

Maths: Calculations in Year 2

Addition and Subtraction

Children apply their understanding of known **addition and subtraction facts** within 20 (fact-families). **Part-whole models** and **bar models** deepen the children's understanding. They continue to use **objects** to check and prove if calculations are correct.

20	
15	5

20=15+5

20=5+15

20-5=15

20-15=5

15+5=20

5+15=20

15-20=5

5-20=15

Children develop their understanding of **related facts** (e.g. $5+2=7$ so $50+20=70$) and use their knowledge of **number bonds** to ten to calculate bonds to 100 (e.g. $7+3=10$, so $70+30=100$). They move on to finding number bonds to 100 with tens and ones (e.g. $25+75=100$, $100-84=16$, $31+69=100$).

Children learn to spot patterns when **adding and subtracting 1** and **adding and subtracting 10** and **multiples of 10**. Hundred squares help children to explore new patterns and children use objects to add and subtract 10s.

They begin to use **partitioning** and number bond knowledge to add and subtract when crossing 10.

$17 + 5 = 22$

$22 - 7 = 15$

They **add two 2-digit numbers** by looking at the tens and ones and learn how to **exchange** ten ones for one ten when crossing 10, often using objects and pictures to help them,

Children **subtract with 2-digits** using objects and pictures and learn to **exchange** when crossing 10.

They learn to add three 1 digit numbers using number bonds and number fact knowledge, adding the numbers in any order (e.g. $5 + 4 + 6 = 15$)

$$42 - 15 = 27$$

Multiplication and Division

In Year 2, children will learn to recall and use multiplication and division facts for the **2, 5 and 10 multiplication tables**. They will also learn to **count on and back in 3s** from any number.

Children will make and **add equal groups** (repeated addition) before being introduced to the **multiplication symbol**. They will learn to link **repeated addition** with multiplication, using objects and pictures.

$6 + 6 + 6 = 18$
 $6 \times 3 = 18$

Children will use **arrays** to help them understand that multiplication can be done in any order. $5 \times 2 = 2 \times 5$

Children divide by **sharing** and **grouping**. They do this using objects and pictures. They will be introduced to the **÷ symbol** and begin to see the link between division and multiplication.

20
★★★★★★★★★★★★★★★★

$20 \div 4 = 5$
 $5 \times 4 = 20$

Pencils come in packs of 20. We need to put 5 in each pot. How many pots will we need? $20 \div \underline{\quad} = 5$

Children will divide by 2, 5 and 10. They should be able to count in 2s, 5s and 10s and know their 2, 5 and 10 times tables.

$8 \div 4 = 2$
 $4 \times 2 = 8$

$70p =$
 $70 \div 10 = 7.$

What can you do at home?

Many parents ask this question: here are a few ideas! Help your child learn their 2, 5 and 10 times tables. Practise counting on and back in 3s. Revise number bonds to 10 and look at number bonds to 20 and 100. Play maths games to build skills in a fun and interactive way (ideas and resources will be given out at the Maths 'Stay and Play' session on 27th November).

There are also lots of interactive games online. Many are tablet friendly. Here are a few recommended websites:

- <http://www.topmarks.co.uk/Interactive.aspx?cat=8>
- <https://www.ictgames.com/mobilePage/index.html>

<http://www.snappymaths.com/year2/>