

I can recall number bonds to help me add and subtract

Children should be able to recall the following facts:

Rainbow to 10



$$\begin{aligned} 0 + 10 &= 10 \\ 1 + 9 &= 10 \\ 2 + 8 &= 10 \\ 3 + 7 &= 10 \\ 4 + 6 &= 10 \\ 5 + 5 &= 10 \end{aligned}$$

$$\begin{aligned} 10 + 0 &= 10 \\ 9 + 1 &= 10 \\ 8 + 2 &= 10 \\ 7 + 3 &= 10 \\ 6 + 4 &= 10 \\ 5 + 5 &= 10 \end{aligned}$$

RAINBOW to 100



$$\begin{aligned} 0 + 100 &= 100 & 100 + 0 &= 100 \\ 10 + 90 &= 100 & 90 + 10 &= 100 \\ 20 + 80 &= 100 & 80 + 20 &= 100 \\ 30 + 70 &= 100 & 70 + 30 &= 100 \\ 40 + 60 &= 100 & 60 + 40 &= 100 \\ 50 + 50 &= 100 & 50 + 50 &= 100 \end{aligned}$$

Key Vocabulary

Number bond: pairs of numbers which add up to a certain number.

Addend: A number which is added to another number

Addition: adding two numbers or more to produce a total sum

Total sum: the answer for adding two or more addends

Subtract: When you find the difference between two values

Key Questions

What number bonds are there to 10/20/50/100?

What is the addend for 12 to make 20?

What is 100 subtract 30?

Top Tips

- The secret to success is practising little and often. Try practising these KIRFs while walking to school or during a car journey.
- Play these online games:

<https://www.topmarks.co.uk/Search.aspx?q=number%20bond%20games>

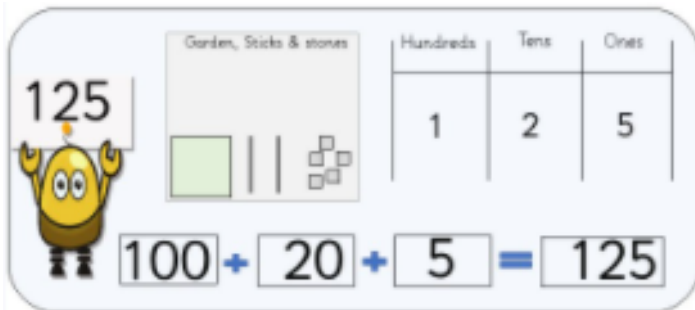
<https://www.fun2think.com/maths/number-bond-games/>

I can partition three-digit numbers by their place value

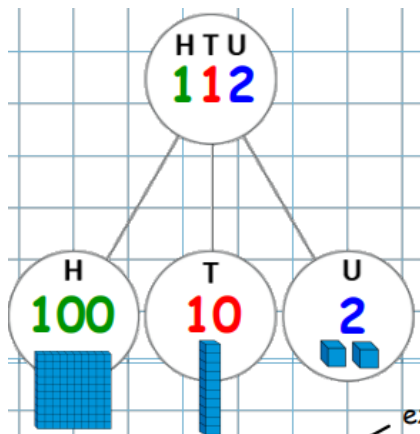
Children should be able to recall the following facts:

Three-digit numbers are made up of hundreds, tens and ones.

The place value alters the value of each digit; a 3 in the ones is different to a 3 in the hundreds, as the value is now 300.



We can represent this partitioning using a part-whole model, as shown below.



Top Tips

- The secret to success is practising little and often.
- Play these games: <https://mathsframe.co.uk/en/resources/resource/554/Dienes-Identify-and-Represent-Numbers>
- Barrier game—This game is played in pairs. Sit opposite each other, with a barrier between you. One person describes the number e.g. I have 4 hundreds. The other person has to write the number and see if they are correct.

Key Vocabulary

Digit: One written number that makes up part of a whole number

Part-whole model: A way to represent partitioning a number

Partition: To split a number into its parts

Place value: The value of each digit

Recombine: To add the parts back together to make the whole

Key Questions

How many tens are there in 320?

My number is 271, I have 7 ones. Do you agree?

What's the biggest/smallest three-digit number you can make?

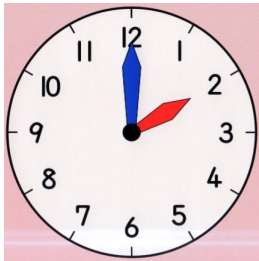
I can tell the time to the hour and the half hour

Children should be able to recall the following facts:

The short hand identifies the hour mark.

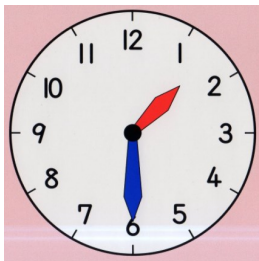
The long hand identifies the minutes, including the half hour.

When the short hand points to a number and the long hand points to 12, this is X o'clock.



It's two o'clock.

When the short hand points to between two numbers and the long hand points to 6, this is half past X.



It's half past one.

Top Tips

- The secret to success is practising little and often.
- There are lots of videos to help with telling the time, such as <https://www.youtube.com/watch?v=3Posbu-VKxU>
- Play these games: <https://www.topmarks.co.uk/time/teaching-clock>
- Make the telling of time enjoyable, such as counting down until doing something fun happens or timing how long it takes to complete an activity. Have rewards for when the time is told correctly or make it a challenge between two people to get the most correct.

Key Vocabulary

Short hand: The shorter of the two hands on an analogue clock face.

Long hand: The longer of the two hands on an analogue clock face.

O'clock: Tells you the hour when telling the time

Half past: When 30 minutes have passed of an hour and the long hand is halfway around

Key Questions

What time is it when the long hand is on 12 and the short hand is on 4?

What time is it when the long hand is on 6 and the short hand is between 7 and 8?

What time is half an hour after 5 o'clock?

Jack says it is 8 o'clock when the long hand points at 8 and the short hand points at 12, is he right?

I can recall multiplication facts.

Children should be able to recall the following facts:

$2 \times 0 = 0$	$5 \times 0 = 0$	$10 \times 0 = 0$
$2 \times 1 = 2$	$5 \times 1 = 5$	$10 \times 1 = 10$
$2 \times 2 = 4$	$5 \times 2 = 10$	$10 \times 2 = 20$
$2 \times 3 = 6$	$5 \times 3 = 15$	$10 \times 3 = 30$
$2 \times 4 = 8$	$5 \times 4 = 20$	$10 \times 4 = 40$
$2 \times 5 = 10$	$5 \times 5 = 25$	$10 \times 5 = 50$
$2 \times 6 = 12$	$5 \times 6 = 30$	$10 \times 6 = 60$
$2 \times 7 = 14$	$5 \times 7 = 35$	$10 \times 7 = 70$
$2 \times 8 = 16$	$5 \times 8 = 40$	$10 \times 8 = 80$
$2 \times 9 = 18$	$5 \times 9 = 45$	$10 \times 9 = 90$
$2 \times 10 = 20$	$5 \times 10 = 50$	$10 \times 10 = 100$
$2 \times 11 = 22$	$5 \times 11 = 55$	$10 \times 11 = 110$
$2 \times 12 = 24$	$5 \times 12 = 60$	$10 \times 12 = 120$

They need to confidently and accurately recall all of the multiplication facts. They should also recognise multiplications are commutative e.g. can be completed in any order, 2×5 and 5×2 both equal 10.

Children also associate the multiplication facts with the related division facts e.g. $3 \times 4 = 12$ and $12 \div 2 = 6$ or $12 \div 6 = 2$.

Top Tips

- The secret to success is practising little and often.
- Every child has access to Times Table Rock Stars
- There are lots of videos to help with learning times tables <https://www.youtube.com/watch?v=QtNnKuCJjRE>
- Play these games: <https://www.topmarks.co.uk/maths-games/mental-maths-train>
- Make the learning of times tables enjoyable, such as having a competition between children and adults or multiplying how many sweets you have!

Key Vocabulary

Multiplying: The repeated addition of the same number

Division facts: The number sentences related to times tables

Multiplicand: The number being multiplied

Multiplier: The number that is doing the multiplying

Product: The answer

Commutative: Multiplication can happen in any order

Key Questions

What is 6 times 5?

What does commutative mean?

If I know that 4×2 is 8, what else do I know?

What are the division facts for 8×10 ?

If my multiplier is 5 and the product is 25, what is the multiplicand?

I can recall multiplication facts.

Children should be able to recall the following facts:

3x table	4x table
$0 \times 3 = 0$	$0 \times 4 = 0$
$1 \times 3 = 3$	$1 \times 4 = 4$
$2 \times 3 = 6$	$2 \times 4 = 8$
$3 \times 3 = 9$	$3 \times 4 = 12$
$4 \times 3 = 12$	$4 \times 4 = 16$
$5 \times 3 = 15$	$5 \times 4 = 20$
$6 \times 3 = 18$	$6 \times 4 = 24$
$7 \times 3 = 21$	$7 \times 4 = 28$
$8 \times 3 = 24$	$8 \times 4 = 32$
$9 \times 3 = 27$	$9 \times 4 = 36$
$10 \times 3 = 30$	$10 \times 4 = 40$
$11 \times 3 = 33$	$11 \times 4 = 44$
$12 \times 3 = 36$	$12 \times 4 = 48$

Key Vocabulary

Multiplying: The repeated addition of the same number

Division facts: The number sentences related to times tables

Multiplicand: The number being multiplied

Multiplier: The number that is doing the multiplying

Product: The answer

Commutative: Multiplication can happen in any order

They need to confidently and accurately recall all of these multiplication facts.

They should also recognise that multiplications are commutative e.g. can be completed in any order, 3×7 and 7×3 both equal 21.

Children also need to be able to associate the multiplication facts with the related division facts e.g. $3 \times 4 = 12$ and $12 \div 3 = 4$ or $12 \div 4 = 3$

Key Questions

- ⇒ What is 5 times 4?
- ⇒ What does commutative mean?
- ⇒ If I know that 3×4 is 12, what else do I know?
- ⇒ What are the division facts for 9×3 ?

Top Tips

The secret to success is practising little and often.

- Every child has access to Times Table Rock Stars
- Play this games: Hit the Button - Quick fire maths practise for 6-11 year olds (topmarks.co.uk)
- Make the learning of times tables enjoyable, such as having a competition between children and adults or multiplying how many sweets you have!