



## Reception – Autumn 2

This term your child will be learning about:

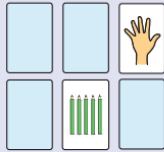
# 1,2,3,4,5

Place six picture cards showing 4 or 5 items face-down on the table. Children take turns to turn over two cards each.

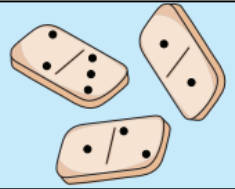
If the two cards show the same quantity, they can keep the cards. Otherwise, they turn the cards face-down again.

The winner is the child with the most cards when all the cards have been taken.

Once children know the rules, leave out resources for them to lead their own game.



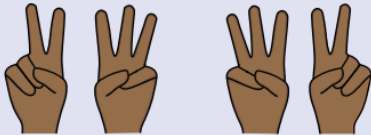
Encourage children to talk about how many dots they will put on each side of the domino to make the total.



Prompt children to count to 5 on their fingers and count back from 5

Encourage children to show 4 or 5 using their fingers. Is there more than one way?

Is it possible to show 4 or 5 using two hands rather than just one?



Hide 4 or 5 pebbles between two buckets.

Tell children how many pebbles there are altogether.

Prompt them to explore different possibilities of how many pebbles could be in each bucket.

How many different ways can they find?

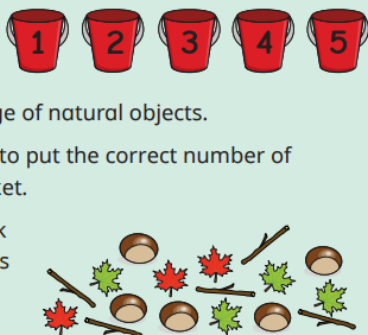
To extend this, you could use three buckets.



Provide children with buckets with the labels 1 to 5 on the front and a range of natural objects.

Encourage children to put the correct number of objects in each bucket.

Ask a friend to check that each bucket has the correct number.



### Key Questions

How many are there?

How many are there now?

What is 1 more than ?

What is the number after ?

### Vocabulary

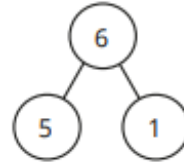
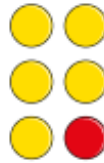
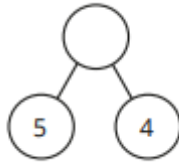
- how many more?
- fewer
- lesser
- more
- one more
- one less



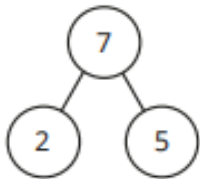
Year 1 – Autumn 2

# This term your child will be learning about: Addition & subtraction within 10

**Fluency – Add by counting on and add by making number bond facts**



$$\begin{aligned} 1 + \underline{\quad} &= 6 \\ \underline{\quad} + 1 &= 6 \\ \underline{\quad} &= \underline{\quad} + 1 \\ 6 &= \underline{\quad} + \underline{\quad} \end{aligned}$$



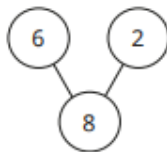
$$\begin{aligned} \triangleright 7 - 2 &= \underline{\quad} \\ \triangleright 7 - 5 &= \underline{\quad} \end{aligned}$$



$$\begin{aligned} \underline{\quad} + \underline{\quad} &= \underline{\quad} & \underline{\quad} &= \underline{\quad} + \underline{\quad} \\ \underline{\quad} + \underline{\quad} &= \underline{\quad} & \underline{\quad} &= \underline{\quad} + \underline{\quad} \\ \underline{\quad} - \underline{\quad} &= \underline{\quad} & \underline{\quad} &= \underline{\quad} - \underline{\quad} \\ \underline{\quad} - \underline{\quad} &= \underline{\quad} & \underline{\quad} &= \underline{\quad} - \underline{\quad} \end{aligned}$$

**Problem Solving - Compare and order numbers**

Correct Tiny's mistake.



$$6 = 2 + 8$$

Which number bond is the odd one out?

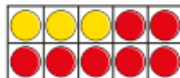
$$3 + 4$$

$$5 + 2$$

$$6 + 1$$

$$3 + 5$$

Here is a ten frame.



How many yellow counters are there?

How many red counters are there?

How many counters are there in total?

Complete the number sentence.

$$\underline{\quad} + \underline{\quad} = 10$$

## Vocabulary

- same
- different
- compare
- number bond

**Key Skills: Counting in multiples of 10 in order up to 120**



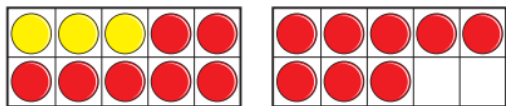
# Year 2 – Autumn 2

## This term your child will be learning about:

# Addition & Subtraction

### Fluency

Here is a number shown on ten frames.



Complete the fact family to match the ten frames.

$$\underline{\quad} + \underline{\quad} = 18$$

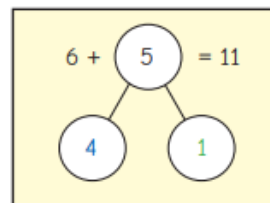
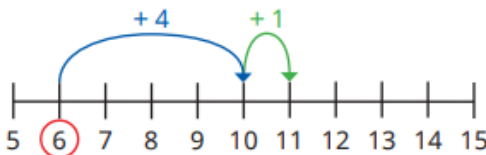
$$18 - \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} + \underline{\quad} = 18$$

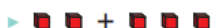
$$18 - \underline{\quad} = \underline{\quad}$$

Can you write any of the facts another way?

Here is Jo's method for working out  $6 + 5$



Complete the sentences to match the base 10



\_\_\_\_\_ ones + \_\_\_\_\_ ones = \_\_\_\_\_ ones

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



\_\_\_\_\_ tens + \_\_\_\_\_ tens = \_\_\_\_\_ tens

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

### Problem Solving -

Tiny is working out the missing number.



$$60 - \square = 10$$

The missing number is 5, because  
 $60 - 5 = 55$

Do you agree with Tiny?

Complete the number sentences.

$$100 - 10 = \underline{\quad}$$

$$100 - 20 = \underline{\quad}$$

$$100 - 30 = \underline{\quad}$$

$$100 - 40 = \underline{\quad}$$

What do you notice?

Sam needs 100 balloons.



I have some balloons, but I need 30 more.

How many balloons does Sam have?

### Vocabulary

tens

ones

number bonds

partition

**Key Skills: Count in steps of 2 and 5 from 0 up to 12x fluently**



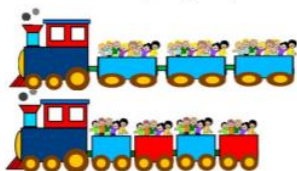
Year 3 – Autumn 2

This term your child will be learning about:

# Multiplication and Division

## Fluency:

Describe the equal groups.



\_\_\_ equal groups of \_\_\_

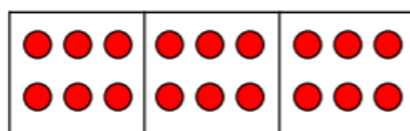
\_\_\_ equal groups of \_\_\_

How many petals altogether?



Write the calculation.

Complete the sentences to describe the equal groups.



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

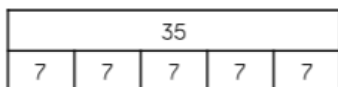
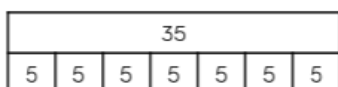
\_\_\_ × \_\_\_ = 18

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

There are three \_\_\_.

## Problem Solving:

Tommy and Rosie have both drawn bar models to show  $7 \times 5$

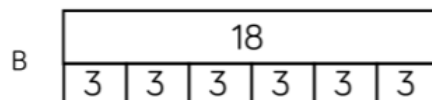
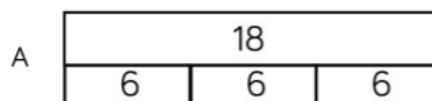


What's the same and what is different about their bar models?

Jack has 18 seeds.

He plants 3 seeds in each pot.

Which bar model matches the problem?



## Mathematical Talk:

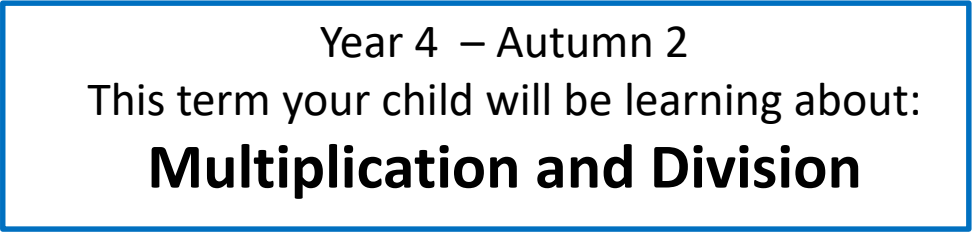
How many equal groups can you make?

How many groups of \_\_\_ can you make from \_\_\_?

How many lots of \_\_\_ do we have?

Can you share the number into \_\_\_ equal groups?

**Key Skills: Recall multiples of 3 up to  $12 \times 3$  in any order**



**Key Skills: Fluently count in 6's in order up to  $12 \times 6$**



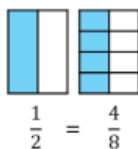
# Year 5 – Autumn 2

## This term your child will be learning about:

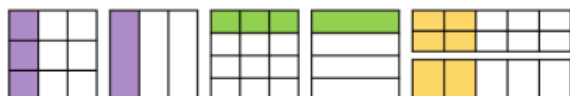
# Fractions

### Fluency:

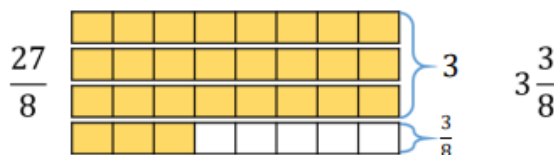
Take two pieces of paper the same size.  
Fold one piece into two equal pieces.  
Fold the other into eight equal pieces.  
What equivalent fractions can you find?



Use the models to write equivalent fractions.



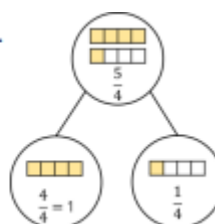
Tommy converts the improper fraction  $\frac{27}{8}$  into a mixed number using bar models.



Complete the part-whole models and sentences.

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

\_\_\_\_ quarters = \_\_\_\_ whole and \_\_\_\_ quarter.



### Problem Solving.

Jack has added 3 fractions together to get an answer of  $\frac{17}{18}$

How many different ways can you balance the equation?



What 3 fractions could he have added?

How many different possibilities can you find for each equation?

$$\frac{5}{9} + \frac{\square}{9} = \frac{8}{9} + \frac{\square}{9}$$

$$2\frac{\square}{8} = \frac{\square}{8}$$

$$2\frac{\square}{5} = \frac{\square}{5}$$

### Mathematical Talk:

How many quarters/halves/eighths/fifths are there in a whole?  
How does multiplication support us in converting from mixed numbers to improper fractions?  
Can you convert the mixed numbers to improper fractions?

**Key Skills:** identify multiples and factors, including finding all factor pairs of a number



# Year 6 – Autumn 2

## This term your child will be learning about:

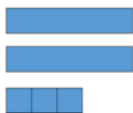
# Fractions

**Fluency:**

Use the models to write equivalent fractions.



Jack uses bar models to convert a mixed number into an improper fraction.



$2 \frac{3}{5} = \square \text{ wholes} + \square \text{ fifths}$



$2 \text{ wholes} = \square \text{ fifths}$   
 $\square \text{ fifths} + \square \text{ fifths} = \square \text{ fifths}$

Use the bar models to compare  $\frac{3}{4}$  and  $\frac{2}{3}$



\_\_\_\_\_ is greater than \_\_\_\_\_

\_\_\_\_\_ is less than \_\_\_\_\_

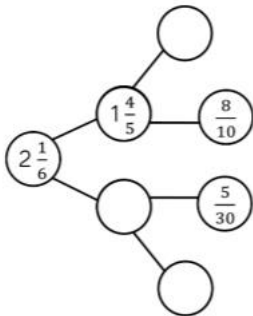
**Problem Solving:**

How many different possibilities can you find for each equation?

$2 \frac{\square}{8} = \frac{\square}{8}$

$2 \frac{\square}{5} = \frac{\square}{5}$

Complete the part-whole model.



Fill in the missing numbers.

$4 \frac{5}{6} + \frac{\square}{\square} = 10 \frac{1}{3}$

Here is Rosie's method.  
What is the calculation?



**Mathematical Talk:**

- What are equivalent fractions?
- How many parts are in a whole?
- What is an improper fraction?
- How do you simplify a fraction to its lowest form?

**Key Skills: To recall equivalent fractions, decimals and percentage -  $\frac{1}{4} = 0.25 = 25\%$**