

# Key Stage 3 Maths Parental Engagement Evening October 2022

LEARNING WITH PASSION  
RESPECTING DIFFERENCE  
NURTURING AMBITION  
CREATING OPPORTUNITY  
**THIS IS OUR COMMUNITY**

As a team of Maths teachers we aim to:

Foster a love of Maths at all levels

Develop confident problem solvers

Highlight the bigger picture

Lead to academic success



# Maths lessons at SHSSFC

- ▶ A typical Maths lesson...
  - ▶ Focus on mastery and deepening understanding
  - ▶ Develop problem solving skills
  - ▶ Interleaving
  - ▶ Varied structure: whiteboards, group work
  - ▶ Extension / support options



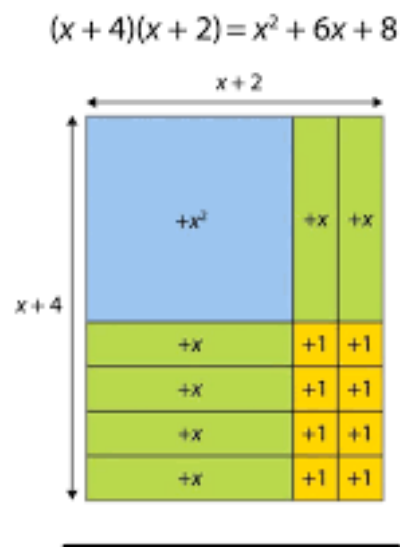
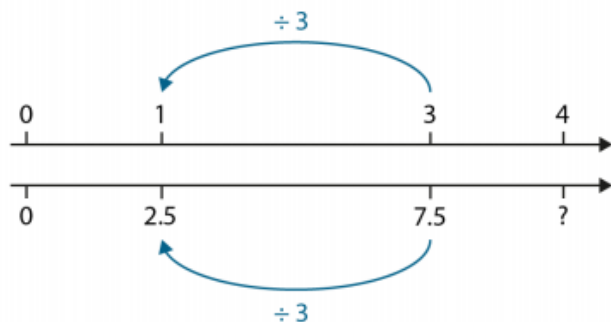
# Teaching for Mastery

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  - All pupils are capable of understanding and doing mathematics
  - One set of mathematical concepts and big ideas for all. All pupils need access to these concepts and ideas and to the rich connections between them



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## Directed Number

### Small Steps

- ▶ Understand and use representations of directed numbers
- ▶ Order directed numbers using lines and appropriate symbols
- ▶ Perform calculations that cross zero
- ▶ Adding directed numbers
- ▶ Subtracting directed numbers
- ▶ Multiplication of directed numbers
- ▶ Multiplication and division of directed numbers
- ▶ Using a calculator for directed number calculations
- ▶ Evaluating algebraic expressions with directed number
- ▶ Introduction to two-step equations
- ▶ Solving two-step equations
- ▶ Use order of operations with directed numbers
- ▶ Understand that positive numbers have more than one square root
- ▶ Explore higher powers and roots

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  - Fluency
  - Mathematical thinking

Convince me that 2 is the only even prime  
Always/Sometimes/Never: 'a square number is positive'  
Yes, no because: Range is a type of average'  
Always/Sometimes/Never:  $x^2 = 2x$

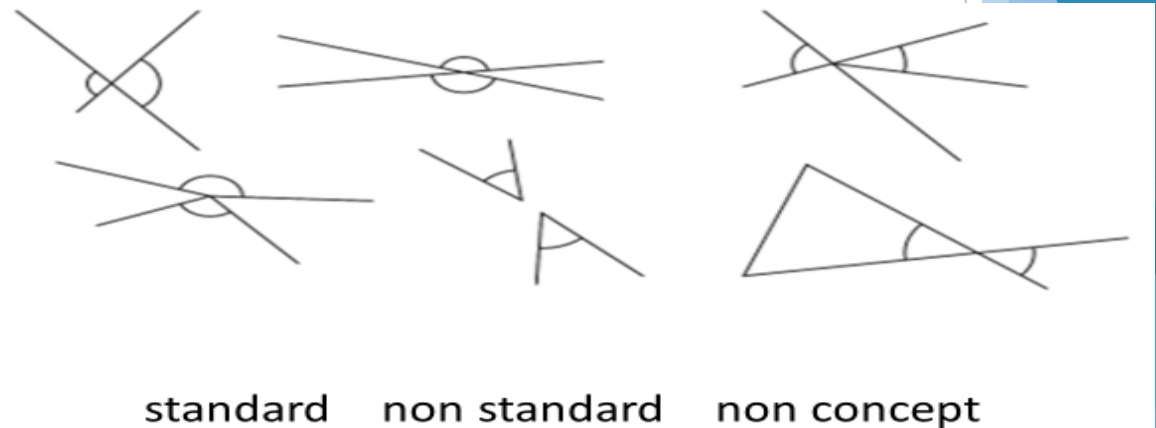
Think, pair, share: 'Is a rectangle/trapezium/square a parallelogram?'





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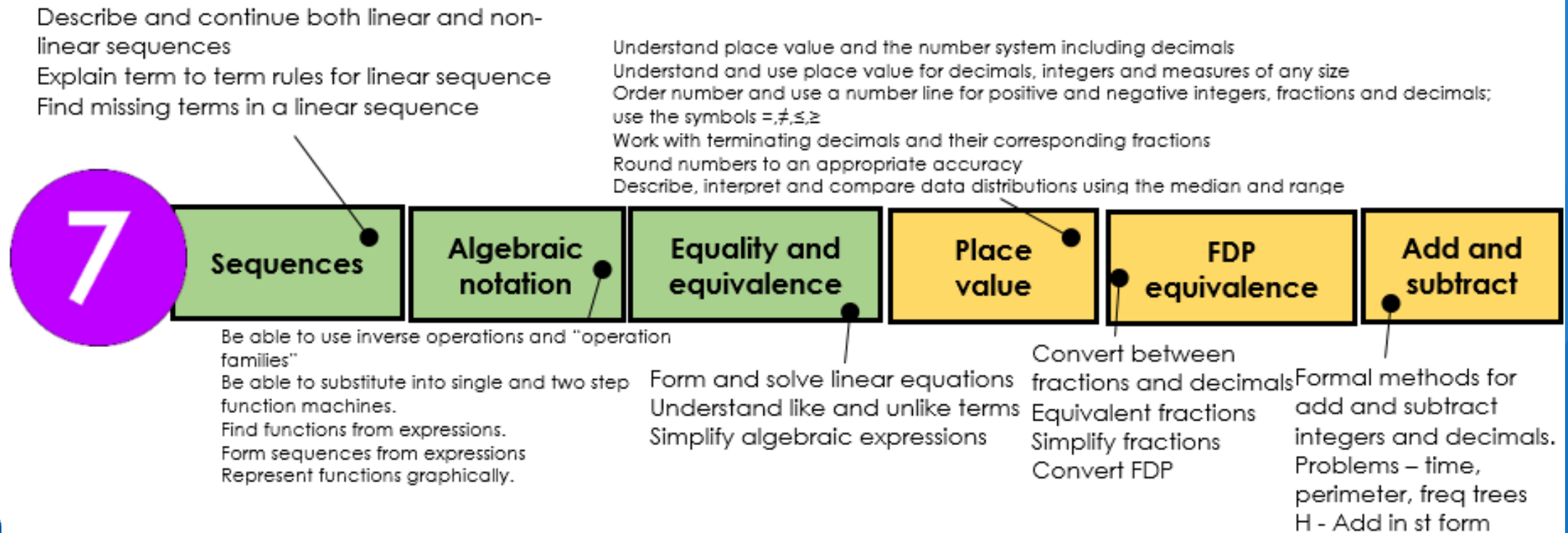
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  - Fluency
  - Mathematical thinking
  - Variation



# KS3 (Years 7-9) learning journey

Please see paper copies of our learning journey. At KS3 we have one pathway for all. The aim: By the end of Year 9 students should be confident with the foundations of number, algebra, shape and space and data handling to be able to flourish on the GCSE course.

*‘Ready for the next step in your mathematical journey’*



# What support is available?

- Maths teachers.
- Lunchtime club (Thursday UH10 from 12:15 – 12:50).
- Hegarty Maths.



# What can I do at home? Corbett Maths



Expanding Brackets  
Video 13 on [www.corbettmaths.com](http://www.corbettmaths.com)

Examples



Click here



Scan here

Workout

Question 1: Expand the following brackets

(a)  $5(y + 3)$

(b)  $4(a + 2)$

(c)  $8(w + 10)$

(d)  $3(x - 7)$

(e)  $9(s - 1)$

(f)  $2(8 - t)$

(g)  $7(4 + h)$

(h)  $10(a + 2b + 3c)$

(i)  $4(3y + 2)$

(j)  $5(2p - 1)$

(k)  $3(7a + 2)$

(l)  $9(2x - 5)$



# What can I do at home?

The National Numeracy website (<https://www.nationalnumeracy.org.uk/>) includes lots of helpful resources for people of all ages, such as supporting children, numeracy for work and managing money.

Linked to this, the Family Maths Toolkit is useful and we would encourage you to have a look when you have time:

<https://www.familymathstoolkit.org.uk/>

## A shop has special offers on fireworks “Exploding prices!”

A £10 rocket has  $\frac{3}{5}$  off – what is the new price?

A packet of sparklers was £20 and now has 15% off – how much is it now?

If you were a shopkeeper, make up some special offers for these fireworks (remember you cannot **give** them away, you must still make some money!):

Firework	Price	Special offer	New price
	£4.25		
	£8.40		
	£12.50		



# What can I do at home?

The Supporting Parents and Families section includes lots of articles and resources on topics such as:

- Helping with Maths homework
- Current teaching methods
- 'I Can't Do Maths': If you're saying it, your kids probably are too
- Improving your own maths



# What can I do at home?

Another useful section of the website is the ‘around the house’ section.

They suggest lots of ways to play with numbers and make your child feel positive about Maths.



## Around the house

- Cooking. Measure ingredients and set the timer together. Talk about fractions in cooking – for example, ask how many quarter cups make a cup.
- Talk about proportions – for example, when you make a cup of tea or squash, ask your child how much milk or how much water they’re using.
- Look for maths on the TV, in newspapers or magazines and talk about it together. You might find percentages in special offers, probability in weather reports, salaries in the job section, or simply the length of TV shows.
- Solve maths problems at home. For example: “we have 3 pizzas cut into quarters – if we eat 10 quarters, how many will be left?”



<https://www.nationalnumeracy.org.uk/helping-children-maths/activities/10-13-year-olds>

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They suggest lots of ways to play with numbers and make your child feel positive about Maths.

Finally, it's worth highlighting the National Numeracy's top tips for parents and families:

**Be positive** about maths. Don't say things like "I can't do maths" or "I hated maths at school"; your child might start to think like that themselves.

**Point out the maths in everyday life.** Include your child in activities involving maths such as using money, cooking and travelling.

**Praise your child for effort rather than talent** - this shows them that by working hard they can always improve.

**If you struggle with maths yourself** - try our free online tool the [National Numeracy Challenge](#) to improve your maths level.



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