

Maths Parent Workshops

Cygnus & Tucana Maths Morning

Early Years

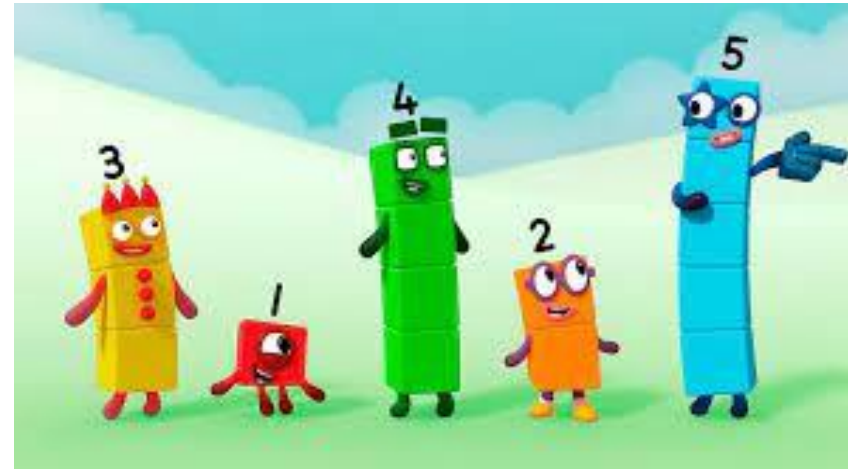
Introduction to mathematical concepts

Building foundations for KS1



Cardinality and Counting

Understanding that the cardinal value of a number refers to the quantity, or 'howmanyness' of things it represents





Comparison

Understanding that comparing numbers involves knowing which numbers are worth more or less than each other





Composition

Understanding that one number can be made up from (composed from) two or more smaller numbers





Pattern

Looking for and finding patterns helps children notice and understand mathematical relationships



Shape and Space

Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking

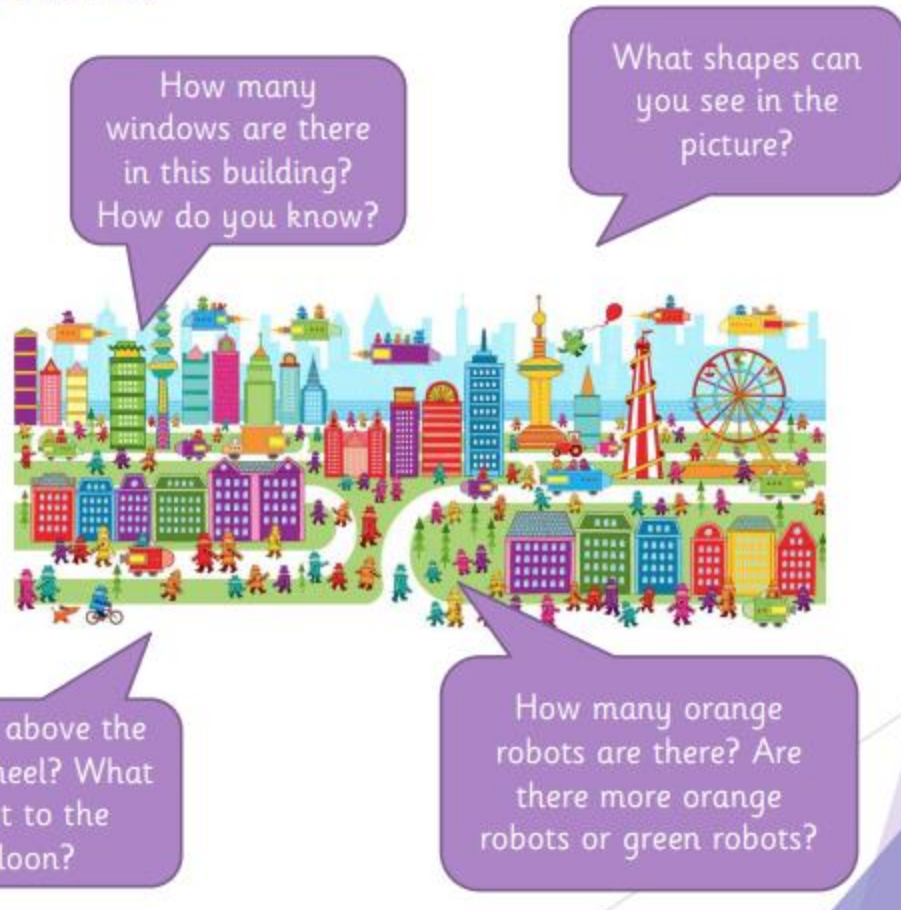
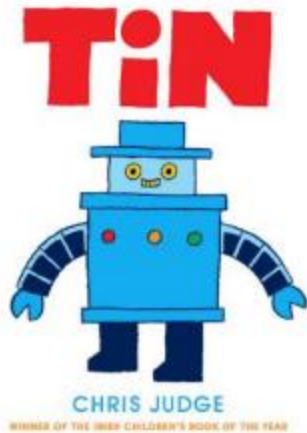


Measures

Comparing different aspects such as length, weight and volume, as a preliminary to using units to compare later

What can you do to help?

Maths is everywhere!



- Ask questions to challenge their understanding
- Model how you work things out
- Keep maths fun!
- Encourage subitising rather than counting

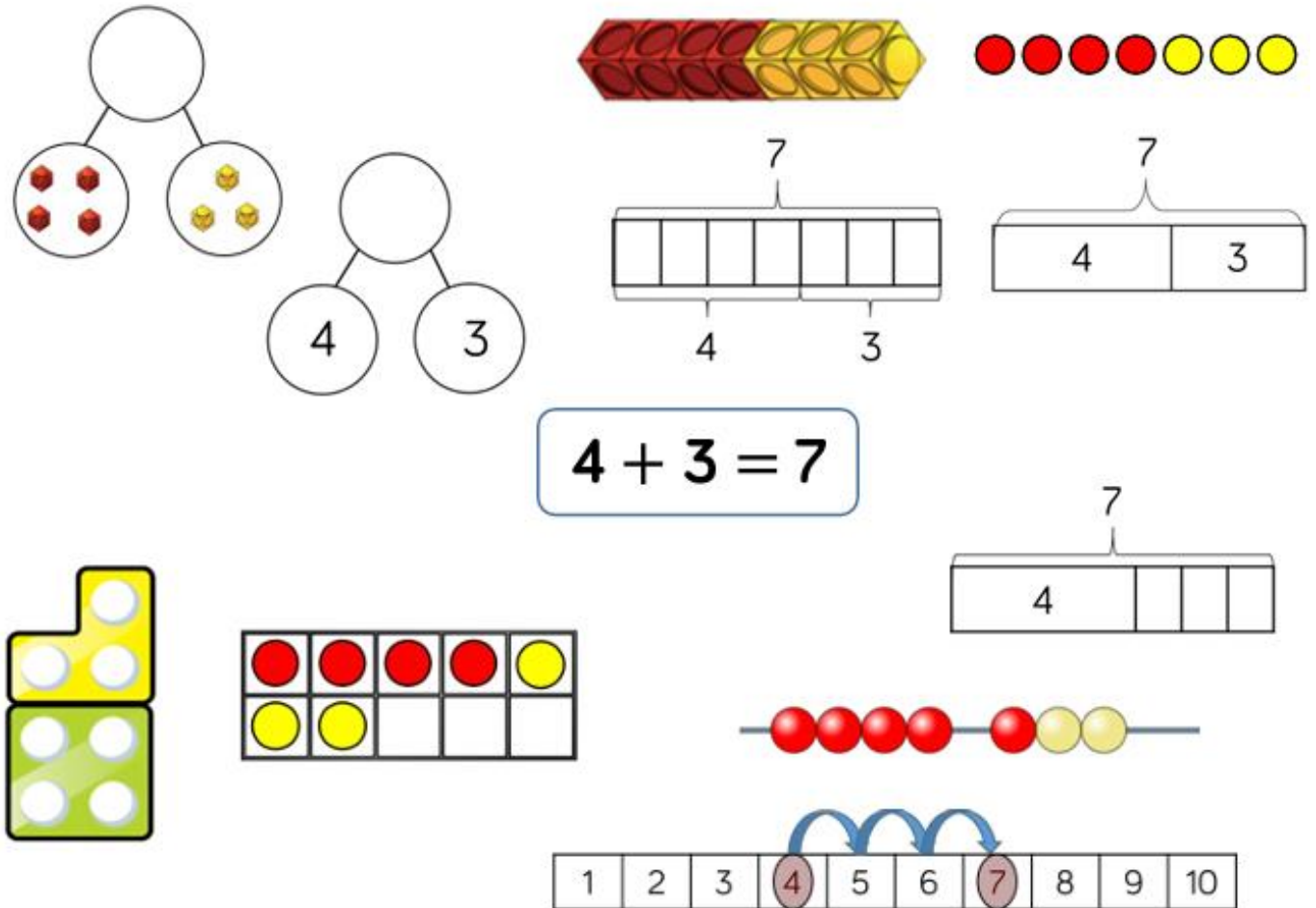
KS1

Developing fluency and mathematical reasoning

Building foundations for KS2

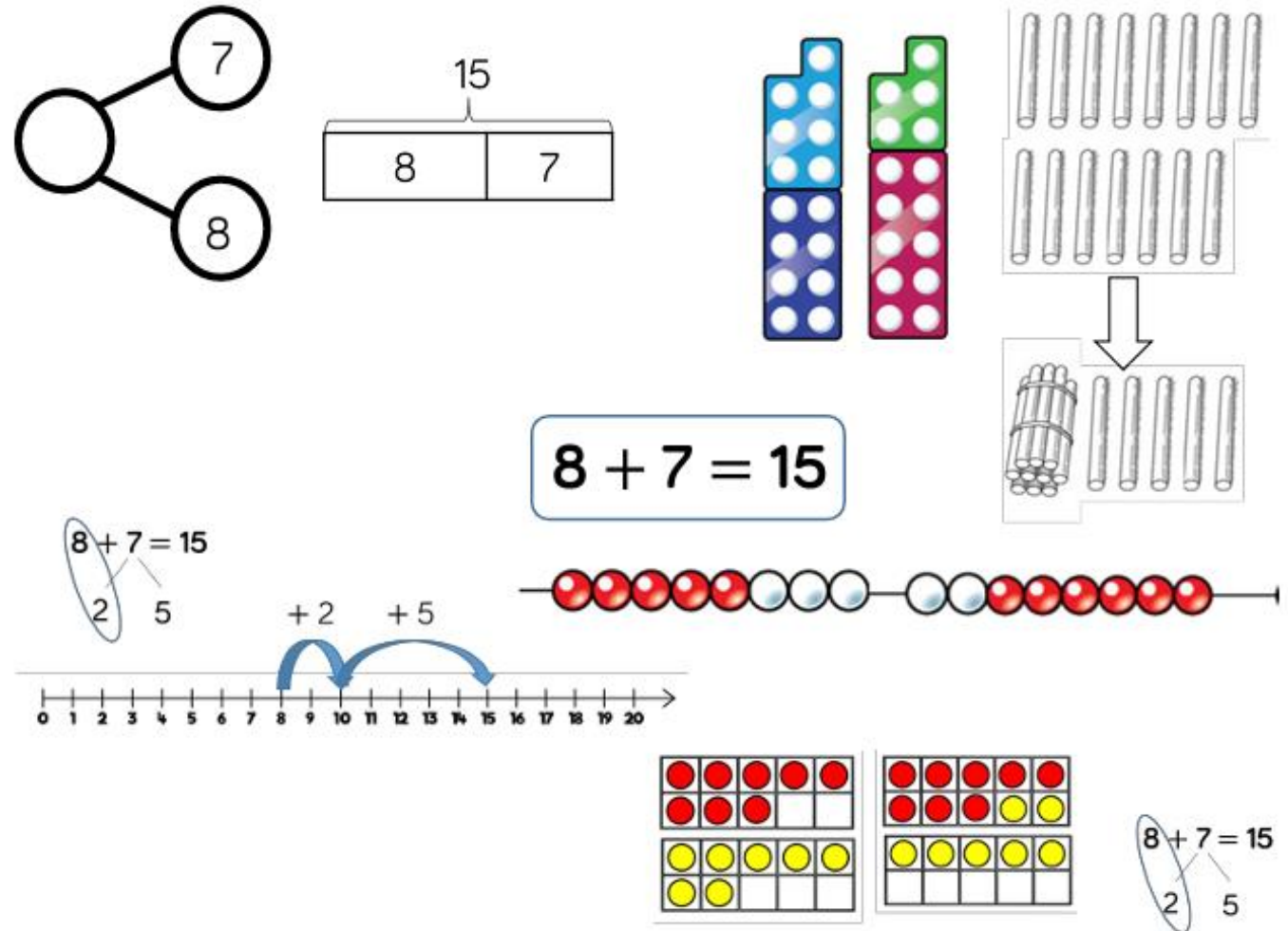
Addition

Adding 1 digit numbers
within ten (Y1)



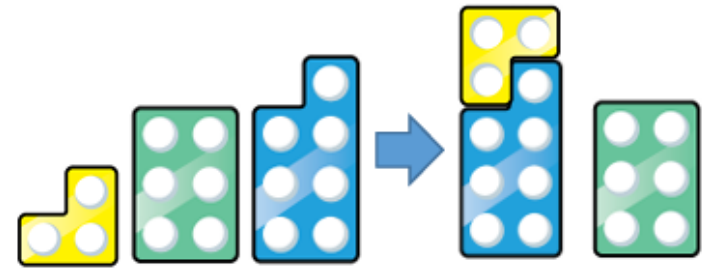
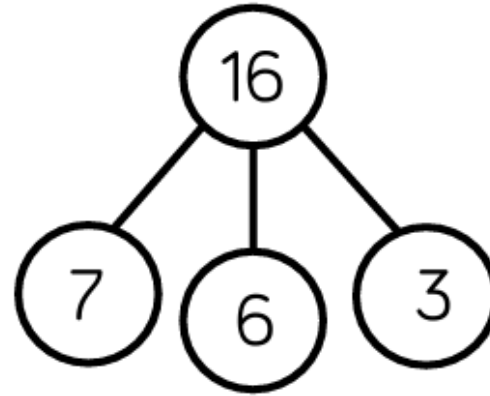
Addition

Add 1 and 2-digit numbers to 20 (Y1/2)

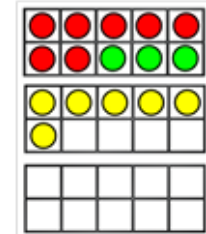
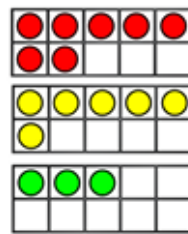


Addition

Add three 1-digit numbers (Y2)

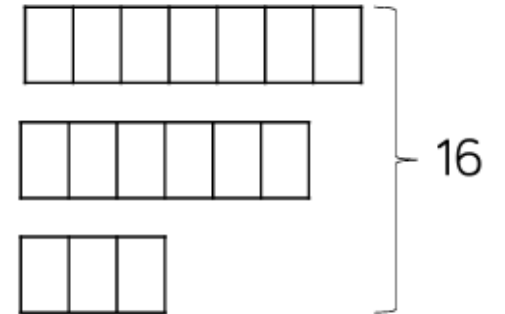


$$7 + 6 + 3 = 16$$



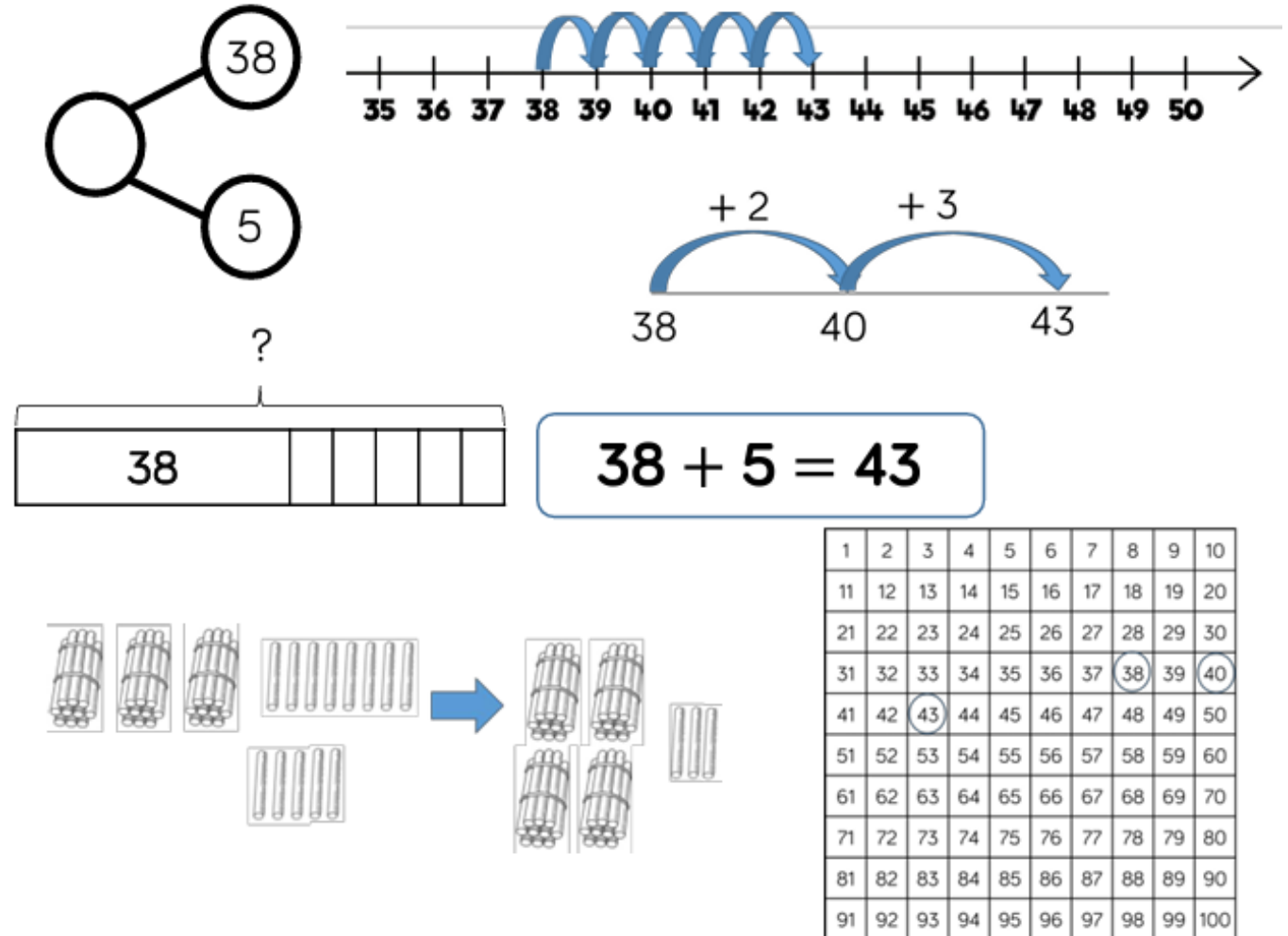
$$7 + 6 + 3 = 16$$

10



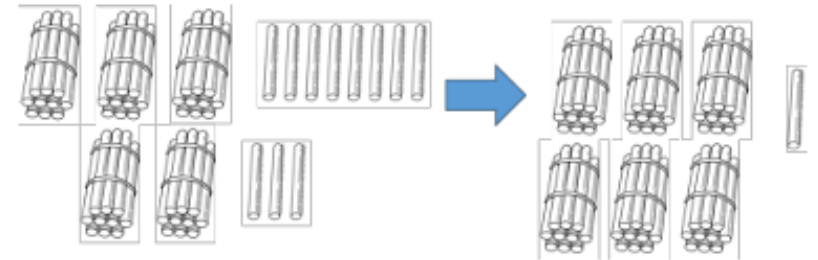
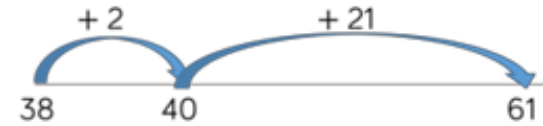
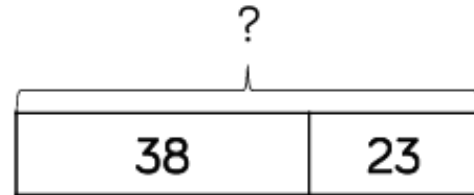
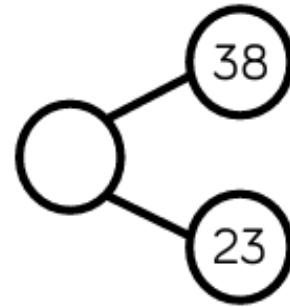
Addition

Add 1-digit and 2-digit numbers to 100 (Y2/3)



Addition

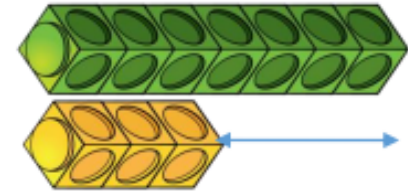
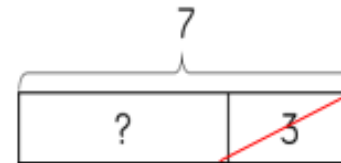
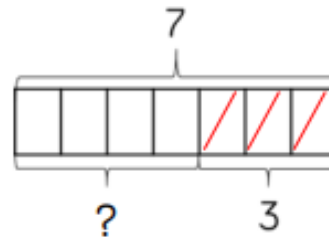
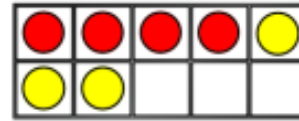
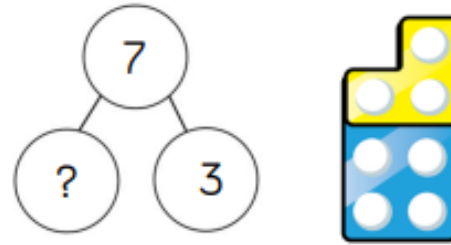
Add two 2-digit numbers
to 100 (Y2)



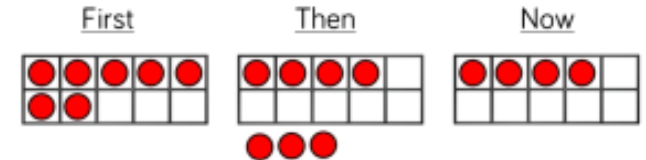
$$38 + 23 = 61$$

Subtraction

Subtract 1-digit numbers within 10 (Y1)

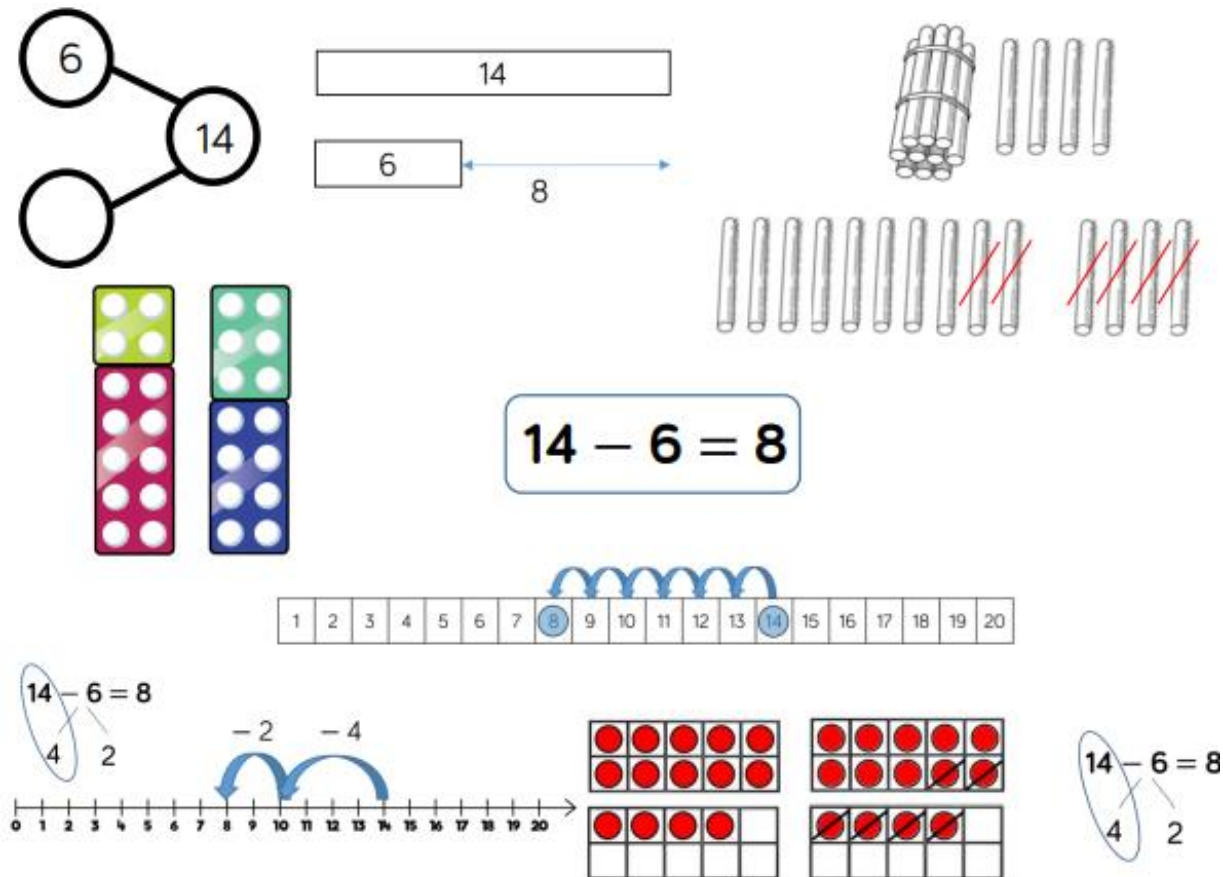


$$7 - 3 = 4$$



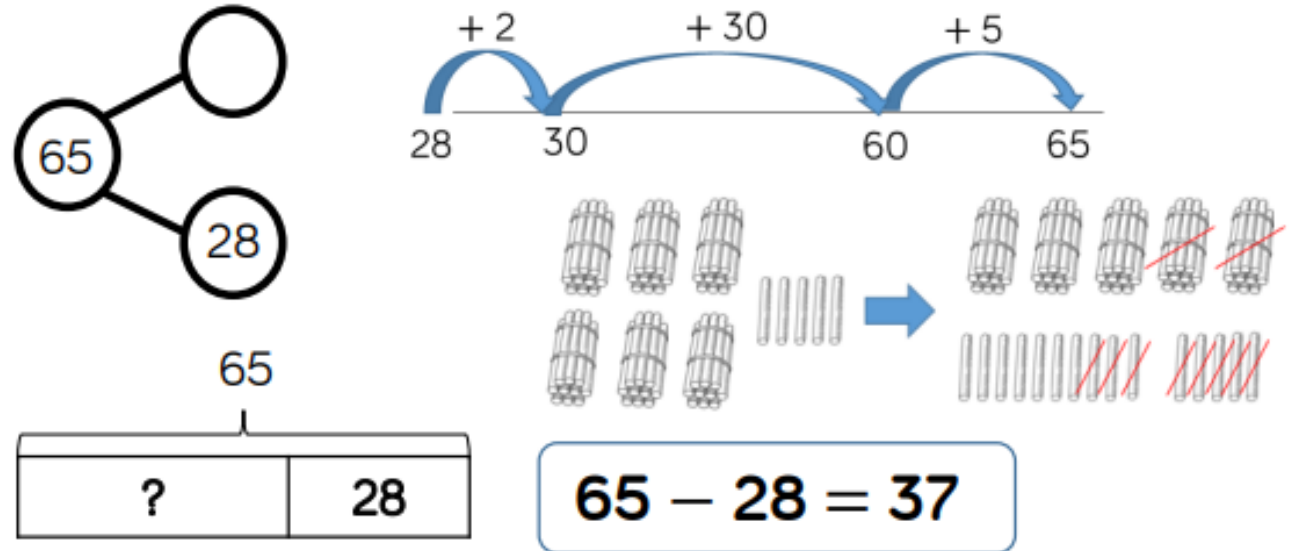
Subtraction

Subtract 1 and 2-digit numbers
to 20 (Y1/2)



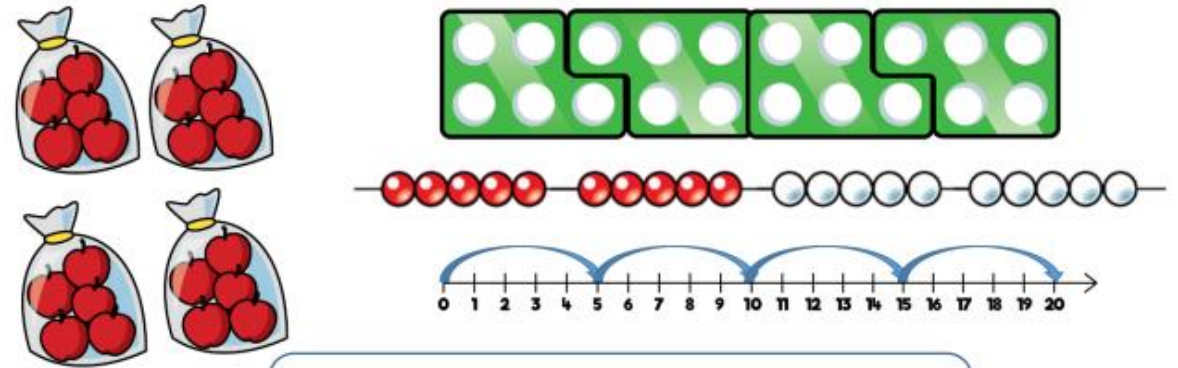
Subtraction

Subtract 1 and 2-digit numbers
to 100 (Y2)

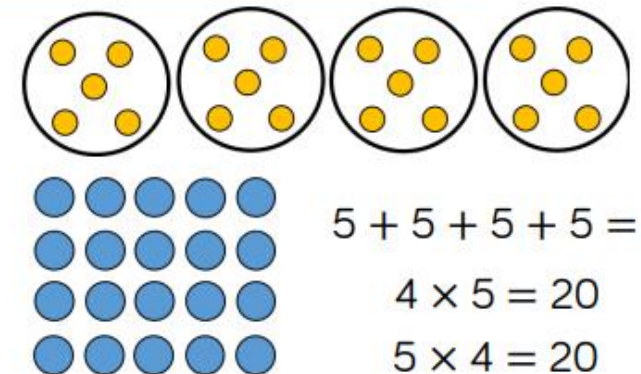
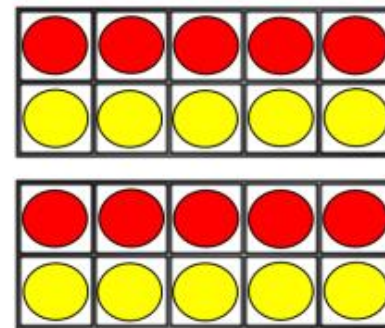


Multiplication

Solve 1-step problems using multiplication (Y1/2)



One bag holds 5 apples.
How many apples do 4 bags hold?



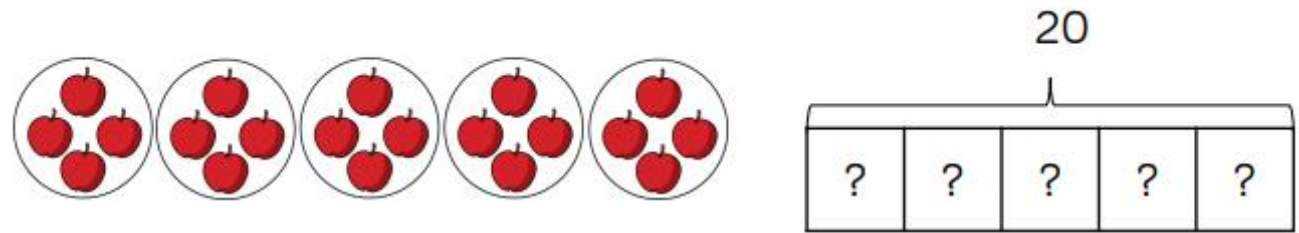
$$5 + 5 + 5 + 5 = 20$$

$$4 \times 5 = 20$$

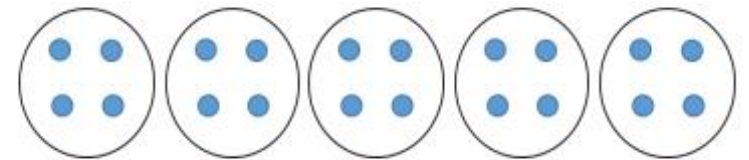
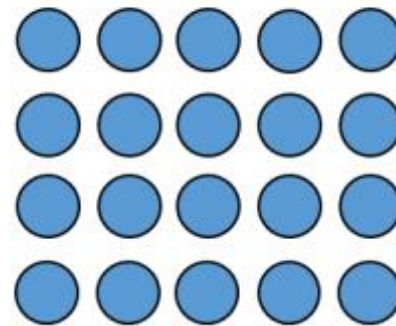
$$5 \times 4 = 20$$

Division

Solve 1-step problems using division (sharing) (Y1/2)



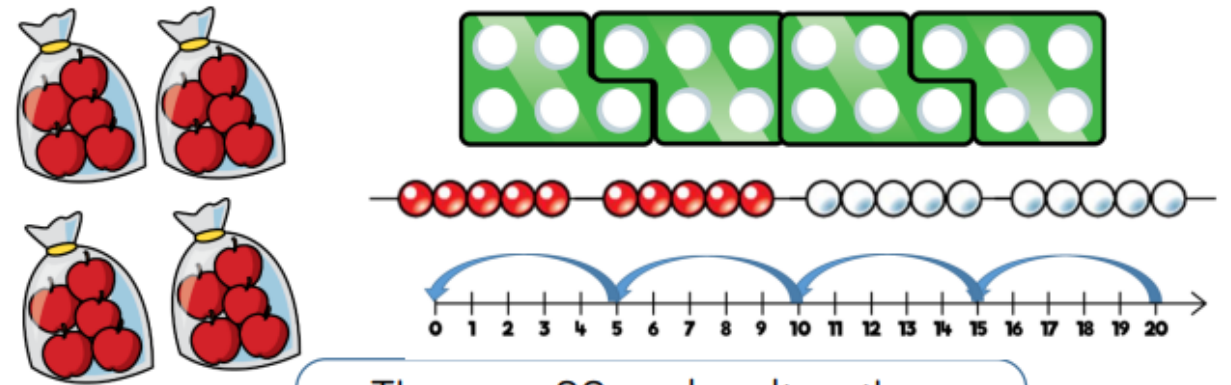
There are 20 apples altogether.
They are shared equally between 5 bags.
How many apples are in each bag?



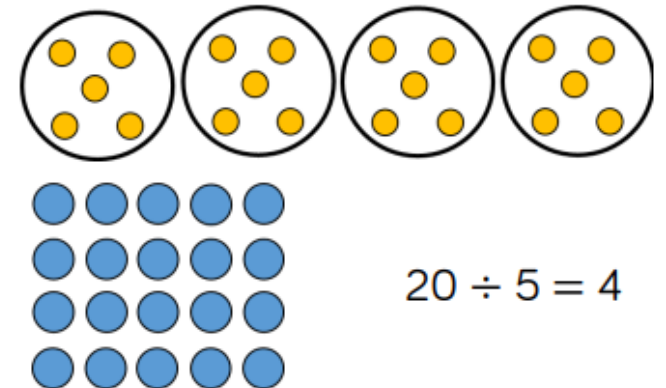
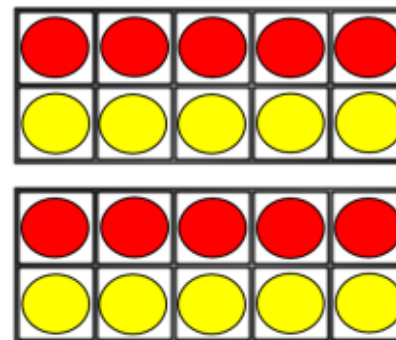
$$20 \div 5 = 4$$

Division

Solve 1-step problems using division (grouping) (Y1/2)



There are 20 apples altogether.
They are put in bags of 5.
How many bags are there?

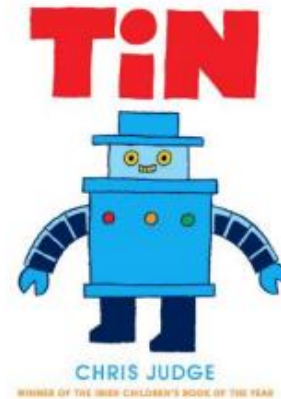


$$20 \div 5 = 4$$

What can you do to help?

- Help to skip count objects
- Ask them add/subtract/multiply small numbers in real world situations
- Practice sharing and grouping
- Help to recognise number bonds

Maths is everywhere!



Ten robots travel in the orange ships. How many travel in each one?

Three windows smash in the tall blue building. How many are left?

How many windows are there in the green buildings?

There are 13 blue robots and 9 orange robots. How many is that altogether?

Questions?

ANSWERS TO QUESTIONS FROM MATHS MORNING AND MATINEE 2024

Do they always have equipment out in Y1 and 2? Do they get their preferred tools?

We have manipulatives available in all classrooms and children will be encouraged to use anything that would help them. In some lessons they will be directed towards specific equipment to aid their understanding.

Would you expect the children to visualise the answer in their head in Year 2?

Some children will be able to use number bonds (e.g. $7+3=10$) and other strategies to calculate in their heads. Others will prefer to use manipulatives or jottings to help them.

Are there things we can do to help with children who might have missed the Early Years learning?

Encouraging children to see patterns is a good place to start - being able to subitise numbers to 10 (knowing that there are four dots, rather than counting). Dice or dominoes can be good for this quick practice. We also continue this 'Mastering Number' work in KS1. If you have specific concerns, I encourage you to speak to your class teacher.

Should we use certain words, i.e. 'plus' not 'add'?

Vocabulary is important in maths as it can often mean different things in other contexts. We try to expose children to different vocabulary for the different operations (e.g. subtract, take away, find the difference). As we move through KS1 and KS2, children are introduced to more complex vocabulary (e.g. subtrahend and minuend for subtraction problems). We will be sending home a vocabulary glossary for the different classes soon, which will help you to use the relevant vocabulary at home. We will also send the slides home from the workshop.

How would you teach a child to do a sum such as $25-14$ without column counting?

There are several ways we could do this. We could use a number line to count back 10 and then count back 4. This could lead to children doing this partitioning and counting back in their heads. If we had Dienes (10s and 1s) then we would physically take away the ten and four ones. The strategy of partitioning (splitting into 10s and 1s) is an important one that we use in all year groups in various different areas of Maths.

When do children move to column addition?

Column methods are not required until children move to KS2 (usually Year 3). Before then, it is incredibly important for children to develop a deep understanding of the operations using manipulatives (equipment), pictorial representations (diagrams) and writing the equation horizontally (e.g. $25-14=11$). The progression we take through different year groups can be found in our calculation policy.