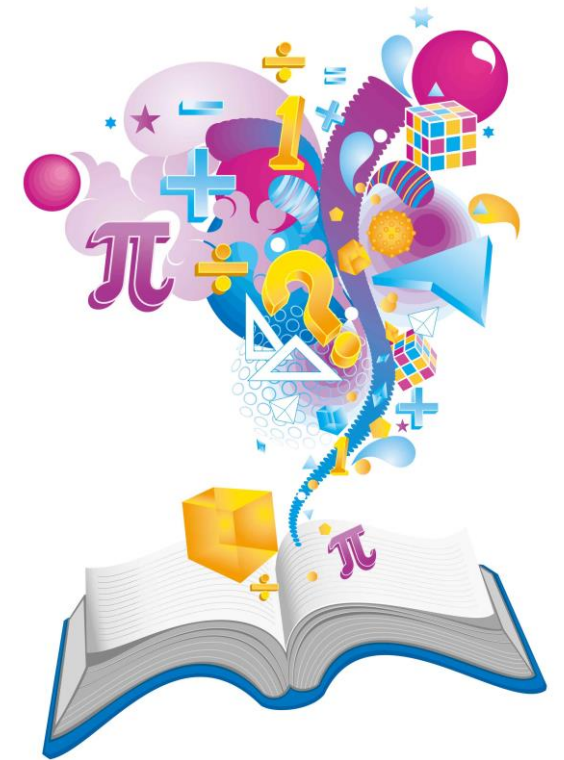


Maths Parent Workshop January 2024

Year 1





Aims of the session

- › To understand the progression in maths from Reception to Year 1
- › To understand how the four mathematical operations are taught in Year 1
- › To understand how you can support your child with their maths homework



Progression in maths from Reception to Year 1

- › Explore topics in more depth through using national curriculum links.
- › Moving from concrete to abstract.
- › Lessons are generally longer with more opportunity for peer-to-peer learning.



Addition

- › Teach a range of vocabulary linked to addition - add, plus, more, greater than, count on
- › Start by adding objects, drawing pictures to support understanding, then finally counting forward on a number line
- › Check understanding of the concepts that adding can be done in any order and that it is easier to put the largest number first

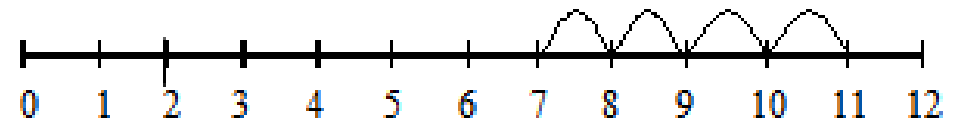
+ = signs and missing numbers

$$\begin{array}{ll} 3 + 4 = \square & \square = 3 + 4 \\ 3 + \square = 7 & 7 = \square + 4 \\ \square + 4 = 7 & 7 = 3 + \square \\ \square + \nabla = 7 & 7 = \square + \nabla \end{array}$$

Promoting covering up of operations and numbers.

Number lines (numbered)

$$7 + 4$$



Recording by - drawing jumps on prepared lines

o | constructing own lines

(Teacher model number lines with missing numbers)

(Teachers model jottings appropriate for larger numbers)



Subtraction

- › Teach a range of vocabulary linked to subtraction – take away, minus, fewer, less than
- › Start by subtracting objects, drawing pictures to support understanding
- › Learn how to find the difference between 2 numbers by counting up
- › Check understanding of the concepts that subtraction cannot be done in any order and that the answer is always smaller than the number they started with

Pictures / marks
Sam spent 4p. What was his change from 10p?

- = signs and missing numbers

$7 - 3 = \square$	$\square = 7 - 3$
$7 - \square = 4$	$4 = \square - 3$
$\square - 3 = 4$	$4 = 7 - \square$
$\square - \nabla = 4$	$4 = \square - \nabla$

Number lines (numbered)

The difference between 7 and 11
(Counting up)



Multiplication

- › Teach a range of vocabulary linked to multiplication – times, repeated addition, lots of
- › Start by multiplying using objects, drawing pictures to support understanding and finally arrays
- › Check understanding of the concepts that multiplication can be done in any order and the difference between adding two numbers and multiplying two numbers

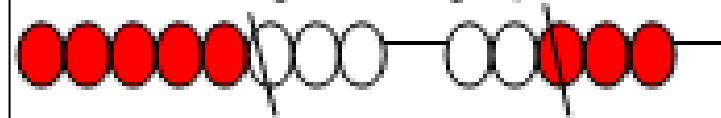
Pictures and symbols

There are 3 sweets in one bag.
How many sweets are there in 5 bags?



(Recording on a number line modelled by the teacher when solving problems)

Use of bead strings to model groups of.



Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

$$\begin{array}{r} 4 \times 2 = 8 \\ \rightarrow \quad \downarrow \\ 1 \times 2 \quad 3 \quad 4 \\ 1 \times \quad \times \quad \times \quad \times \\ 2 \times \quad \times \quad \times \quad \times \end{array}$$

$$\begin{array}{r} 3 \times 5 = 15 \\ \rightarrow \quad \downarrow \\ 1 \quad 2 \quad 3 \\ 1 \times \quad \times \quad \times \\ 2 \times \quad \times \quad \times \\ 3 \times \quad \times \quad \times \\ 4 \times \quad \times \quad \times \\ 5 \times \quad \times \quad \times \end{array}$$



Multiplication

- › Times tables - need to learn the 2, 5 and 10 times tables
- › Doubles up to double 10 by heart

Arrays and repeated addition

Also through the use of pictures and hands on activities

Grouping and sharing

Introduce mathematical vocabulary of multiply and divide.

Doubles up to 10

Children to learn number bonds

Informal jottings only - no formal written methods at Year 1

Counting in 2s, 5s and 10s

Solve one-step problems involving multiplication by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

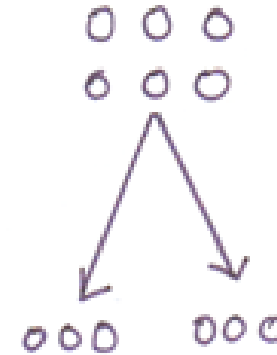


Division

- › Teach a range of vocabulary linked to division - divide, share, group
- › Start by sharing and grouping objects, drawing pictures to support understanding
- › Link to halving
- › Check understanding of the concepts that division cannot be done in any order and that all groups have to be equal

Understand division as sharing and grouping

Ideas modelled through pictures, drawings and by using counters, etc.



Solve one-step problems involving division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Halving numbers to 20

Informal jottings only - no formal written methods at Year 1

Children to work through the school number bonds scheme

Support with homework

- › Practise number bonds to 10, 20 and 50 - play games such as pairs, dominoes, online games
- › Times tables – learn 2, 5 and 10 times tables in and out of order
- › Support with resources such as a number line, hundred square, coins to practice adding money
- › Ask your child to explain how they have solved a problem, as this will demonstrate they have really understood the method used

TTRockstars and Numbots

- › Children also have full access to Times Table Rock stars and Numbots
- › Numbots is a platform where children can recall their addition and subtraction skills.
- › TTRockstars is a platform where children can practice their recall of timetables and compete with their peers.



Each term pupils are expected to learn and know the following recall facts.

Key Instant Recall Facts

Year 1 – Autumn 1

I can count forwards and backwards to 30.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

- ▶ 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, 27,
28, 29, 30

Key Vocabulary

What is 1 more than 10?

What is 1 less than 28?

Count forwards

Count backwards

They should be able to count forwards and backwards in ones, starting from any number.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Use practical resources – Your child has one potato on their plate and you give them one more. Can they predict how many they will have now?

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the numbers from 1 to 20.

Play games – You can play a game where children need to practise counting, for example <https://www.topmarks.co.uk/learning-to-count/helicopter-rescue>

Key Instant Recall Facts

Year 1 – Autumn 2

I know number bonds for 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

$$\begin{array}{lll} 0 + 10 = 10 & 2 + 8 = 10 & 4 + 6 = 10 \\ 10 + 0 = 10 & 8 + 2 = 10 & 6 + 4 = 10 \\ 10 - 10 = 0 & 10 - 8 = 2 & 10 - 6 = 4 \\ 10 - 0 = 10 & 10 - 2 = 8 & 10 - 4 = 6 \end{array}$$

$$\begin{array}{lll} 1 + 9 = 10 & 3 + 7 = 10 & 5 + 5 = 10 \\ 9 + 1 = 10 & 7 + 3 = 10 & 10 - 5 = 5 \\ 10 - 9 = 1 & 10 - 7 = 3 & \\ 10 - 1 = 9 & 10 - 3 = 7 & \end{array}$$

Key Vocabulary

What is 3 add 7?

What is 2 plus 8?

What is 10 take away 2?

What is 1 less than 10?

They should be able to answer these questions in any order, including missing number questions e.g. $6 + \bigcirc = 10$ or $10 - \bigcirc = 3$.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Use practical resources – Children can use their fingers to calculate pairs that make ten. For example, if they are holding up 4 fingers, how many are not held up?

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making 10.

Play games – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.

Each term pupils are expected to learn and know the following recall facts.

Key Instant Recall Facts

Year 1 – Spring 1

I know number bonds for each number to 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

$0 + 7 = 7$	$0 + 8 = 8$	$0 + 9 = 9$	$0 + 10 = 10$
$1 + 6 = 7$	$1 + 7 = 8$	$1 + 8 = 9$	$1 + 9 = 10$
$2 + 5 = 7$	$2 + 6 = 8$	$2 + 7 = 9$	$2 + 8 = 10$
$3 + 4 = 7$	$3 + 5 = 8$	$3 + 6 = 9$	$3 + 7 = 10$
$4 + 3 = 7$	$4 + 4 = 8$	$4 + 5 = 9$	$4 + 6 = 10$
$5 + 2 = 7$	$5 + 3 = 8$	$5 + 4 = 9$	$5 + 5 = 10$
$6 + 2 = 8$	$6 + 2 = 8$	$6 + 3 = 9$	$6 + 4 = 10$
$7 + 1 = 8$	$7 + 1 = 8$	$7 + 2 = 9$	$7 + 3 = 10$
$8 + 0 = 8$	$8 + 0 = 8$	$8 + 1 = 9$	$8 + 2 = 10$
		$9 + 0 = 9$	$9 + 1 = 10$
			$10 + 0 = 10$

Key Vocabulary

What do I **add** to 5 to make 10?

What is 10 **take away** 6?

What is 3 **less than** 10?

How many **more than** 2 is 10?

They should be able to answer these questions in any order, including missing number questions e.g. $1 + \bigcirc = 10$ or $9 - \bigcirc = 8$.

Top Tips

The secret to success is practising **little and often**. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Key Instant Recall Facts

Year 1 – Spring 2

I know number bonds to 20.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

$0 + 20 = 20$	$20 + 0 = 20$	$20 - 0 = 20$	$20 - 20 = 0$
$1 + 19 = 20$	$19 + 1 = 20$	$20 - 1 = 19$	$20 - 19 = 1$
$2 + 18 = 20$	$18 + 2 = 20$	$20 - 2 = 18$	$20 - 18 = 2$
$3 + 17 = 20$	$17 + 3 = 20$	$20 - 3 = 17$	$20 - 17 = 3$
$4 + 16 = 20$	$16 + 4 = 20$	$20 - 4 = 16$	$20 - 16 = 4$
$5 + 15 = 20$	$15 + 5 = 20$	$20 - 5 = 15$	$20 - 15 = 5$
$6 + 14 = 20$	$14 + 6 = 20$	$20 - 6 = 14$	$20 - 14 = 6$
$7 + 13 = 20$	$13 + 7 = 20$	$20 - 7 = 13$	$20 - 13 = 7$
$8 + 12 = 20$	$12 + 8 = 20$	$20 - 8 = 12$	$20 - 12 = 8$
$9 + 11 = 20$	$11 + 9 = 20$	$20 - 9 = 11$	$20 - 11 = 9$
$10 + 10 = 20$		$20 - 10 = 10$	

Key Vocabulary

What do I **add** to 5 to make 20?

What is 20 **take away** 6?

What is 3 **less than** 20?

How many **more than** 16 is 20?

They should be able to answer these questions in any order, including missing number questions e.g. $19 + \bigcirc = 20$ or $20 - \bigcirc = 8$.

Top Tips

The secret to success is practising **little and often**. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Use what you already know – Use number bonds to 10 (e.g. $7 + 3 = 10$) to work out related number bonds to 20 (e.g. $17 + 3 = 20$).

Use practical resources – Make collections of 20 objects. Ask questions such as, "How many more conkers would I need to make 20?"

Make a poster – We use Numicon at school. You can find pictures of the Numicon shapes here: bit.ly/NumiconPictures – your child could make a poster showing the different ways of making 20.

Play games – You can play number bond pairs online at www.conkermaths.com and then see how many questions you can answer in just one minute.

Each term pupils are expected to learn and know the following recall facts.

Key Instant Recall Facts

Year 1 – Summer 1

I know doubles and halves of numbers to 10.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

$0 + 0 = 0$	$\frac{1}{2}$ of 0 = 0
$1 + 1 = 2$	$\frac{1}{2}$ of 2 = 1
$2 + 2 = 4$	$\frac{1}{2}$ of 4 = 2
$3 + 3 = 6$	$\frac{1}{2}$ of 6 = 3
$4 + 4 = 8$	$\frac{1}{2}$ of 8 = 4
$5 + 5 = 10$	$\frac{1}{2}$ of 10 = 5
$6 + 6 = 12$	
$7 + 7 = 14$	
$8 + 8 = 16$	
$9 + 9 = 18$	
$10 + 10 = 20$	

Key Vocabulary

What is **double** 9?
What is **half** of 6?

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these KIRFs while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact of the day. If you would like more ideas, please speak to your child's teacher.

Ping Pong – In this game, the parent says, "Ping," and the child replies, "Pong." Then the parent says a number and the child doubles it. For a harder version, the adult can say, "Pong." The child replies, "Ping," and then halves the next number given.

Practise online – Go to www.conkermaths.com and see how many questions you can answer in just 90 seconds.

Key Instant Recall Facts

Year 1 – Summer 2

I can tell the time.

By the end of this half term, children should know the following facts. The aim is for them to recall these facts **instantly**.

Children need to be able to tell the time using a clock with hands. This target can be broken down into several steps.

- ▶ I can tell the time to the nearest hour.
- ▶ I can tell the time to the nearest half hour.

Key Vocabulary

Twelve o'clock
Half past two

Top Tips

The secret to success is practising **little** and **often**. If you would like more ideas, please speak to your child's teacher.

Talk about time - Discuss what time things happen. When does your child wake up? What time do they eat breakfast? Make sure that you have an analogue clock visible in your house or that your child wears a watch with hands.

Play "What's the time Mr Wolf?" – You could also give your child some responsibility for watching the clock :

Read books about time