Key Instant Recall Facts

Year 5 – Autumn 1

I know decimal number bonds to 1 and 10.

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

This list includes some examples of facts that children should be able to work out quickly:

0.6 + 0.4 = 1	3.7 + 6.3 = 10
0.4 + 0.6 = 1	6.3 + 3.7 = 10
1 – 0.4 = 0.6	10 – 6.3 = 3.7
1 – 0.6 = 0.4	10 – 3.7 = 6.3
0.75 + 0.25 = 1	4.8 + 5.2 = 10
0.25 + 0.75 = 1	5.2 + 4.8 = 10
1 – 0.25 = 0.75	10 – 5.2 = 4.8
1 – 0.75 = 0.25	10 – 4.8 = 5.2

Key Vocabulary

What do I **add** to 0.8 to make 1?

What is 1 **take away** 0.06?

What is 1.3 **less than** 10?

How many more than 9.8 is 10?

What is the **difference** between 0.92 and 10?

They should be able to answer missing number questions such as 0.49 + ◯ = 10 or 10 – ◯ = 7.2 with little hesitation.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Can you practise these key facts 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.

Buy one get three free – If your child knows one fact (e.g. 8.5 + 1.5 = 10), can they tell you the other three facts in the same fact family?

Use number bonds to 100 – Encourage your child to think about how they can use the number facts they already know. For example, if they know that 62 + 38 = 100, then they can work out 6.2 + 3.8 = 10 by dividing by 10.

Play games – For example, try playing 'pairs' where the cards have to add up to a given number.

Practise online – www.topmarks.co.uk/maths-games/hit-the-button is great for practising quick recall.

www.conkermaths.org/cmweb.nsf/products/numberbondpairs.html has a pairs game to play.

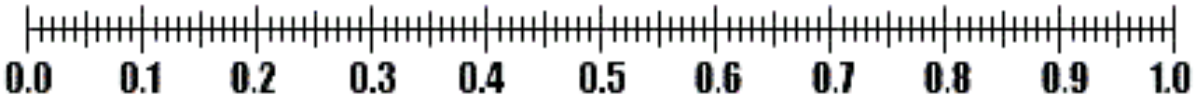
See overleaf for how this relates to learning in school

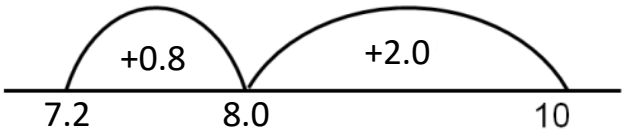
I know number bonds to 100.

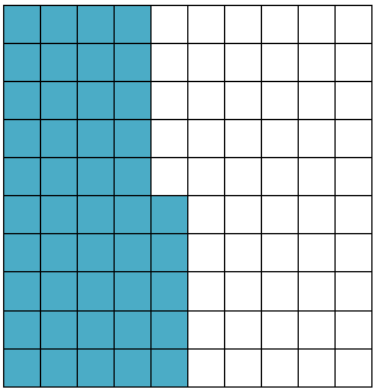
Learning in School

In school, we practise number bonds regularly by counting forwards and backwards from different starting numbers and through quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:







Learning number bonds helps children with calculations such as these:

50 – 34.5 *20 – 19.83* *7.4 + 5.8*

$$\begin{array}{r} 72.8 \\ +\ 54.6 \\ \hline 127.4 \\ \hline 1 \end{array}$$

It will also help them to solve real life problems such as:

If I buy two books that cost £7.28 each, what is the change from £20.00?

A lottery winner won £2.3million! She gave some away and was left with £1.87million. How much did she give away?

Key Instant Recall Facts

Year 5 – Autumn 2

I know the multiplication and division facts for all times tables up to 12 x 12.

By the end of this half term, children should know all the times tables facts, including division and recall them **instantly**.

For each times table fact, the children should be able to derive four facts, two multiplication and two division. For example:

If they know 7 x 6 = 42, then they should also know 6 x 7 = 42, 42 ÷ 6 = 7 and 42 ÷ 7 = 6.

Key Vocabulary

What is 12 **multiplied by** 6?

What is 7 **times** 9?

What is 84 **divided by** 7?

They should be able to answer these questions in any order, including missing number questions e.g. 7 × ◯ = 28 or ◯ ÷ 6 = 7.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Can you practise these key facts 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 family of the day. If you would like more ideas, please speak to your child's teacher.

Speed Challenge – Take two packs of playing cards and remove the kings. Turn over two cards and ask your child to multiply the numbers together (Ace = 1, Jack = 11, Queen = 12). How many questions can they answer correctly in 2 minutes? Practise regularly and see if they can beat their high score.

Time Challenge – How quickly can your child answer ten multiplication or division facts? Can they set a personal best time and then try to beat their record?

Practise online – Try these activities:
www.conkermaths.org/cmweb.nsf/products/conkerkirfs.html
nrich.maths.org/1252
learn-timestables.com
www.bbc.co.uk/skillswise/game/ma13tabl-game-tables-grid-find
www.transum.org/Software/Game/Connect4/

Display them – Write the hard-to-remember facts onto cards and display them somewhere!

See overleaf for how this relates to learning in school

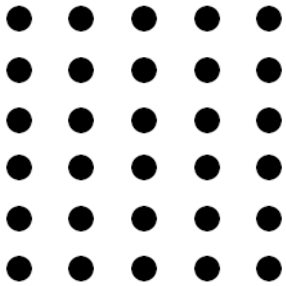
I know the multiplication and division facts for all times tables up to 12 x 12.

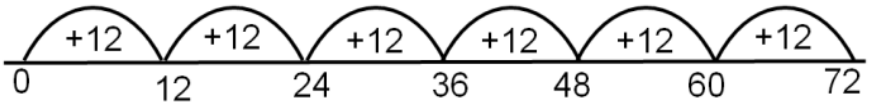
Learning in School

By Year 5, the children have learnt all their times tables. In school, we practise them regularly to help the children to master instant recall.

Some of the approaches we use are: saying them, singing them, playing games, making up rhymes and quick response to oral questions.

We encourage the children to represent the facts they know visually. Here are some examples of visual images that we use:





We also encourage them to make links with the facts that they already know. For example, they know that 10 x 12 = 120, so can they use this to work out 9 x 12 or 11 x 12?

Your child will be learning written methods for multiplication of larger numbers and decimals. They will need to know the tables facts to help them to solve calculations such as:

4346 x 8 =

$$\begin{array}{r} 4346 \\ \times \quad 8 \\ \hline 34768 \\ {\scriptstyle 2\,3\,4} \end{array}$$

4.92 x 3 =

$$\begin{array}{r} 4.92 \\ \times \quad 3 \\ \hline 14.76 \\ {\scriptstyle 1\,2} \end{array}$$

352 x 24 =

x	300	50	2
20	6000	1000	40
4	1200	200	8

7040 + 1408 = 8448

Key Instant Recall Facts

Year 5 – Spring 1

I can find factor pairs of a number.

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

Children should now know all multiplication and division facts up to 12 × 12. When given a number in one of these times tables, they should be able to state a factor pair which multiply to make this number. Below are some examples:

24 = 4 × 6	42 = 6 × 7
24 = 8 × 3	25 = 5 × 5
56 = 7 × 8	84 = 7 × 12
54 = 9 × 6	15 = 5 × 3

Key Vocabulary

Can you find a **factor** of 28?

Find two numbers whose **product** is 20.

I know that 6 is a factor of 72 because 6 multiplied by 12 equals 72.

42 is a **multiple** of 7.

Can they name all the factors of a number? For example, the factors of 24 are: 1, 24, 2, 12, 3, 8, 4 and 6.

Top Tips for Practising at Home

The secret to success is practising **little** and **often**. Can you practise these key facts 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.

Try a quiz - There is an activity at www.conkermaths.org to practise finding factor pairs.
There are also quizzes at:
www.bbc.co.uk/bitesize/quiz/q82797909
www.math-play.com/Factors-Millionaire/Factors-Millionaire.html

Think of the question – One player thinks of a times table question (e.g. 4 × 12) and states the answer. The other player has to guess the original question.

Use memory tricks – For those hard-to-remember facts, www.multiplication.com has some strange picture stories to help children remember.

Play a game – There are many good games to play. Here are a few to try:
http://nrich.maths.org/5468
www.coolmath-games.com/0-math-lines-xfactor
www.bbc.co.uk/bitesize/ks2/maths/number/factors_multiples/play/

See overleaf for how this relates to learning in school

I can find factor pairs of a number.

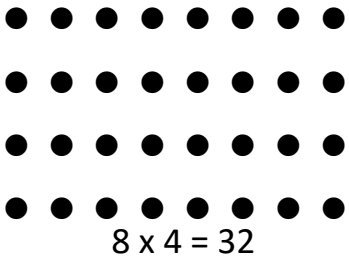
Learning in School

In school, the children find factors of numbers in pairs. For example:

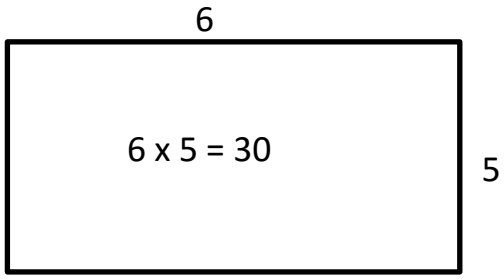
Factors of 32:

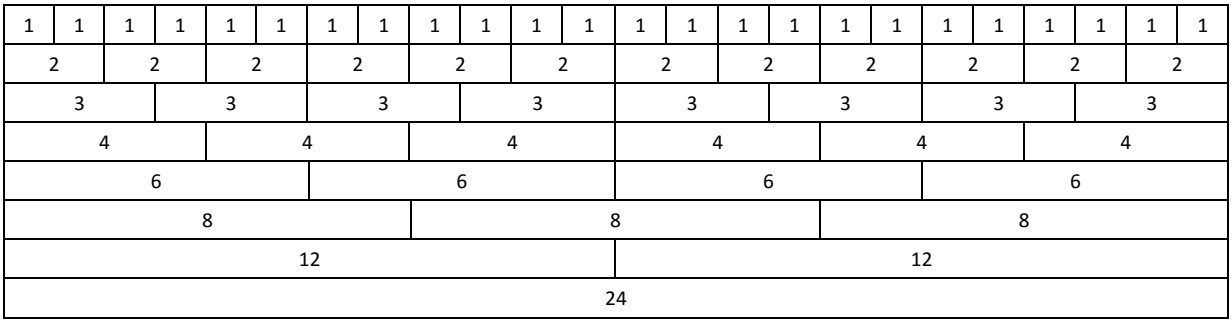
1	32
2	16
4	8

Here are some examples of visual images that we use:



8 x 4 = 32





Your child will be learning to solve number problems such as:

Write a number in each box that follows the rules:

	Multiple of 3	Factor of 24	Multiple of 5	Factor of 72
Even Number				
Odd Number				
Multiple of 8				
Factor of 120				

Knowing the factors and multiplication facts helps with understanding multiplication and division calculations.

420 ÷ 15 = 28

```
   28
15 ) 420
   300   (15 x 20)
   120
   120   (15 x 8)
     0
```

4346 x 8 =

```
  4346
x    8
 34768
   2 3 4
```