



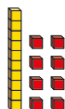
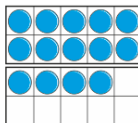
# Maths – Place Value

YEAR 2  
Block 1

## Small Steps:

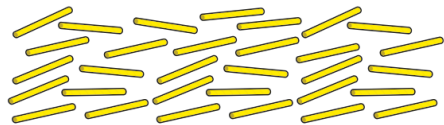
1. Numbers to 20
2. Count objects to 100 by making 10s
3. Recognise tens and ones
4. Use a place value chart
5. Partition numbers to 100
6. Write numbers to 100 in words
7. Flexibly partition numbers to 100
8. Write numbers to 100 in expanded form
9. 10s on the number line to 100
10. 10s and 1s on the number line to 100
11. Estimate numbers on a number line
12. Compare objects
13. Compare numbers
14. Order objects and numbers
15. Count in 2s, 5s and 10s
16. Count in 3s

What numbers are shown?

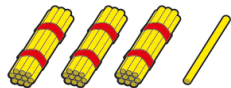


Give your answers in numerals and words.

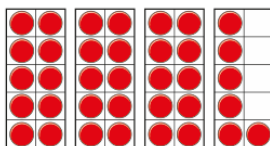
How many straws are there?



How many straws are there?



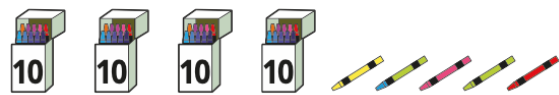
What number is shown?



There are \_\_\_\_\_ tens and \_\_\_\_\_ ones.

The number is \_\_\_\_\_

How many crayons are there?



How does the place value chart match the base 10?

| Tens | Ones |
|------|------|
| 2    | 4    |

## Key Questions:

- How many are there?
- How did you count them?
- What number comes before/after \_\_\_\_\_?
- How do you write \_\_\_\_\_ in words?
- What number is made up of 1 ten and \_\_\_\_\_ ones?
- How many \_\_\_\_\_ are in each group/bundle?
- What does each piece represent?
- Where can you see the ten?
- Do you need to count each one individually?
- What do you do if there are no ones?
- What does the digit \_\_\_\_\_ represent?
- Which column do you write \_\_\_\_\_ in?
- Why can you not write a digit greater than 9 in a place value column?

## Stem Sentences:

- There is 1 ten and \_\_\_\_\_ ones. The number is \_\_\_\_\_
- The number before/after \_\_\_\_\_ is \_\_\_\_\_
- There are \_\_\_\_\_ groups of 10 and \_\_\_\_\_ more. The number is \_\_\_\_\_
- There are \_\_\_\_\_ tens and \_\_\_\_\_ ones. The number is \_\_\_\_\_

## Key Vocabulary:

total  
before  
after  
words  
numerals  
group  
bundle  
tens  
ones  
represent  
digit

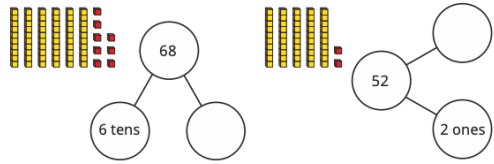


# Maths – Place Value

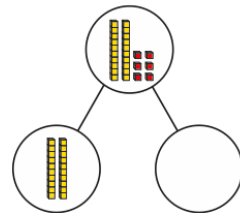
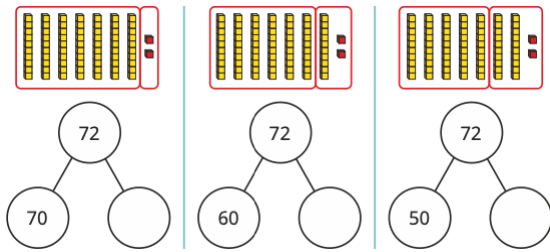
YEAR 2  
Block 1

## Small Steps:

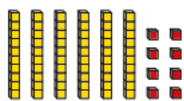
1. Numbers to 20
2. Count objects to 100 by making 10s
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4. Use a place value chart
5. Partition numbers to 100
6. Write numbers to 100 in words
7. Flexibly partition numbers to 100
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11. Estimate numbers on a number line
12. Compare objects
13. Compare numbers
14. Order objects and numbers
15. Count in 2s, 5s and 10s
16. Count in 3s



| Base 10 | Numerals | Words |
|---------|----------|-------|
|         |          | ten   |
|         | 20       |       |
|         |          |       |



$$26 = 20 + \underline{\quad}$$



$$68 = 6 \text{ tens} + \underline{\quad} \text{ ones}$$

$$68 = 60 + \underline{\quad}$$

## Key Questions:

- How many tens are there?
- How many ones are there?
- What is the number?
- What is the whole? What are the parts?
- Does it matter which way round you draw the parts?
- How do you write that in words?
- How many straws are there in each bundle?
- If you unbundle one lot of 10, how many tens are there now? How many ones?
- How many ones are there in each ten?
- How else can you partition the number?
- How do you write that as a number sentence?
- What number is equal to  $\underline{\quad} + \underline{\quad}$ ?
- How does the part-whole model link to the number sentence?
- How can you write the other partitions as a number sentence?

## Stem Sentences:

- There are  $\underline{\quad}$  tens and  $\underline{\quad}$  ones. The number is  $\underline{\quad}$
- $\underline{\quad}$  is a part and  $\underline{\quad}$  is a part. The whole is  $\underline{\quad}$
- $\underline{\quad}$  tens in words is  $\underline{\quad}$  and  $\underline{\quad}$  ones in words is  $\underline{\quad}$
- $\underline{\quad}$  can be partitioned into  $\underline{\quad}$  and  $\underline{\quad}$
- $\underline{\quad}$  is made up of  $\underline{\quad}$  tens and  $\underline{\quad}$  ones
- $\underline{\quad}$  is equal to  $\underline{\quad}$  plus  $\underline{\quad}$

## Key Vocabulary:

- represent
- numerals
- partition
- part-whole model
- whole
- part
- tens
- ones
- number sentence
- equal to



# Maths – Place Value

YEAR 2  
Block 1

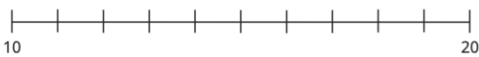
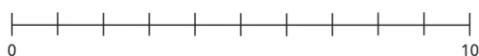
## Small Steps:

- Numbers to 20
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- Write numbers to 100 in words
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- Write numbers to 100 in expanded form
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- 10s and 1s on the number line to 100
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- Compare numbers
- Order objects and numbers
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- Count in 3s

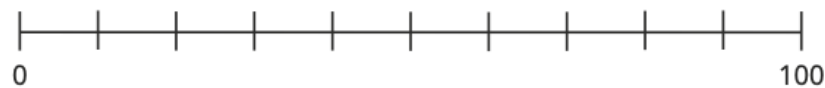
Complete the number lines.



Label the number lines.



Label the number line.



Estimate where each number belongs on the number line.

45

75

35

## Key Questions:

- What is the value at the start point of the number line?
- What is the value at the end point of the number line?
- How many intervals are there?
- What is the number line counting up in? How do you know?
- Where would \_\_\_\_\_ be on the number line? How do you know?
- What number is the arrow pointing to? How do you know?
- Which two intervals is \_\_\_\_\_ between?
- What number is halfway between \_\_\_\_\_ and \_\_\_\_\_?
- Which multiple of 10 is \_\_\_\_\_ closer to?
- Why can you only estimate the position of \_\_\_\_\_ on the number line?

## Stem Sentences:

- The start point is \_\_\_\_\_ and the end point is \_\_\_\_\_
- There are \_\_\_\_\_ intervals on the number line. Each interval is worth \_\_\_\_\_
- The number line is counting up in \_\_\_\_\_s.
- \_\_\_\_\_ is closer to \_\_\_\_\_ than to \_\_\_\_\_

## Key Vocabulary:

number line  
intervals  
tens  
ones  
start point  
end point



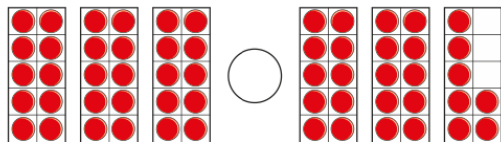
# Maths – Place Value

YEAR 2  
Block 1

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- 10s and 1s on the number line to 100
- Estimate numbers on a number line
- Compare objects
- Compare numbers
- Order objects and numbers
- Count in 2s, 5s and 10s
- Count in 3s

Write  $<$ ,  $>$  or  $=$  to compare the numbers of objects.

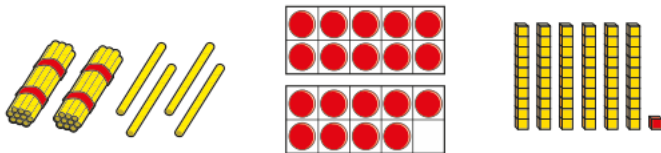


Write  $<$ ,  $>$  or  $=$  to make the statements correct.

$$28 \bigcirc 30 \qquad 30 + 23 \bigcirc 40 + 13$$

$$90 \bigcirc 70 + 28 \qquad 20 + 14 \bigcirc 24$$

The pictures show different numbers.



Which is the smallest number?

Which is the greatest number?

Complete the number sentence.

\_\_\_\_\_  $<$  \_\_\_\_\_  $<$  \_\_\_\_\_

## Key Questions:

- How can you arrange the objects to make them easy to compare?
- How did you count the objects?
- Do groups of 10 help you to count? Why?
- Do groups of 10 help you to compare? Why?
- Which shows more? How do you know?
- Can you show your answers using base 10/counters/cubes?
- Is there more than one answer?
- How does a number line help you to compare numbers?
- Do you need to work out number sentences to decide which is greater/smaller?
- How does the number line help you order the numbers?
- How does base 10 show that your order is correct?
- Do you look at the tens or the ones to help you order?

## Stem Sentences:

- There are \_\_\_\_\_ objects in set A than in set B
- \_\_\_\_\_ is equal to \_\_\_\_\_ tens and \_\_\_\_\_ ones
- \_\_\_\_\_ tens is \_\_\_\_\_ than \_\_\_\_\_ tens
- \_\_\_\_\_ is greater than \_\_\_\_\_ because ...
- \_\_\_\_\_ is less than \_\_\_\_\_ because ...
- The greatest number is \_\_\_\_\_ because ...
- The smallest numbers is \_\_\_\_\_ because ...

## Key Vocabulary:

- arrange
- order
- tens
- ones
- fewer
- more
- same
- greater than
- less than
- equal to
- compare



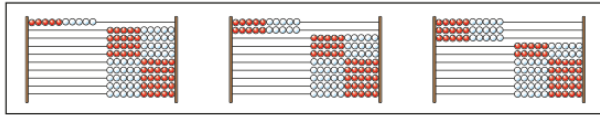
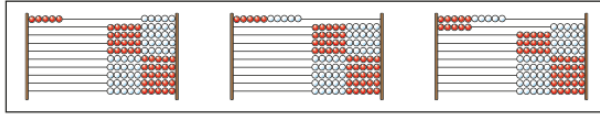
# Maths – Place Value

YEAR 2  
Block 1

## Small Steps:

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- Count objects to 100 by making 10s
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- 10s and 1s on the number line to 100
- Estimate numbers on a number line
- Compare objects
- Compare numbers
- Order objects and numbers
- Count in 2s, 5s and 10s
- Count in 3s

What numbers are shown?



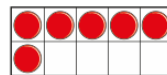
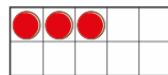
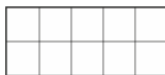
Make the next two numbers in each pattern.

What numbers have you made?

Complete the number tracks.



What numbers are shown?



Make the next two numbers in the pattern.

What numbers have you made?

Complete the number tracks.



## Key Questions:

- How many do you need to count on each time? How do you know?
- When counting forwards, do the numbers get greater or smaller?
- When counting backwards, do the numbers get greater or smaller?
- Do you notice any patterns?
- What happens to the ones digit when counting in 10s?
- What do you notice about the numbers when you are counting in 2s, 3s or 5s?
- What is different about counting in 2s and counting in 3s?
- How many jumps do you need to draw on the number line each time? How do you know?

## Stem Sentences:

- When counting forwards in 2s/3s/5s/10s, the number after \_\_\_\_\_ is \_\_\_\_\_
- When counting backwards in 2s/3s/5s/10s, the number after \_\_\_\_\_ is \_\_\_\_\_

## Key Vocabulary:

fewer  
more  
same  
greater than  
less than  
equal to  
compare  
order  
number line  
number track



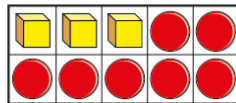
# Maths – Addition and Subtraction

YEAR 2  
Block 2

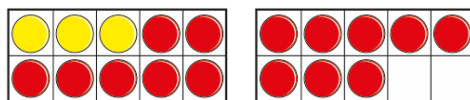
## Small Steps:

1. Bonds to 10
2. Fact families – addition and subtraction bonds within 20
3. Related facts
4. Bonds to 100 (tens)
5. Add and subtract 1s
6. Add by making 10
7. Add three 1-digit numbers
8. Add to the next 10
9. Add across a 10
10. Subtract across 10
11. Subtract from a 10
12. Subtract a 1-digit number from a 2-digit number (across 10)
13. 10 more, 10 less
14. Add and subtract 10s
15. Add two 2-digit numbers (not across a 10)
16. Add two 2-digit numbers (across a 10)

Here is a ten frame.



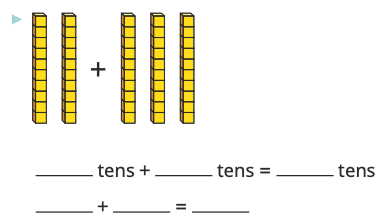
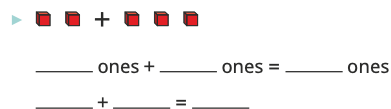
How many cubes are there?  
 How many counters are there?  
 How many objects are there in total?  
 Complete the number sentence.  
 \_\_\_\_ + \_\_\_\_ = 10



Complete the fact family to match the ten frames.

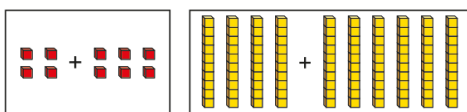
\_\_\_\_ + \_\_\_\_ = 18      18 - \_\_\_\_ = \_\_\_\_  
 \_\_\_\_ + \_\_\_\_ = 18      18 - \_\_\_\_ = \_\_\_\_

Can you write any of the facts another way?



What is the same about the number sentences?  
 What is different?

Here are some number bonds.



How many ones are there?  
 How many tens are there?  
 Write the number sentence for each bond.  
 What do you notice?

## Key Questions:

- How many \_\_\_\_\_ have you got?
- How many more do you need to make 10?
- What is the bond to 10 for \_\_\_\_\_?
- What number are you starting with?
- What do you need to add to make 10?
- If  $4 + 5 = 9$ , what is the missing number in  $14 + \_\_\_ = 19$ ? How do you know?
- If 2 ones plus 3 ones is equal to 5 ones, what is 2 tens plus 3 tens?
- What is the same about the number sentences? What is different?
- How many tens are there?
- How many more do you need to make 100?
- If  $4 + 6 = 10$ , what is the missing number in  $40 + \_\_\_ = 100$ ?

## Stem Sentences:

- If I have \_\_\_\_\_ counters, I need to add \_\_\_\_\_ more counters to make 10
- \_\_\_\_ ones + \_\_\_\_ ones = \_\_\_\_ ones,  
 so \_\_\_\_ tens + \_\_\_\_ tens = \_\_\_\_ tens.  
 This means that \_\_\_\_ + \_\_\_\_ = \_\_\_\_
- If \_\_\_\_ ones + \_\_\_\_ ones = ten,  
 then \_\_\_\_ tens + \_\_\_\_ tens = 100

## Key Vocabulary:

- add
- subtract
- number bonds
- tens
- ones
- to 10
- to 100
- equal to

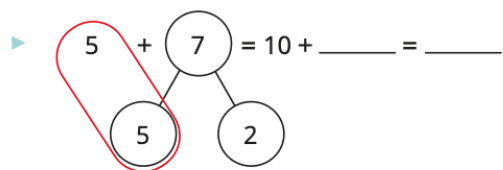


# Maths – Addition and Subtraction

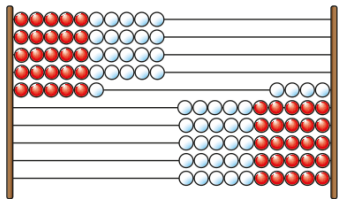
YEAR 2  
Block 2

## Small Steps:

1. Bonds to 10
2. Fact families – addition and subtraction bonds within 20
3. Related facts
4. Bonds to 100 (tens)
5. Add and subtract 1s
6. Add by making 10
7. Add three 1-digit numbers
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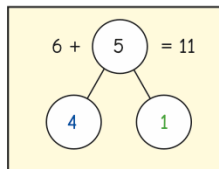
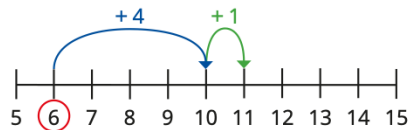
The Rekenrek shows 46



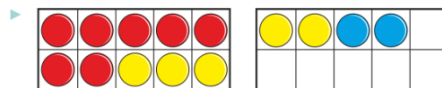
Use the Rekenrek to complete the number sentences.

- |                                |                                |
|--------------------------------|--------------------------------|
| ▶ $46 + 1 = \underline{\quad}$ | ▶ $46 - 1 = \underline{\quad}$ |
| $46 + 2 = \underline{\quad}$   | $46 - 2 = \underline{\quad}$   |
| $46 + 3 = \underline{\quad}$   | $46 - 3 = \underline{\quad}$   |

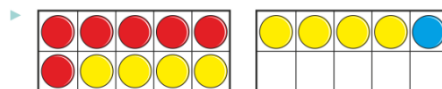
What do you notice?



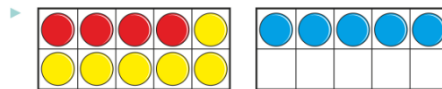
Use the ten frames to complete the additions.



$7 + 5 + 2 = \underline{\quad}$



$6 + 8 + 1 = \underline{\quad}$



$4 + 6 + 5 = \underline{\quad}$

## Key Questions:

- How many ones are there in \_\_\_\_\_?
- How many ones do you need to add/subtract?
- What is \_\_\_\_ ones + \_\_\_\_ ones?
- What is \_\_\_\_ + \_\_\_\_?
- What happens to the tens? What happens to the ones?
- What is the bond to 10 for \_\_\_\_?
- What can you partition \_\_\_\_\_ into?
- How many more do you need to add to 10?
- Why does partitioning \_\_\_\_ into \_\_\_\_ and \_\_\_\_ help with this question?
- Does it matter what order you add the numbers in?
- Can you see any numbers in the calculation?
- What is the most efficient way to complete the calculation?

## Stem Sentences:

- \_\_\_\_\_ can be partitioned into \_\_\_\_\_ and \_\_\_\_\_
- \_\_\_\_\_ ones + \_\_\_\_\_ ones = \_\_\_\_\_ ones,  
so \_\_\_\_\_ tens + \_\_\_\_\_ tens = \_\_\_\_\_ tens.  
This means that \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- If \_\_\_\_\_ ones + \_\_\_\_\_ ones = ten,  
then \_\_\_\_\_ tens + \_\_\_\_\_ tens = 100

## Key Vocabulary:

- add
- subtract
- number bonds
- tens
- ones
- partition
- to 10
- to 100
- equal to



# Maths – Addition and Subtraction

YEAR 2  
Block 2

## Small Steps:

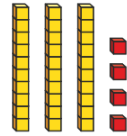
The base 10 shows 34

How many tens are there in 34?

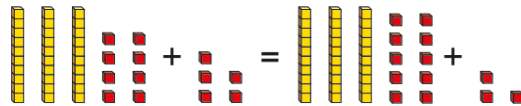
What is the multiple of 10 after 34?

How many ones are there in 34?

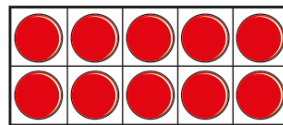
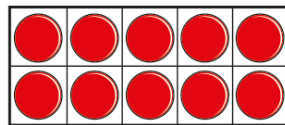
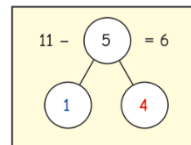
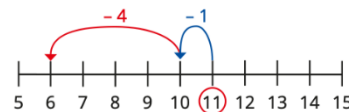
How many ones do you need to add to get to the next 10?



The base 10 shows that  $38 + 5 = 40 + 3$



Here is Tom's method for working out  $11 - 5$



Use the ten frames to work out the subtractions.

|        |        |        |
|--------|--------|--------|
| 20 - 4 | 20 - 7 | 20 - 2 |
| 20 - 1 | 20 - 5 | 20 - 3 |

What do you notice?

## Key Questions:

- What numbers do you need to add together?
- How many tens are there in \_\_\_\_\_?
- What is the multiple of 10 after \_\_\_\_\_?
- How many ones are there in \_\_\_\_\_?
- What is the bond to 10 for \_\_\_\_\_?
- What can you partition \_\_\_\_\_ into?
- How many do you need to takeaway?
- How many do you need to subtract to get to 10?
- How many more do you need to subtract?
- If you know that  $4 + 6 = 10$ , what is  $50 - 6$ ?
- What do you notice about the tens? What do you notice about the ones?

## Stem Sentences:

- I need to add \_\_\_\_\_ to get to the next 10  
\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_  
I need to add \_\_\_\_\_ more.  
So, \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_
- I need to subtract \_\_\_\_\_ to get to 10  
I can partition \_\_\_\_\_ into \_\_\_\_\_ and \_\_\_\_\_  
\_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_  
I need to subtract \_\_\_\_\_ more.  
\_\_\_\_\_ less than \_\_\_\_\_ is \_\_\_\_\_

## Key Vocabulary:

add  
subtract  
number bonds  
tens  
ones  
to 10  
to 100  
equal to  
multiple of  
partition

1. Bonds to 10
2. Fact families – addition and subtraction bonds within 20
3. Related facts
4. Bonds to 100 (tens)
5. Add and subtract 1s
6. Add by making 10
7. Add three 1-digit numbers
8. Add to the next 10
9. Add across a 10
10. Subtract across 10
11. Subtract from a 10
12. Subtract a 1-digit number from a 2-digit number (across 10)
13. 10 more, 10 less
14. Add and subtract 10s
15. Add two 2-digit numbers (not across a 10)
16. Add two 2-digit numbers (across a 10)





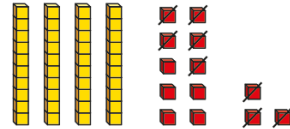
# Maths – Addition and Subtraction

**YEAR 2**  
**Block 2**

## Small Steps:

- Bonds to 10
- Fact families – addition and subtraction bonds within 20
- Related facts
- Bonds to 100 (tens)
- Add and subtract 1s
- Add by making 10
- Add three 1-digit numbers
- Add to the next 10
- Add across a 10
- Subtract across 10
- Subtract from a 10
- Subtract a 1-digit number from a 2-digit number (across 10)
- 10 more, 10 less
- Add and subtract 10s
- Add two 2-digit numbers (not across a 10)
- Add two 2-digit numbers (across a 10)

Max is using base 10 to work out  $53 - 8$



Why did Max make 53 like this?

Draw base 10 and write numerals to complete the table.

| 10 less | Number | 10 more |
|---------|--------|---------|
|         |        |         |
| 2       | 12     |         |
|         |        |         |
|         | 37     |         |

53 is circled on the hundred square.

|    |    |    |    |    |    |    |    |    |     |
|----|----|----|----|----|----|----|----|----|-----|
| 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  |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40  |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50  |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60  |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70  |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80  |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90  |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Circle the answer to  $53 + 40$

Circle the answer to  $53 - 40$

Choose two more numbers between 40 and 60

Circle 40 more and 40 less than each number.

What do you notice?

## Key Questions:

- How many do you start with?
- How many do you need to take away?
- What can you partition \_\_\_\_ into?
- How many do you need to subtract to get to the previous 10? How many more do you need to subtract?
- When you count on/count back 10, what do you get?
- Count on/count back another 10, what do you get?
- What do you notice about the number of tens?
- What do you notice about the number of ones?
- What do you notice about the position of the numbers on the hundred square?

## Stem Sentences:

- The previous multiple of 10 is \_\_\_\_
- \_\_\_\_ = \_\_\_\_ + \_\_\_\_, so
- \_\_\_\_ - \_\_\_\_ = \_\_\_\_
- I need to subtract \_\_\_\_ and then subtract another \_\_\_\_
- \_\_\_\_ has \_\_\_\_ tens and \_\_\_\_ ones
- 10 more than \_\_\_\_ is \_\_\_\_
- 10 less than \_\_\_\_ is \_\_\_\_
- \_\_\_\_ has \_\_\_\_ tens
- To add/subtract \_\_\_\_, I need to add/subtract 10 \_\_\_\_ times.

## Key Vocabulary:

add  
subtract  
number bonds  
tens  
ones  
to 10  
equal to  
partition  
multiple of 10  
count on  
count back



# Maths – Addition and Subtraction

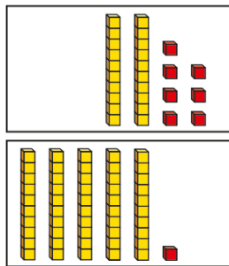
YEAR 2  
Block 2

## Small Steps:

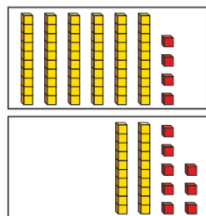
1. Bonds to 10
2. Fact families – addition and subtraction bonds within 20
3. Related facts
4. Bonds to 100 (tens)
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11. Subtract from a 10
12. Subtract a 1-digit number from a 2-digit number (across 10)
13. 10 more, 10 less
14. Add and subtract 10s
15. Add two 2-digit numbers (not across a 10)
16. Add two 2-digit numbers (across a 10)

Here are two numbers in base 10

- ▶ How many ones are there altogether?
- ▶ How many tens are there altogether?
- ▶ What is the total of the two numbers?

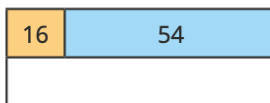
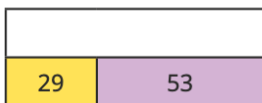


Complete the sentences to work out  $64 + 28$



4 ones + 8 ones = \_\_\_\_\_ ones  
 \_\_\_\_\_ ones = \_\_\_\_\_ ten + \_\_\_\_\_ ones  
 6 tens + 2 tens + \_\_\_\_\_ ten = \_\_\_\_\_ tens  
 \_\_\_\_\_ tens + \_\_\_\_\_ ones = \_\_\_\_\_

Work out the wholes.



## Key Questions:

- What numbers are you adding together?
- How many ones are there in each number?
- How many ones are there altogether?
- How many tens are there in each number?
- How many tens are there altogether?
- Can you make an exchange? Why?
- When adding, did you include the ten from your exchange?

## Stem Sentences:

- \_\_\_\_\_ ones + \_\_\_\_\_ ones = \_\_\_\_\_ ones  
 \_\_\_\_\_ tens + \_\_\_\_\_ tens = \_\_\_\_\_ tens
- \_\_\_\_\_ has \_\_\_\_\_ tens and \_\_\_\_\_ ones.
- There are \_\_\_\_\_ ones altogether. There are \_\_\_\_\_ tens altogether. \_\_\_\_\_ tens and \_\_\_\_\_ ones is \_\_\_\_\_.
- There are \_\_\_\_\_ ones, so I do/do not need to make an exchange.

## Key Vocabulary:

add  
 subtract  
 number bonds  
 tens  
 ones  
 to 10  
 equal to  
 partition  
 exchange

# Maths – Geometry

YEAR 2  
Block 3

## Small Steps:

1. Recognise 2D and 3D shapes
2. Count sides on 2D shapes
3. Count vertices on 2D shapes
4. Draw 2D shapes
5. Lines of symmetry on shapes
6. Use lines of symmetry to complete shapes
7. Sort 2D shapes
8. Count faces on 3D shapes
9. Count edges on 3D shapes
10. Count vertices on 3D shapes
11. Sort 3D shapes
12. Make patterns with 2D and 3D shapes

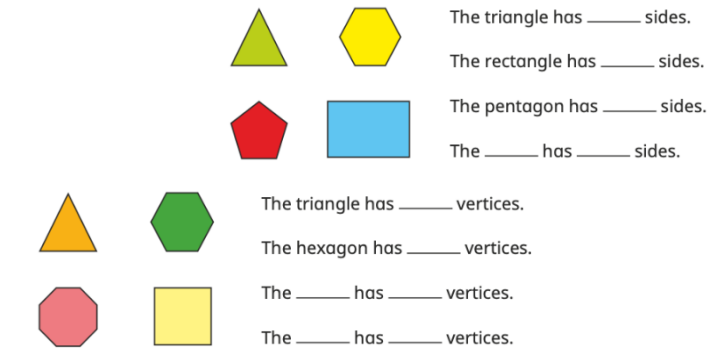
Here are some shapes.



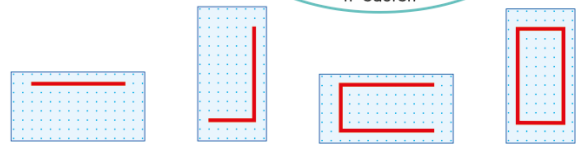
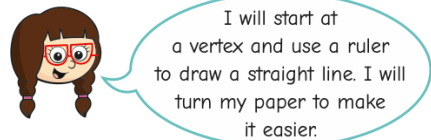
Which of the shapes are 2-D?

Which of the shapes are 3-D?

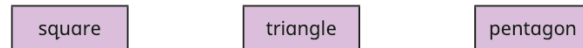
Can you find any other 2-D and 3-D shapes in your classroom?



Jo is drawing a rectangle on dotted paper.



Draw the shapes on dotted paper.



Which shape was the easiest to draw?

Which was the hardest?

Tiny draws a 2-D shape.

This is a pentagon.

Do you agree with Tiny?  
Why?

## Key Questions:

- What is the difference between a 2D and a 3D shape?
- What is the name of this shape? How do you know?
- Does a \_\_\_\_\_ always look the same? Can you think of some examples?
- What 2D shapes can you see on this 3D shape?
- Which shape is the odd one out? How do you know?
- What is a side?
- How many sides does a \_\_\_\_\_ have?
- What is the name of a shape with \_\_\_\_\_ sides?
- What is a vertex? How can you count them accurately?
- How many vertices does a \_\_\_\_\_ have?
- How many sides does this shape have? How many vertices does it have? What do you notice?
- How can you accurately draw a \_\_\_\_\_? Is there more than one way to draw a \_\_\_\_\_?

## Stem Sentences:

- This shape is a \_\_\_\_\_ because ...
- A \_\_\_\_\_ is a 2D shape.
- A \_\_\_\_\_ is a 3D shape.
- A \_\_\_\_\_ has \_\_\_\_\_ straight sides.
- I know I have counted all the sides because ...
- A \_\_\_\_\_ has \_\_\_\_\_ vertices and \_\_\_\_\_ sides.
- The number of vertices a shape has is \_\_\_\_\_ to the number of sides.
- To draw a \_\_\_\_\_, I need to draw \_\_\_\_\_ sides and \_\_\_\_\_ vertices.

## Key Vocabulary:

2D  
3D  
side  
vertex  
vertices  
ruler  
circle  
triangle  
quadrilateral  
square  
rectangle  
pentagon  
hexagon  
octagon  
sphere  
cone  
cuboid  
cube  
pyramid



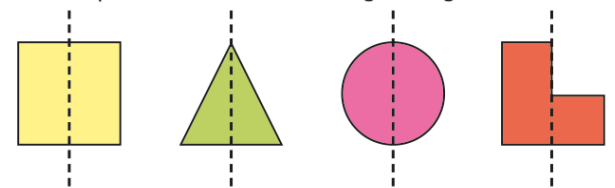
# Maths – Geometry

**YEAR 2**  
**Block 3**

## Small Steps:

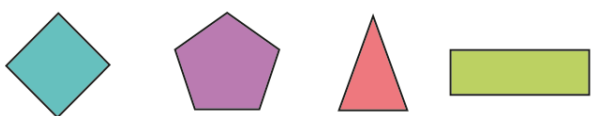
1. Recognise 2D and 3D shapes
2. Count sides on 2D shapes
3. Count vertices on 2D shapes
4. Draw 2D shapes
5. Lines of symmetry on shapes
6. Use lines of symmetry to complete shapes
7. Sort 2D shapes
8. Count faces on 3D shapes
9. Count edges on 3D shapes
10. Count vertices on 3D shapes
11. Sort 3D shapes
12. Make patterns with 2D and 3D shapes

Which shapes have a vertical line of symmetry?



How do you know if a shape has a vertical line of symmetry?

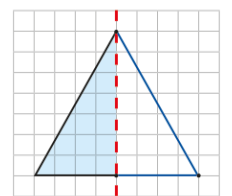
Draw a vertical line of symmetry on each shape.



Max is completing a triangle.

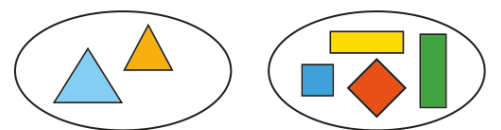


I know the other vertex is 4 squares from the mirror line.



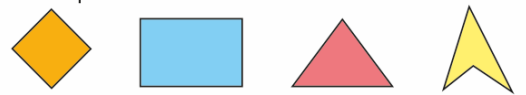
How does Max know this?

How are the shapes sorted?



Is there more than one answer?

Which shape is the odd one out?



How do you know?

## Key Questions:

- What does “symmetrical” mean?
- How do you know if a shape is symmetrical?
- How can you use a mirror to help you?
- Is the shape the same on both sides?
- How can you be accurate when drawing a vertical line of symmetry?
- How could marking the vertices and joining them up help you find the line of symmetry?
- What mistakes do you think you might make when completing this shape?
- How have you sorted the shapes?
- How do you know this shape is in the correct group?
- Are there any other ways to sort the shapes?
- What other shape could go in this group?
- What shape could not go in this group?

## Stem Sentences:

- This shape is symmetrical because...
- I know that this is a line of symmetry because ...
- A mirror can help me find lines of symmetry because ...
- The vertex is \_\_\_\_\_ squares away from the mirror line. I need to count \_\_\_\_\_ squares away from the mirror line on the opposite side.
- I put the \_\_\_\_\_ in this group because ...
- The shapes could have been sorted into \_\_\_\_\_ and \_\_\_\_\_, because ...
- \_\_\_\_\_ belongs/does not belong in this group because ...

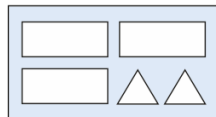
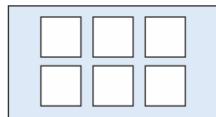
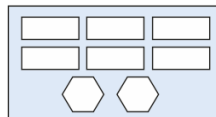
## Key Vocabulary:

- 2D
- 3D
- side
- vertex
- vertices
- ruler
- symmetrical
- symmetry
- vertical
- sort
- group

## Small Steps:

1. Recognise 2D and 3D shapes
2. Count sides on 2D shapes
3. Count vertices on 2D shapes
4. Draw 2D shapes
5. Lines of symmetry on shapes
6. Use lines of symmetry to complete shapes
7. Sort 2D shapes
8. Count faces on 3D shapes
9. Count edges on 3D shapes
10. Count vertices on 3D shapes
11. Sort 3D shapes
12. Make patterns with 2D and 3D shapes

Match the shapes to the faces.



Match the shapes to the labels.



1 curved surface and 2 circular faces

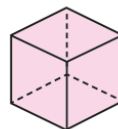
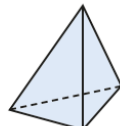
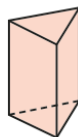
1 curved surface and 1 circular face

4 rectangular faces and 2 square faces

How many edges does each shape have?



How many vertices does each shape have?



How did you count them?

## Key Questions:

- What is a face?
- What is a curved surface?
- What is the difference between a face and a curved surface?
- How many faces does a \_\_\_\_\_ have?
- What is an edge?
- How is an edge different from a face?
- How many edges does a \_\_\_\_\_ have?
- What is a vertex? What are vertices?
- How is a vertex different from a face? How is it different from an edge?
- How many vertices does a \_\_\_\_\_ have?

## Stem Sentences:

- A \_\_\_\_\_ has \_\_\_\_\_ faces.
- A \_\_\_\_\_ has \_\_\_\_\_ faces and \_\_\_\_\_ curved edges.
- The 2D shapes that make up the faces of a \_\_\_\_\_ are ...
- A \_\_\_\_\_ has \_\_\_\_\_ edges
- A \_\_\_\_\_ has \_\_\_\_\_ faces and \_\_\_\_\_ edges.
- A \_\_\_\_\_ has fewer/more edges than a \_\_\_\_\_
- A \_\_\_\_\_ has \_\_\_\_\_ vertices
- A \_\_\_\_\_ has \_\_\_\_\_ vertices, \_\_\_\_\_ faces and \_\_\_\_\_ edges.

## Key Vocabulary:

2D  
3D  
vertex  
vertices  
face  
curved surface  
edge  
more than  
less than



# Maths – Geometry

YEAR 2  
Block 3

## Small Steps:

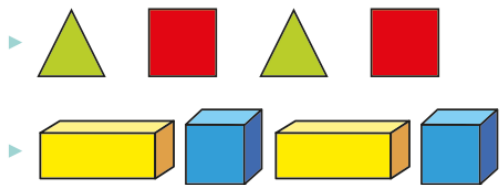
1. Recognise 2D and 3D shapes
2. Count sides on 2D shapes
3. Count vertices on 2D shapes
4. Draw 2D shapes
5. Lines of symmetry on shapes
6. Use lines of symmetry to complete shapes
7. Sort 2D shapes
8. Count faces on 3D shapes
9. Count edges on 3D shapes
10. Count vertices on 3D shapes
11. Sort 3D shapes
12. Make patterns with 2D and 3D shapes

Sort the shapes into the correct groups.

Sorting shapes into groups based on the following criteria:

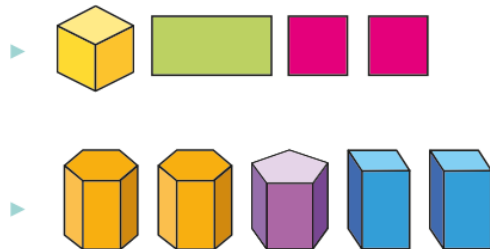
- no curved surfaces
- some curved surfaces
- fewer than 6 vertices
- 6 or more vertices
- some rectangular faces
- no rectangular faces

Draw the next two shapes in each pattern.



What is the 10th shape in each pattern?

Complete the patterns so that they are symmetrical.



## Key Questions:

- How can you sort these shapes?
- Which group does a \_\_\_\_\_ go into?
- How do you know this shape is in the correct group?
- Which shape is the odd one out?
- What shapes can you see in the pattern?
- Which shapes are repeating?
- What would be the next shape in the pattern? What would be the shape after that? What would be the 10<sup>th</sup> shape?
- Is the pattern repeating or symmetrical?
- How do you know that the next shape is not a \_\_\_\_\_?

## Key Vocabulary:

- 2D
- 3D
- sort
- group
- vertex
- vertices
- face
- curved surface
- side
- edge
- symmetrical
- symmetry
- repeating

## Stem Sentences:

- \_\_\_\_\_ is the odd one out because ...
- My two groups are \_\_\_\_\_ and \_\_\_\_\_. A \_\_\_\_\_ belongs in \_\_\_\_\_
- I have sorted the shapes by ...
- The next shape will be a \_\_\_\_\_, because ...
- The shapes that are repeating are \_\_\_\_\_, \_\_\_\_\_, ...
- I know that the 10<sup>th</sup> shape in the pattern will be a \_\_\_\_\_, because ...

## Small Steps:

- Count money – pence
- Count money – pounds (notes and coins)
- Count money – pounds and pence
- Choose notes and coins
- Make the same amount
- Compare amounts of money
- Calculate with money
- Make a pound
- Find change
- Two-step problems

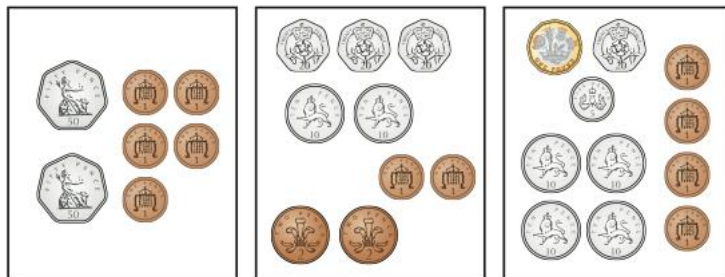
Complete the sentences to count the money.



- ▶ There are \_\_\_\_ 10p coins.  
The total value is \_\_\_\_ p.
- ▶ There are \_\_\_\_ 1p coins.  
The total value is \_\_\_\_ p.
- ▶ There is \_\_\_\_ p altogether.



Choose 53p from each box.



## Key Questions:

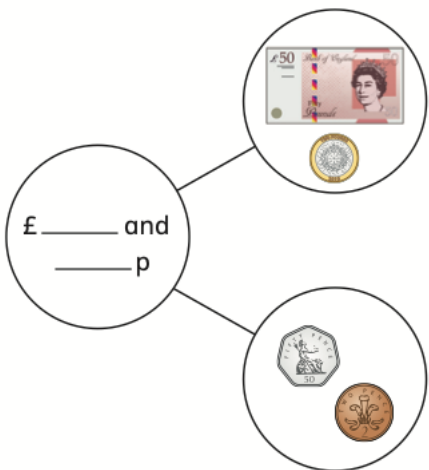
- What is this coin/note worth?
- Which coin/note is worth more?
- How many \_\_\_\_ are there?
- What is the total value of \_\_\_\_ 1p/2p/5p/10p coins?
- What is the total value of £1/£2 coins?
- What is the total value of £5/£10/£20/£50 notes?
- How does counting in 2s help you to count in 20s?
- How much money is there altogether?
- Which coins did you count first?
- What is the total value of \_\_\_\_ £ \_\_\_\_ notes/coins?
- What is the total value of \_\_\_\_ \_\_\_\_ coins?
- How much money do you need? How much money have you got? How much more do you need?
- Can you find another way to make the same amount?
- Does it matter if you count the pounds or pence first?
- Does swapping \_\_\_\_ for \_\_\_\_ change the total?

## Stem Sentences:

- There are \_\_\_\_ \_\_\_\_ coins/notes. The total value is £ \_\_\_\_
- There is £ \_\_\_\_ and \_\_\_\_ p altogether.
- There are \_\_\_\_ £ \_\_\_\_ notes/coins. There are \_\_\_\_ \_\_\_\_ p coins. There is £ \_\_\_\_ and \_\_\_\_ p in total.

## Key Vocabulary:

coin  
notes  
pence  
pounds  
total  
altogether  
amount  
value



## Small Steps:

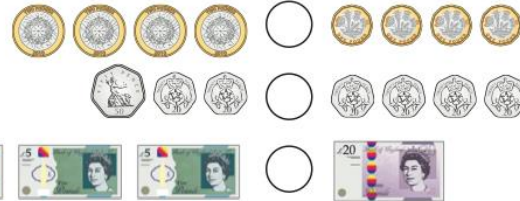
- Count money – pence
- Count money – pounds (notes and coins)
- Count money – pounds and pence
- Choose notes and coins
- Make the same amount
- Compare amounts of money
- Calculate with money
- Make a pound
- Find change
- Two-step problems

Mo has some money.

I have £2 and 23p.

What is the fewest number of coins that Mo could have?  
How do you know?

Write <, > or = to compare the amounts.



Write <, > or = to compare the amounts.

- £3 and 56p  £3 and 72p
- £5 and 29p  £1 and 29p
- £21 and 50p  £21 and 7p

How much more does the chocolate bar cost than the sweet?



## Key Questions:

- What is this coin/note worth?
- Which coin/note is worth more?
- How many \_\_\_ are there?
- What is the total value of \_\_\_ 1p/2p/5p/10p coins?
- What is the total value of £1/£2 coins?
- What is the total value of £5/£10/£20/£50 notes?
- How does counting in 2s help you to count in 20s?
- How much money is there altogether?
- Which coins did you count first?
- What is the total value of \_\_\_ £\_\_\_ notes/coins?
- What is the total value of \_\_\_ \_\_\_ coins?
- How much money do you need? How much money have you got? How much more do you need?
- Can you find another way to make the same amount?
- Does it matter if you count the pounds or pence first?
- Does swapping \_\_\_ for \_\_\_ change the total?

## Stem Sentences:

- There are \_\_\_ \_\_\_ coins/notes. The total value is £\_\_\_
- There is £\_\_\_ and \_\_\_p altogether.
- There are \_\_\_ £\_\_\_ notes/coins. There are \_\_\_ \_\_\_p coins. There is £\_\_\_ and \_\_\_p in total.

## Key Vocabulary:

- coin
- notes
- pence
- pounds
- total
- altogether
- amount
- value
- difference
- greater than
- less than
- equal to
- most
- least



## Small Steps:

1. Count money – pence
2. Count money – pounds (notes and coins)
3. Count money – pounds and pence
4. Choose notes and coins
5. Make the same amount
6. Compare amounts of money
7. Calculate with money
8. **Make a pound**
9. **Find change**
10. **Two-step problems**

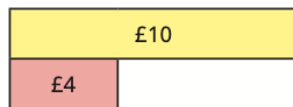
Draw money so that each purse has £1



Kay has £10

She buys a book for £4

Complete the bar model.



How much change does Kay get?

Kay has £33 in the bank.

She is given £40 more.

► How much money does Kay have now?

Complete the bar model and number sentence.



## Key Questions:

- How many pence are there in £1?
- Can you make £1 using \_\_\_p coins?
- Can you make £1 using different coins?
- How do bonds to 100 help you to make £1?
- How much money does \_\_\_ have? How much money does \_\_\_ spend? How much change will \_\_\_ get?
- If you have £\_\_\_ and spend \_\_\_p, how much change will you get?
- How much money is there in total?
- How much money is spent?
- What is the total cost of \_\_\_ and \_\_\_?
- How much more does \_\_\_ cost than \_\_\_?
- What is the difference in price?

## Key Vocabulary:

coin  
notes  
pence  
pounds  
total  
altogether  
amount  
value  
difference  
greater than  
less than  
equal to  
most  
least

## Stem Sentences:

- The difference between £\_\_\_ and \_\_\_p and £\_\_\_ and \_\_\_p is £\_\_\_. I know this because...
- One pound is equal to \_\_\_ pence
- There are \_\_\_ \_\_\_p coins in £1
- \_\_\_ + \_\_\_ = 100, so \_\_\_p + \_\_\_p = £1
- 100 - \_\_\_ = \_\_\_, so £1 - \_\_\_ = \_\_\_p
- The change from £\_\_\_ is \_\_\_p

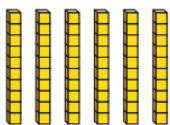


# Maths – Multiplication and Division

YEAR 2  
BLOCK 5

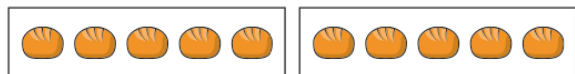
## Small Steps:

1. Recognise equal groups
2. Make equal groups
3. Add equal groups
4. Introduce the multiplication symbol
5. Multiplication sentences
6. Use arrays
7. Make equal groups – grouping
8. Make equal groups – sharing
9. The 2 times-table
10. Divide by 2
11. Doubling and halving
12. Odd and even numbers
13. The 10 times-table
14. Divide by 10
15. The 5 times-table
16. Divide by 5
17. The 5 and 10 times-table



There are \_\_\_\_\_ equal groups with \_\_\_\_\_ in each group.  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

Complete the sentences for each set of pictures.



There are \_\_\_\_\_ equal groups.

There are \_\_\_\_\_ in each group.

There are \_\_\_\_\_ groups of \_\_\_\_\_

There are \_\_\_\_\_ altogether.

Use 15 counters.



▶ Make 3 groups of 5

▶ Make 5 groups of 3

What is the same about the groups? What is different?

## Key Questions:

- Are the groups equal or unequal? How do you know?
- How can you make the groups equal?
- How many groups are there?
- How many are in each group?
- Do all equal groups look the same?
- How many equal groups can you put these counters into?
- Can you draw \_\_\_ groups of \_\_\_?
- How are 4 groups of 3 different to 3 groups of 4?
- Can you write this as an addition sentence?
- Which number sentence matches the picture?

## Stem Sentences:

- There are \_\_\_\_\_ equal groups. There are \_\_\_\_\_ in each group.
- There are \_\_\_\_\_ groups of \_\_\_\_\_. There are \_\_\_\_\_ altogether.
- The groups are equal/unequal because...
- There are 3 equal groups with \_\_\_\_\_ in each group. There are 3 equal groups of \_\_\_\_\_  
 \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

## Key Vocabulary:

- groups
- equal
- unequal
- total
- addition
- repeated addition

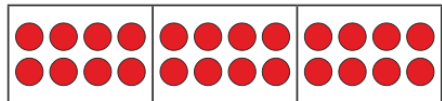


# Maths – Multiplication and Division

YEAR 2  
BLOCK 5

## Small Steps:

1. Recognise equal groups
2. Make equal groups
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17. The 5 and 10 times-table

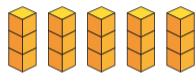


There are \_\_\_\_ equal groups with \_\_\_\_ in each group.

\_\_\_\_ + \_\_\_\_ + \_\_\_\_ = 24

\_\_\_\_ x \_\_\_\_ = 24

Complete the sentences to describe the equal groups.



\_\_\_\_ + \_\_\_\_ + \_\_\_\_ + \_\_\_\_ + \_\_\_\_ = 15

\_\_\_\_ x \_\_\_\_ = 15

| Picture | Multiplication     | Sentence                    |
|---------|--------------------|-----------------------------|
|         | $4 \times 10 = 40$ | 4 lots of 10 is equal to 40 |
|         | $35 = 7 \times 5$  |                             |
|         |                    | 6 lots of 3 is equal to 18  |

Look at the two groups of counters.



What is the same? What is different?  
Which group of counters is easier to count? Why?

## Key Questions:

- Is repeated addition always the most efficient method? Why?
- What does the multiplication symbol look like?
- What is the same about repeated addition and multiplication? What is different?
- Can you think of a story to match the multiplication?
- How many equal groups can you see? How many are in each group?
- What does the symbol mean?
- What do the numbers represent?
- How can you organise the counters to help you find the total? How many rows and columns are there?
- What multiplication can you see in the array?
- Is it easier to count in \_\_\_\_s or \_\_\_\_s to find the total?

## Stem Sentences:

- There are 3 equal groups with \_\_\_\_ in each group. There are 3 equal groups of \_\_\_\_  
\_\_\_\_ + \_\_\_\_ + \_\_\_\_ = \_\_\_\_  
\_\_\_\_ x \_\_\_\_ = \_\_\_\_
- \_\_\_\_ lots of \_\_\_\_ = \_\_\_\_
- \_\_\_\_ multiplied by \_\_\_\_ is equal to \_\_\_\_
- There are \_\_\_\_ rows and \_\_\_\_ columns.
- In this array, I can see \_\_\_\_ x \_\_\_\_ and \_\_\_\_ x \_\_\_\_
- There are \_\_\_\_ x \_\_\_\_ = \_\_\_\_ altogether

## Key Vocabulary:

- groups
- equal
- unequal
- total
- equal to
- addition
- repeated addition
- multiplication
- array
- row
- column



# Maths – Multiplication and Division

YEAR 2  
BLOCK 5

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There are 20 buckets.

▶ Circle groups of 5

How many groups did you circle?

▶ Complete the number sentence.

$$20 \div 5 = \underline{\quad}$$

Does it matter how you circle the groups of 5?



Share 12 cubes equally between 4 boxes.

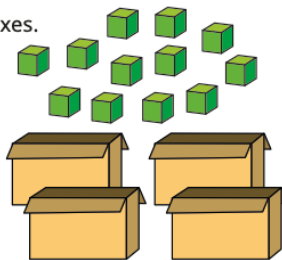
Complete the sentences.

There are \_\_\_\_\_ cubes altogether.

There are \_\_\_\_\_ boxes.

There are \_\_\_\_\_ cubes in each box.

$$12 \div \underline{\quad} = \underline{\quad}$$



Match the pictures to the multiplications.



$$4 \times 2$$



$$5 \times 2$$



$$3 \times 2$$

## Key Questions:

- How many do you have altogether?
- How many are you going to put into each group? How many groups do you have?
- How can you use a number line to show equal groups?
- How are multiplication and division linked?
- What does this symbol (x) represent? What does each number represent?
- What does this symbol (÷) represent? What does each number represent?
- How is sharing different from grouping? How is it similar?
- How can you show counting in 2s?
- How do you know what \_\_\_ lots of 2 are?
- If you know what 5 x 2 is, how can you work out 6 x 2?
- Can you show the multiplication another way?

## Stem Sentences:

- There are \_\_\_ altogether. I have put them into equal groups of \_\_\_. There are \_\_\_ groups.
- \_\_\_ ÷ \_\_\_ = \_\_\_
- \_\_\_ shared equally between \_\_\_ groups is equal to \_\_\_
- \_\_\_ x 2 is the same as \_\_\_ lots of 2
- \_\_\_ multiplied by 2 is equal to \_\_\_

## Key Vocabulary:

- groups
- equal
- unequal
- total
- equal to
- addition
- repeated addition
- multiplication
- array
- row
- column
- sharing
- grouping
- division



# Maths – Multiplication and Division

YEAR 2  
BLOCK 5

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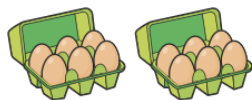
Complete the sentences.

There are 12 eggs altogether.

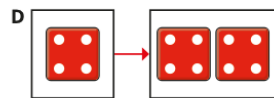
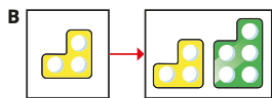
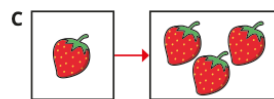
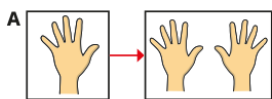
There are \_\_\_\_ groups.

There are \_\_\_\_ eggs in each group.

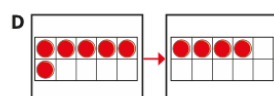
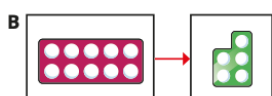
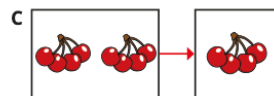
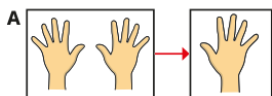
$12 \div 2 = \underline{\quad}$        $\underline{\quad} \times 2 = 12$



Which pictures show doubling?



Which pictures show halving?



Tiny is looking at odd and even numbers.



30 is an odd number because 3 is an odd number.

Do you agree with Tiny?

Explain your answer.



## Key Questions:

- How can the 2 times-table help you?
- How are division and multiplication linked?
- How can making/drawing an array help you?
- How many groups of 2 can you make?
- How can you share this between 2 equal groups?
- How can you use a number line to complete the division?
- What does “double” mean?
- What does “halve” mean?
- How do you double a number?
- How do you halve a number?
- How is doubling linked to the 2 times-table?
- How is halving linked to the 2 times-table?
- What do you notice about odd/even numbers?
- How do you know if a number is odd/even?
- What digit is in the ones column? Why is this important?

## Stem Sentences:

- \_\_\_\_ divided by 2 is equal to \_\_\_\_
- Double \_\_\_\_ is \_\_\_\_
- Half of \_\_\_\_ is \_\_\_\_
- Even numbers have \_\_\_\_ in the ones column.
- Odd numbers have \_\_\_\_ in the ones column.
- Even numbers can be divided by \_\_\_\_ to give a whole number answer.

## Key Vocabulary:

groups  
equal  
unequal  
total  
equal to  
addition  
repeated addition  
multiplication  
array  
row  
column  
sharing  
grouping  
division  
double  
halve  
odd  
even  
digit



# Maths – Multiplication and Division

**YEAR 2  
BLOCK 5**

## Small Steps:

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14. Divide by 10
15. The 5 times-table
16. Divide by 5
17. The 5 and 10 times-table

Complete the sentences for each picture.

\_\_\_\_\_ x 10 = \_\_\_\_\_

There are \_\_\_\_\_ altogether.



Ben and Sam both draw bar models to show  $7 \times 5$

|     |    |   |   |   |   |   |   |
|-----|----|---|---|---|---|---|---|
| Ben | 35 |   |   |   |   |   |   |
|     | 5  | 5 | 5 | 5 | 5 | 5 | 5 |
| Sam | 35 |   |   |   |   |   |   |
|     | 7  | 7 | 7 | 7 | 7 | 7 | 7 |

What is the same and what is different about their bar models?

Apples are sold in packs of 10

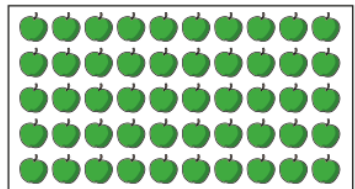
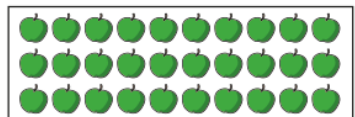
Complete the sentences for the number of packs that can be made from each set of apples.

There are \_\_\_\_\_ apples.

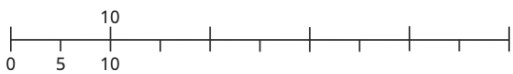
There are \_\_\_\_\_ apples in each group.

There are \_\_\_\_\_ groups.

\_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_



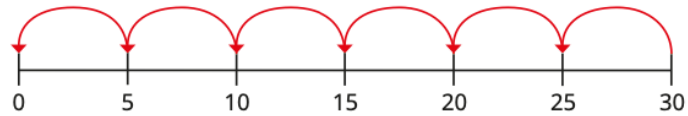
Complete the number line.



Which numbers are in both the 5 times-table and the 10 times-table?

Which numbers are only in the 5 times-table?

$30 \div 5$



## Key Questions:

- How can you show counting in 10s?
- How do you know what \_\_\_ lots of 10 are?
- How can you use base 10 to help you find the answer?
- How are multiplication and division linked?
- How can you use a number line to complete the division?
- How can you show counting in 5s?
- What do you notice about the ones column of the numbers in the 5 times-table?
- How are the 5 times-table and 10 times-table similar? How are they different?
- Which numbers are in the 5 times-table? Which numbers are in the 10 times-table? Which numbers are in both? What do you notice?
- What patterns can you spot?

## Stem Sentences:

- \_\_\_\_\_ x 10 is the same as \_\_\_\_\_ lots of 10
- There are \_\_\_\_\_ altogether. There are \_\_\_\_\_ in each group. There are \_\_\_\_\_ groups.
- \_\_\_\_\_ ÷ \_\_\_\_\_ = \_\_\_\_\_
- \_\_\_\_\_ x 5 is the same as \_\_\_\_\_ lots of 5
- All numbers in the \_\_\_\_\_ times-table are also in the \_\_\_\_\_ times-table.
- \_\_\_\_\_ x 10 = \_\_\_\_\_ x 5

## Key Vocabulary:

- groups
- equal
- unequal
- total
- equal to
- addition
- repeated addition
- multiplication
- array
- row
- column
- sharing
- grouping
- division
- double
- halve
- odd
- even
- digit

## Small Steps:

1. Measure in centimetres
2. Measure in metres
3. Compare lengths and heights
4. Order lengths and heights
5. Four operations with lengths and height

There are three teddies called Flo, Tim and Bo.



- Flo is 15 cm taller than Tim.
- Tim is 3 cm shorter than Bo.
- Bo is 42 cm tall.

How tall is Flo?

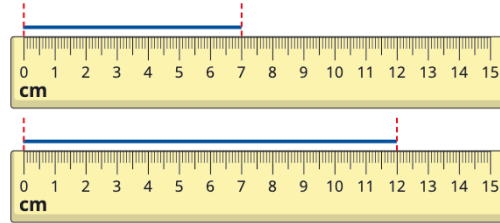
How tall is Tim?

How much taller is Flo than Bo?

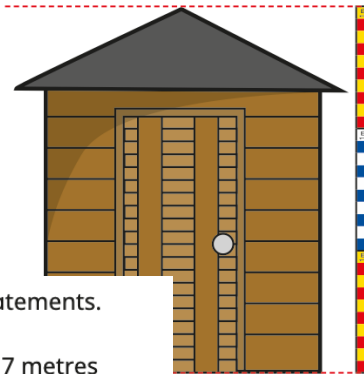
How did you work out the answers?



How long is each line?



What is the height of the shed?

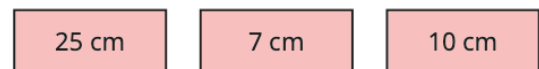


Write  $<$ ,  $>$  or  $=$  to complete the statements.

- 7 metres  17 metres
- 18 cm  18 m
- 32 cm  32 centimetres

Write the lengths in order.

Start with the shortest length.



## Key Questions:

- What do the numbers on the ruler mean?
- Where do you need to start/end measuring?
- What does "cm" mean?
- Why do you need to start measuring from zero?
- How long is a metre stick?
- What is "m" short for?
- Is a metre longer or shorter than a centimetre?
- Which object is longer/taller/shorter? How do you know?
- Which is longer, 1 cm or 1 m?
- What does "q/G/= " mean?
- What is the difference between "longer" and "taller"?
- What do you need to do first? How do you know?
- Do you need to add or subtract? Do you need to multiply or divide?
- Are you working with centimetres or metres?

## Stem Sentences:

- The start of the object is lined up with \_\_\_ cm. The end of the object is lined up with \_\_\_ cm. The length/height of the object is \_\_\_ cm.
- cm is short for \_\_\_
- The start of the object is lined up with \_\_\_ m. The end of the object is lined up with \_\_\_ m. The length/height of the object is \_\_\_ m.
- m is short for \_\_\_
- \_\_\_ is \_\_\_ cm/m long/tall
- \_\_\_ is longer/taller/shorter than \_\_\_

## Key Vocabulary:

length  
height  
longer  
taller  
shorter  
measure  
difference  
centimetre  
cm  
metre  
m  
greater than  
less than  
equal to

# Maths – Mass, capacity and temperature

## Small Steps:

1. Compare mass
2. Measure in grams
3. Measure in kilograms
4. Four operations with mass
5. Compare volume and capacity
6. Measure in millilitres
7. Measure in litres
8. Four operations with volume and capacity
9. Temperature

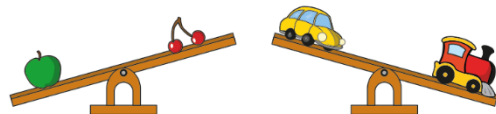
Sort Whitney and the objects into the groups.

measure in g      measure in kg

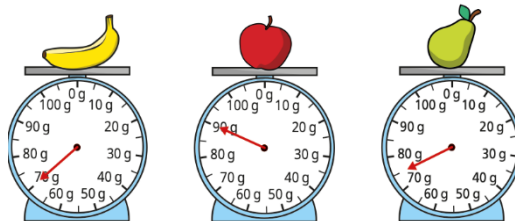
Did your partner sort in the same way?

Find or think of some more objects to go into each group.

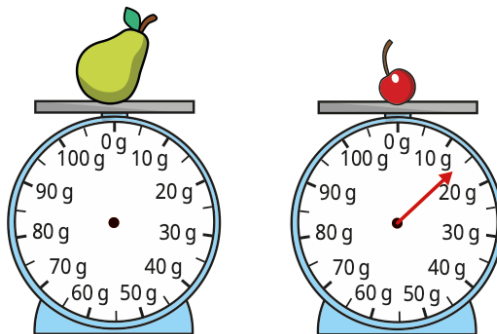
Complete the sentences for each picture.



The \_\_\_\_\_ is heavier than the \_\_\_\_\_  
The \_\_\_\_\_ is lighter than the \_\_\_\_\_



How are these scales different from balance scales? How are they similar?



- A tomato has a mass of 40 g.
- An apple is 50 g heavier than the tomato.
- A pear is 20 g lighter than the apple.
- What is the mass of the pear?

## Key Questions:

- What does “heavier”/”lighter” mean?
- What does ”q/G/=“ mean?
- How do you use a balance scale?
- Which object is heavier/lighter? How do you know?
- Which object has the greater/small mass? How do you know?
- What is mass?
- How are circular scales different from balance scales?
- What is greater, a kilogram or a gram?
- Do you need to add or subtract to solve the problem?
- How can you represent this using a bar model/part-whole model? How can you write this as a number sentence?
- Is there more than one way to solve the problem?

## Stem Sentences:

- The \_\_\_ is heavier/lighter than the \_\_\_\_\_
- \_\_\_ q/G/= \_\_\_\_\_
- The mass of \_\_\_ is \_\_\_ g/kg.
- The arrow is pointing to \_\_\_\_\_. The \_\_\_\_\_ has a mass of \_\_\_g/kg.
- The arrow is pointing between \_\_\_\_\_ and \_\_\_\_\_, so the object has a mass of around \_\_\_g/kg.
- To find the total mass, I need to \_\_\_\_\_ the mass of \_\_\_\_\_ and \_\_\_\_\_.
- First, I need to... Then, I need to...

## Key Vocabulary:

- heavier
- lighter
- equal to
- mass
- balance scales
- circular scales
- kilogram
- gram
- addition
- subtraction
- multiplication
- division
- bar model
- part-whole



# Maths – Mass, capacity and temperature

## Small Steps:

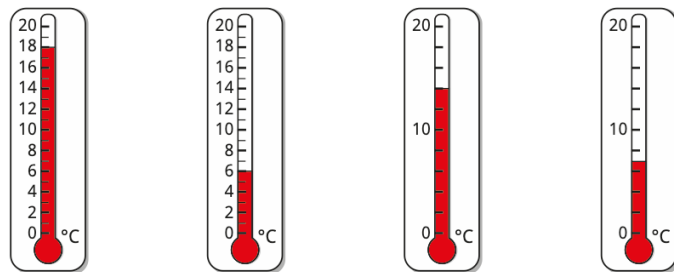
1. Compare mass
2. Measure in grams
3. Measure in kilograms
4. Four operations with mass
5. Compare volume and capacity
6. Measure in millilitres
7. Measure in litres
8. Four operations with volume and capacity
9. Temperature

Glass C has \_\_\_\_\_ water than glass B.

Glass A has \_\_\_\_\_ water than glass C, but \_\_\_\_\_ water than glass B.

Draw a line on each beaker to show the volume of liquid.

What temperature is shown on each thermometer?



Write the temperatures in order, starting with the coldest.

## Key Questions:

- What is volume/capacity?
- What is the difference between volume and capacity?
- Which container has the greater/smaller capacity? How do you know?
- How does the scale on the container help?
- What mistakes do you think people may make when reading this scale?
- How are litres and millilitres different?
- Would you measure the capacity of this container in litres or millilitres?
- Do you need to add or subtract to solve the problem?
- How can you represent this using a bar model/part-whole model? How can you write this as a number sentence?
- Is there more than one way to solve the problem?
- What is temperature?
- What does “C” stand for? What does the scale show?
- How do you know that you have read the temperature correctly?

## Stem Sentences:

- The volume of liquid in A is \_\_\_ than the volume of liquid in B.
- The capacity of container A is \_\_\_ than the capacity of container B.
- The container has a capacity of \_\_\_ millilitres/litres.
- The volume of \_\_\_ in the \_\_\_ is \_\_\_ millimetres/litres.
- 1 litre is \_\_\_ than 1 millilitre.
- First, I need to... Then, I need to...
- The temperature of/in \_\_\_ is \_\_\_ °C

## Key Vocabulary:

- capacity
- volume
- greater than
- less than
- equal to
- unit
- litres
- millilitres
- scale
- addition
- subtraction
- multiply
- division
- temperature
- Celsius
- thermometer

Will all the juice fit into the jug?



How do you know?

