



# WCPS Maths Newsletter

Autumn 2 2022

## Welcome back to our maths newsletter!

We hope you all had a lovely half term break.

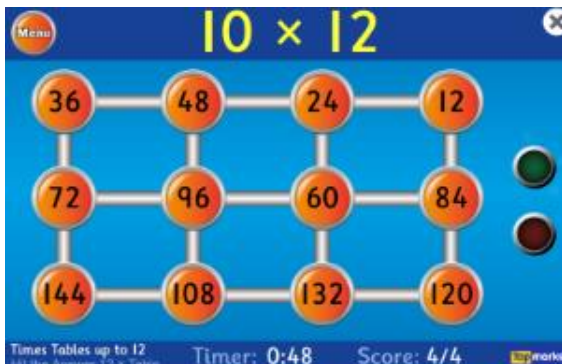
In this issue, we are looking forward to sharing all of the maths that has been going on around the school this term, including some activities you can get involved with at home.

## Learning in School:

Happy Barvember!

Barvember is a project run by White Rose Maths to promote solving problems using bar models (see Maths Resource box for more information). The project runs throughout November and we're taking part by holding a lunchtime club every Thursday for years 1 – 6 to work on these challenges. We've had a great turn out of very enthusiastic children so far!

See aside for some picture of Barvember in action.



## Helping Your Child at Home:

Number bonds and multiplication facts are a fundamental part of your child/ren's maths education. If they can recite these facts automatically, they will be able to focus on the more complex aspects of the questions and activities.

Hit the Button on Topmarks is a great free game to practise these facts to automaticity.

<https://www.topmarks.co.uk/maths-games/hit-the-button>

## Johanna Lucht (aged 30):

Johanna Lucht, born in Germany, was born deaf and developed an understanding of mathematics before she developed an understanding of language. Her passion for maths and problem solving nature lead to her studying computer science in America where there were more accessible programs for deaf individuals.

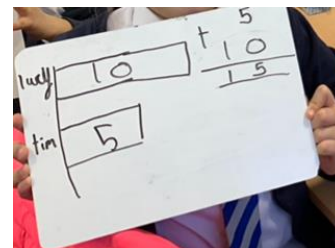
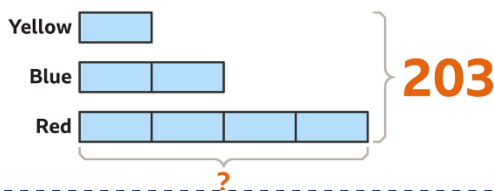
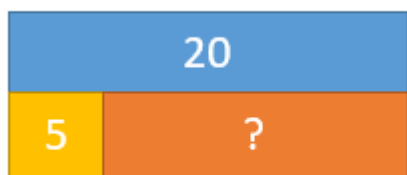
In 2017, Johanna became the first deaf engineer to work in NASA's control centre during a crewed research flight. She was responsible for looking at data related to the aircraft's GPS and how well the aircraft was performing in flight.

She believes the challenges she faced growing up as a deaf person in the hearing world prepared her for her role at NASA.



## Maths Resource: Bar Models

Bar modelling is a strategy used by children to visualise mathematical concepts and solve problems. The bar model method is pictorial – children draw bars to represent objects or quantities. As pupils develop an understanding of this method, they will be able to draw bars that are increasingly proportional; for example, a bar representing 10 cookies will be twice as long as a bar representing 5 cookies (as seen in the example below).

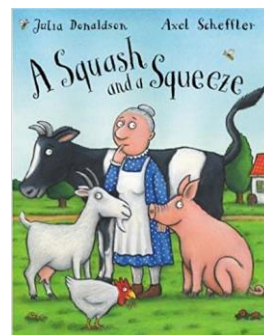


## Maths Book Recommendations:

KS1: *A Squash and a Squeeze* by Julia Donaldson

<https://www.youtube.com/watch?v=PkdX73Onf04&t=1s>

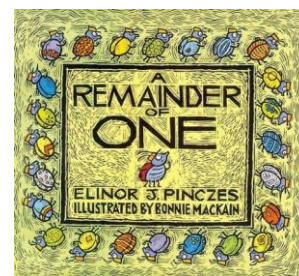
A fun problem solving book which focuses on space and measures, and the concept of making things bigger and smaller. Discuss what changed (the number of occupants) and stayed the same at each point in the story (the size of the house). Possible questions: What else? *Count how many feet/ears/eyes are in the house at different points in the story. Which animals would you have in your house and why? Is it better to have 2 pigs and 1 chicken, or 8 chicken and 1 cow? Convince me!*



KS2: *A Remainder of One* by Elinor J. Pinczes

<https://www.youtube.com/watch?v=KjinoAPsDI-Y>

Division with remainders explained through the rhyming tale of Joe and the bug army, told to march in even lines only. Will Joe manage not to be left out of the parade?



## EYFS and KS1 Challenge:

### Twelve:

The answer is 12.

What is the question?

How many different questions can you think of?

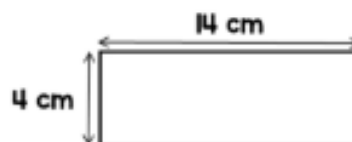


Last issue's answer = 6+3, 5+4, 6+2+1, 3+4+2, 5+3+1

## KS2 Challenge:

### Annie's Wire:

Annie has a 1 metre piece of wire. She cuts the wire into two pieces. She uses the smaller piece to make this rectangle.



She uses the other piece of wire to make a square.

What is the length of one side of the square?

Last issue's answer = red, orange, light blue, dark blue, green, purple, pink, yellow