At-Home Investigation

Revising fractions:

Today we are going to draw each of the fractions listed below. Draw the lines in with a pen, then take a photo of what you have made to send to your teacher.

- One half $\frac{1}{2}$
- One quarter, two quarters, three quarters $\frac{1}{4}$ $\frac{2}{4}$ $\frac{3}{4}$
- One eighth, two eighths, five eighths, seven eighths $\frac{1}{8}$ $\frac{2}{8}$ $\frac{5}{8}$ $\frac{7}{8}$
- One third, two thirds $\frac{1}{3}$ $\frac{2}{3}$
- One fifth, two fifths, three fifths, four fifths $\frac{1}{5}$ $\frac{2}{5}$ $\frac{3}{5}$ $\frac{4}{5}$
- One tenth, five tenths $\frac{1}{10}$ $\frac{5}{10}$

| $\frac{1}{2}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$
$\frac{1}{8}$	$\frac{2}{8}$	$\frac{5}{8}$	$\frac{7}{8}$
$\frac{1}{3}$	$\frac{2}{3}$	$\frac{1}{5}$	$\frac{2}{5}$
$\frac{3}{5}$	$\frac{4}{5}$	$\frac{1}{10}$	$\frac{5}{10}$

Compare the size:

Now that you have made each fraction, answer the following questions.

1. Which is the largest?
2. Which is the smallest
3. Order the following fractions from smallest to largest: $\frac{3}{4}$ $\frac{4}{8}$ $\frac{2}{3}$ $\frac{3}{5}$ $\frac{5}{10}$

Fraction names are like racing

Fractions are named similarly to places in a race. Use this information to help you answer the questions below:

The cars below are having a race. Car number one crossed the finish line in first place. Car number two came in second place. What place did car number three come in?
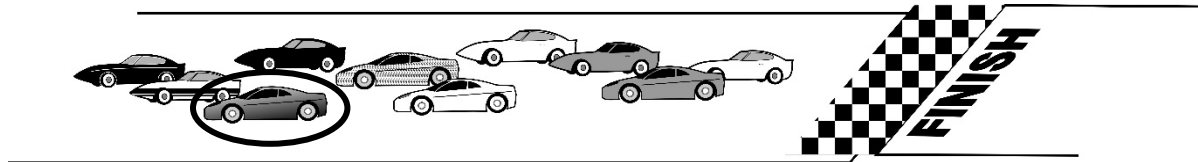
This is the **same word** as that used for when one whole is broken into three fair parts. What would one of these parts be called?
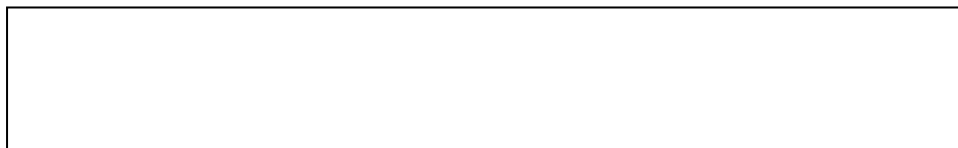
Divide the whole rectangle below into three fair parts. Write the name of each part on your picture.

What place would car number five come in?
This is the same word as that used for when one whole is broken into five fair parts. What would one of these parts be called?

Divide the rectangle below into five fair parts. Write the name of each part on the picture

Fraction symbols

Use the picture below to work out what the one means and what the four means for the symbol of one quarter. Fill in the boxes.
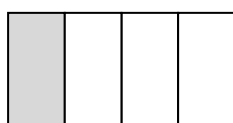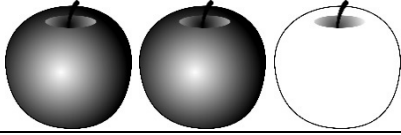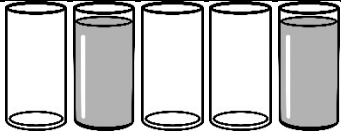
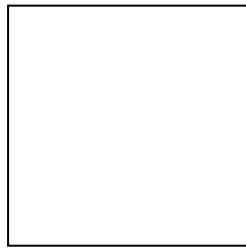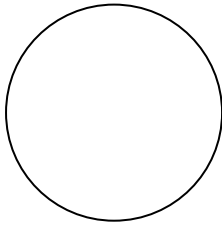$$\frac{1}{4}$$

Numerator: The 1 means:

Denominator: The 4 means:
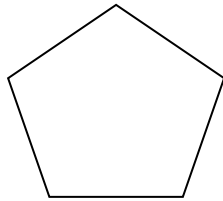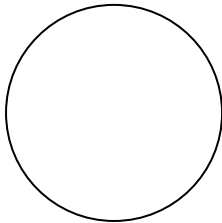
Putting it altogether: fill in the table

Picture	Words	Symbols
	One third of the apples are peeled	$\dfrac{1}{3}$
	Two thirds of the stickers are stars	

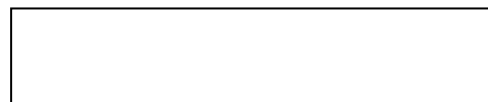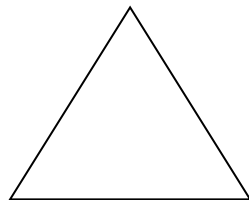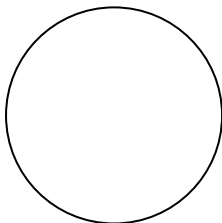*Draw the following fractions onto the shapes below:*

Draw halves:

Draw fifths:

Draw thirds:

Why are the fifths smaller than the thirds?

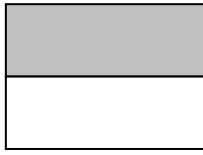What do you think tenths might look like? Try drawing them here.

How are the tenths similar to and different from fifths?
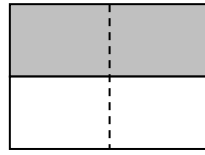
Equivalent fractions

*Different common fractions can be used to represent the same amount. These are called **equivalent fractions**. Use the diagrams below to help you to identify the common fractions.*
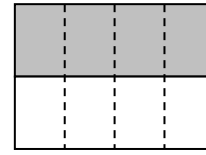
Example:

$^1/_2$ = $^2/_4$ = $^4/_8$
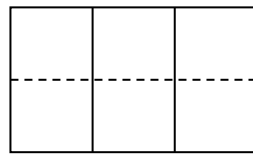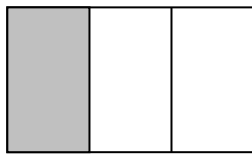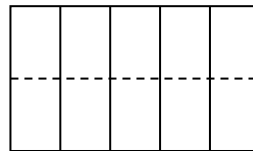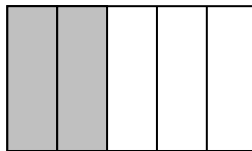
Colour the diagrams below and use them to help you answer the questions.

1. $^1/_3$ = how many sixths?   What is the pattern?

2. $^2/_5$ = how many tenths?   What is the pattern?

3. $^3/_4$ = how many twelfths?   What is the pattern?
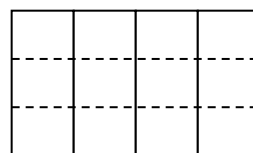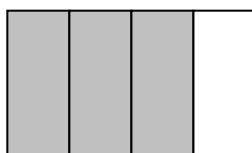
Look at the numbers in each numerator and denominator in the set of equivalent fractions.
What patterns do you see between the numbers?

Extension question:
Some kids were playing in the pool. One third of the group went and bought ice creams. There were 4 kids who bought ice creams. How many didn't buy ice creams?

Interleaved practice

Number:

1. Write the pattern that matches this description: **write multiples of 3 beginning with 6. Stop when you get to 60.**

2. If I take 157 from 1000, will my answer be odd or even? Explain your answer.

3. Show where these numbers would go on the number line: **250   675   920   1160**

4. 6 x ___ = 42 Show how you worked it out.

5. Write the decimal number for these fractions: $^1/_2$ $^6/_{10}$ $^4/_{10}$ $^1/_5$

Measurement/Geometry:

6. Add details to this thermometer to show what it looks like when the temperature is 24^0.

7. Give directions for how to get from the department store to the bus stop describing turns and approximate distances.

8. Draw an angle that is bigger than a right angle and one that is smaller than a right angle.
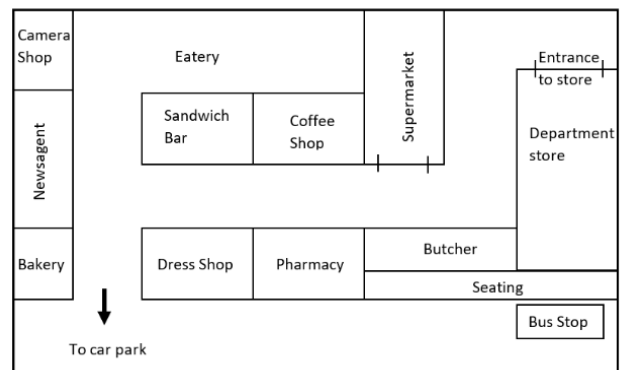
Chance/Data:

I am going to use this spinner to play a colour game.
List all of the possible results of my spins.
Which colour am I most likely to spin and which is least likely?

Friday: Connecting and Generalising Lesson

Fractions are not just shapes

*The following picture shows 30 cupcakes. Your job is to work out what **equivalent fractions** you could make with the cupcakes without having to cut any of them into pieces.*

You will need to start just by working out what fractions you could make with the 30 cupcakes. For example, you could make halves with two groups of 15. You couldn't make quarters though without having to cut some of the cakes. What others could you make?

When you have found some fractions, use the following page to circle each different fraction that you find and explain what it is. You need to find at least 2 sets of equivalent fractions, but there are more possible ones to find without cutting the cakes.
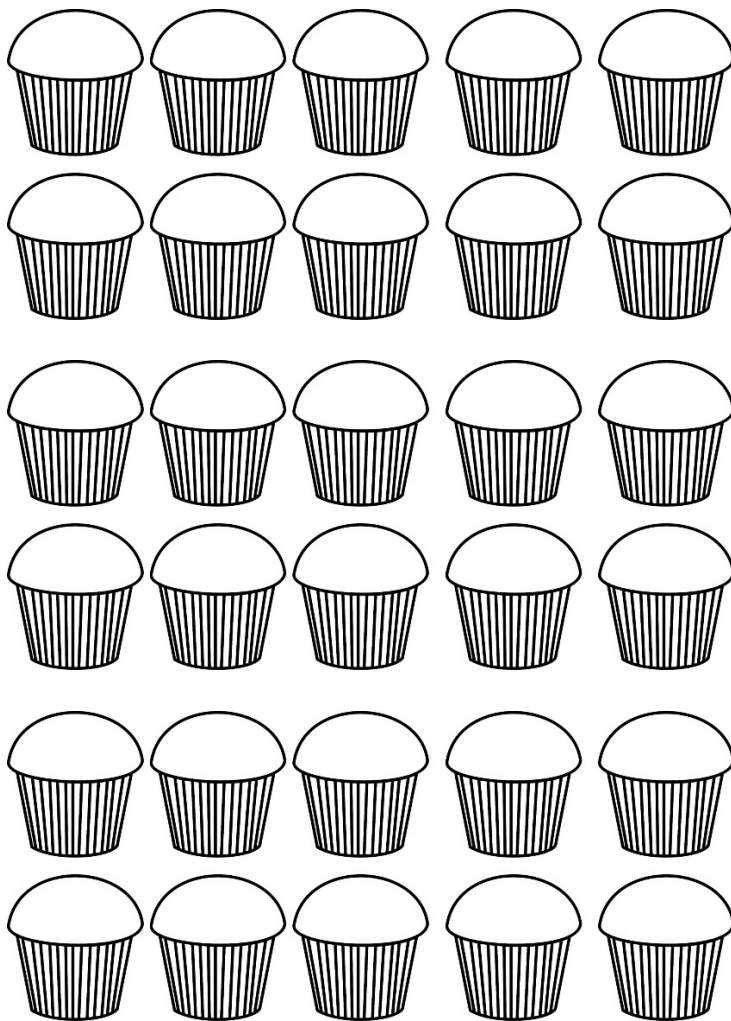
What equivalent fractions can you find? You need at least 2 sets.