 metres in 1 second

14 metres in 10 seconds *(we multiplied both sides by 10)*

..... metres in 60 seconds *(multiply both sides by 6)*

..... metres in seconds *(times both sides by the number you need to get to the total number of seconds you want the distance for)*

B. How many passengers can the school bus seat at full capacity?

The bus was $\frac{3}{4}$ full. There were 18 seats left. This means that 18 seats is $\frac{1}{4}$ of the total number of seats. Think about how many quarters there are in a whole. Times 18 by this number to get the total numbers of passengers that can be seated.

C. How many years were there between the openings of the two bridges?

The new bridge was opened July 2006, the old bridge in October 1960.

If the second bridge had opened in October 2006 we could do $2006 - 1960$ to get the number of whole years. However, because the bridge opened in July, it didn't quite finish that last full year so we have to go one less.

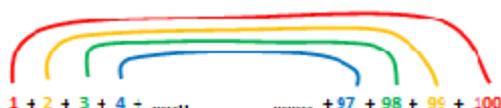
D. What is the sum of the integers (whole numbers) from 1 to 100?

When we paired the numbers, we had split the numbers into groups of two. How many groups of two are there in 100 (divide 100 by 2). Each pair made a total of 101.

To get the final sum we do 101 times the numbers of pairs we have.

E. How could we find the sum of the integers from 1 to 200?

Group your numbers into pairs that add to 201. Divide 200 by 2 to get the number of pairs. Multiply the number of pairs by 201 to get the final sum.





History



Can you help solve a 500-year-old mystery?

Not everything about the past is known.

So historians are a bit like detectives. They try to use evidence to solve mysteries from the past.

Picture this. It's 1674. Men working at the Tower of London discover two small skeletons buried under some steps. Fast forward to 1933. Bone experts say that they are skeletons of two boys. One would have been about ten when he died and the other about thirteen.

Could these be the missing Princes in the Tower? The two royal princes who went missing way back in 1483 at the Tower of London? Could they be Prince Edward, who was twelve when he went missing, and his brother Prince Richard, who was nine?



The Two Princes Edward and Richard in the Tower, 1483 by Sir John Everett Millais, 1878,

Now you might ask how two royal princes went missing in the first place...

Enter William Shakespeare, famous Tudor author of plays. In his play *Richard III* he lays out a gruesome story of murder. Richard III, who was a real king (he reigned from 1483 to 1485), was the uncle of the princes. In 1483 Richard's brother, King Edward IV, had died. The oldest prince, Edward (he was 12-years old) should have been crowned king.

But the coronation never happened – Edward was never crowned King Edward V. The princes were just put in 'safe keeping' in the Tower of London... and never seen again. Instead their uncle Richard had himself crowned King Richard III.

Shakespeare's play shows Richard plotting to kill his own nephews to get his hands on the throne.

Could Shakespeare have been right?

Here are some things to think about:

- * **The first Tudor king, Henry VII, killed Richard III in battle and took over England. Shakespeare was writing in the reign of Henry VII's granddaughter, Elizabeth I. Might he have wanted to make the Tudors look better, and Richard worse?**
- * **Some have said that the boys did not have a right to the throne because their father, Edward IV, had been secretly married to someone else before they were born.**
- * **The boys' mother, Elizabeth Woodville, never complained about them going missing. Did she know something about them?**

Fun fact: Shakespeare portrays Richard III with a big hunched back. For a long time we thought this was just made up. But in 2012 Richard's body was discovered beneath a car park in Leicester... and he actually did have a big hunched back!





England women's Cricket team seal a 5-0 win over the West Indies!

England women's Cricket captain Heather Knight says she is encouraged by her teams recent performance against the West Indies where they won all 5 one day matches! She believes that the strength and depth of the England squad will be good enough to compete for the 'big trophies' coming up in 2022.

This bumper year has a great line up of International competitions including the ODI World Cup in New Zealand, a T20 World Cup in South Africa, the Commonwealth Games in Birmingham and the Women's Ashes in Australia.



Heather Knight England women's cricket captain

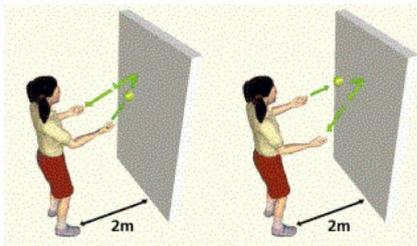
Could Cricket be the sport for you?



Being able to throw and catch a ball is one of the most important skills for when you are a fielder.

How good are you? The alternate hand wall throw test is a great way to test your throwing and catching ability.

Alternate Hand Wall Throw



Excellent	30+
Good	20-29
Average	15-19
Fair	10-14

Too hard? Then here's how to make it easier - use a bigger ball, stand closer to the wall or use two hands to catch the ball

Here's how to do the test:

- ◆ First you need to find a hard flat wall, a tennis ball and a stop watch.
- ◆ Stand about 2 metres away from the wall.
- ◆ Hold the ball in your **right** hand and throw it underarm to bounce it off the wall and catch it in your **left** hand.
- ◆ Then throw the ball straight away from your **left** hand and catch it off the wall with your **right** hand.
- ◆ Keep repeating this alternate throwing and catching for 30 seconds or until you drop the ball.
- ◆ If you drop the ball just start again and continue counting until the 30 seconds are up.
- ◆ Count how many successful catches you do in 30 seconds.
- ◆ What was your score? Try it again to see if you can improve.

Did you know.....?

The history of women's cricket can be traced back to a report in The Reading Mercury on 26 July 1745 and a match that took place between the villages of Bramley and Hambledon near Guildford in Surrey.





Are you making healthy food choices?

Eatwell guide

In the UK, the healthy eating model is known as the Eatwell Guide.

Can you identify any foods that you have eaten today? Which section of the Eatwell Guide do they belong to?

The Eatwell Guide shows the proportions in which different groups of foods are needed in order to have a well-balanced and healthy diet.



The proportions shown are representative of food eaten over a day or more, not necessarily at each meal time.

Choose a variety of different foods from each food group to help get the wide range of nutrients the body needs to stay healthy.

Healthy swaps

Below are some examples of foods that you may eat at home. Try and see if you could swap some of these with healthier options so that you are having a balanced diet.

- swap a blueberry muffin for a currant bun on its own or with some reduced-fat spread.
- swap a sugar-coated breakfast cereal for a wholegrain breakfast cereal.
- swap a few of your sugary drinks for a glass of water.



Healthier flapjack

Everyone likes a good old flapjack! Try out this healthier recipe.

Ingredients

- 150g ready-to-eat stoned dates
- 100g low-fat spread
- 3 generous tbsp agave syrup
- 50g ready-to-eat stoned dried apricots, finely chopped
- 50g chopped toasted hazelnuts
- 3 tbsp mixed seeds
- 50g raisins
- 150g porridge oats



Method

STEP 1: Heat the oven to 190C/170C fan/gas 5. Line an 18cm square tin with baking parchment. Put the dates into a food processor and blitz until they are finely chopped and sticking together in clumps.

STEP 2: Put the low-fat spread, agave syrup and dates into a saucepan and heat gently. Stir until the low-fat spread has melted and the dates are blended in. Add all the remaining ingredients to the pan and stir until well mixed. Spoon the mixture into the tin and spread level.

STEP 3: Bake in the oven for 15-20 mins until golden brown. Remove and cut into 12 pieces. Leave in the tin until cold. Store in an airtight container.

Highsted Recommends this recipe found here

<https://www.bbcgoodfood.com/recipes/healthier-flapjacks>



Cryptography

Since man first began writing there has been a desire to send messages in secret. Codes are used for secret communication, they replace words with letters, numbers or symbols. The art of writing and solving codes is called cryptography.

Enigma

The Enigma machine was used by the Germans in World War II to code secret messages. British code

breakers cracked the code and, using a machine known as the Bombe, could decipher the Nazi's secret messages helping to win the war.



Send your own coded messages

This cypher disk was invented by Leon Battista Alberti to code messages. The Yellow circle is for the plain text and the blue circle is for the encoded text.

Assembly instructions

1. Cut around the outside of each circle
2. Place the blue circle on the yellow circle
3. Poke a paper fastener through the centre of the circles
4. Spread the ends of the fastener on the back side



Alberti's Cypher disk



Code your message

Write down your message

Choose a letter on the blue circle, line it up with the A in the yellow circle (fix the circles in this position).

For each letter of your message look at the yellow circle, swap it for the letter next to it on the blue circle. Code your message.



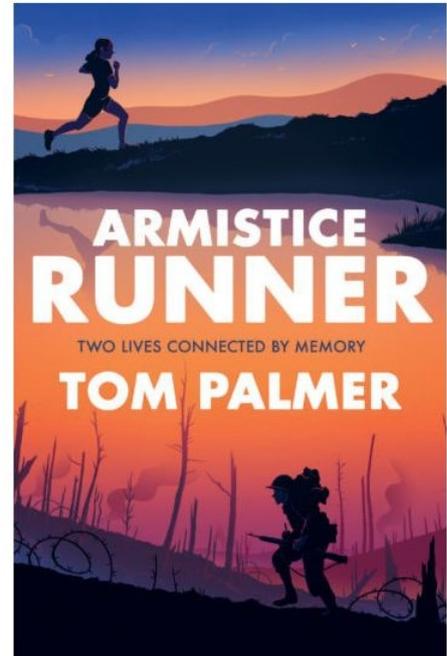
Paper fastener



Armistice Runner by Tom Palmer

Lily worries about not being good enough in her fell running competitions and is scared she's losing her Gran to Alzheimer's. Then she finds a long lost diary written by her great great grandfather in World War One. Reading about his amazing courage engages her Gran but could it also help Lily find her own strength?

I really enjoyed this story of how shared experiences echo through time. I loved the setting in the Lake District and thought the author really brought the landscape and weather alive. My favourite parts were the extracts from Ernest's diary, I got sucked into the story along with Lily and wanted to find out what happened to him in the war and why he stopped running. I thought the author handled the relationship with Lily and her Gran really well and dealt with her dementia in a very sensitive way.



Credit Barrington Stoke

"I ran like the blazes back to my company. I abandoned all my usual care and - for the first time out there in France - it felt like a real run, a fell race even.

I gave it everything, full-lunged, feeling the pain pouring into my legs, because I was desperate to tell Captain Whitaker the news."

Author of the Term: Tom Palmer

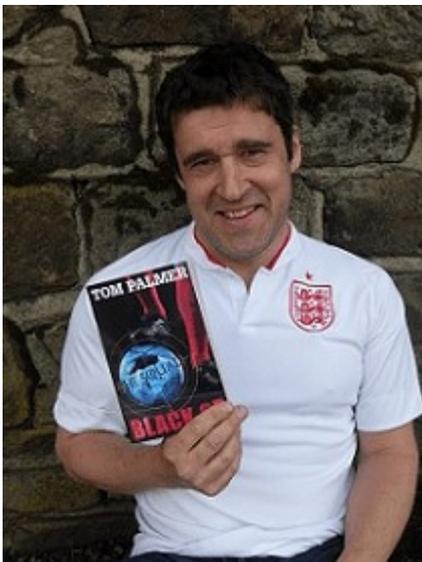


Photo: Tom Palmer from tompalmer.co.uk

Tom Palmer is a fantastic writer who has written a range of books such as the sporting series **Foul Play**, **Secret FC**, **Rugby Academy** and a series called **Wings** about the RAF. He has also written several historical books such as **D Day Dog** and **Spitfire**. Check out his website for fun activities, book trailer videos and sample chapters.

His latest book — *After the War* — is out now. Age 8+

<https://tompalmer.co.uk/armistice-runner/>



Challenge: Maths



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 $2 \times 2 \times 2 \times 2$?
2. What is the sixth triangular number?
3. What is one more than a dozen?
4. Add one to the number of days in
5. The first prime number that has two digits.
6. What is third square number?
7. How many days are there in a fortnight?
8. One quarter of 64.
9. Any number divided by itself.
10. One fifth of 100.
11. The number of angles in a triangle.
12. The number of sides in an octagon.

Answer _____



Send your answers to:

ks3@highsted.kent.sch.uk:

Place **Maths Challenge in the subject box:**



**Competition closes:
13th November 2020**

Please Include:

Your name

Your age

Your primary school

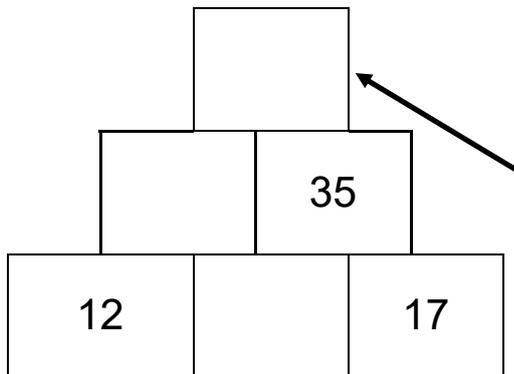
Your answer



The winner will be selected randomly from correct entries.



Answers will be in the Winter Issue of High Flyers.



Reach to the Top

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

What am I?

I have 4 straight sides.

All my sides are equal.

I have two pairs of equal angles.

I have two pairs of parallel sides.

★	Start with 23	- 7	X 5	÷ 2	$\frac{3}{4}$ of this	Double this	$\frac{1}{10}$ of this	X 7	+8	X 2	= ?
★★	Start with 48	X 3	÷ 2	$\frac{5}{6}$ of this	÷ 20	Square it	X 9	+ 19	÷ 5	+ 17	= ?
★★★	Start with 67	X 4	$\frac{3}{4}$ of this	- 1	10% of this	Halve this	Square it	$\frac{3}{4}$ of this	÷ 15	X 27	= ?

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?





High Flyers



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.

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