



## Helping your child with maths in Primary 5

Whatever you do, make sure your children enjoy it.

If they struggle to understand, make mistakes, or get bored: keep calm, make it easier, change the subject, tell them a joke, play football, go to the park ... but please don't get cross or impatient - you could put them off maths for life. Some of the pupils already have a can't do attitude.

Much of the knowledge in this class relies on number facts being easily recalled. For example, to find common factors or to make simple conversions, knowledge of multiplication tables is essential. Any practice at home to keep these skills sharp will certainly be appreciated by your child's class teacher

Generally the advice is;

- Talk about and involve children in the situations in which you use maths in everyday life; Play games involving numbers and/or logic, such as card games, dominoes, darts, draughts, chess etc.; Stimulate their thinking at times of boredom, (such as when travelling), with mental activities **Be positive** about maths. Don't say things like "I can't do maths" or "I hated maths at school"; your child might start to think like that themselves. **Point out the maths in everyday life.** Include your child in activities involving maths such as using money, cooking and travelling. **Praise your child for effort rather than talent** - this shows them that by working hard they can always improve.

Numeracy and Mathematics is split into three main categories

- Number, money and measure
- Shape., Position and movement
- Information Handling

**Mental activities:**

- Practising and developing knowledge of addition and subtraction facts within 20 (7+8, 13-5 etc.) and multiplication and division facts to 10 x 10 (6x7, 35/5 etc.) Make it into a game if possible, e.g. have a set of cards numbered 1-10, pick a number such as 4, say 4 times the number on the card as each is turned over, keep all the cards you get right. On a journey, adult passenger times response, try to beat your own time.

**Little and Often** is the best advice, 5 minutes every day is better than a 25 minute session.

- Ask 'progressive' calculations, e.g. 7 + 6, 17 + 6, 27 + 6, 47 + 6, 147 + 6; 5 x 2, 50 x 2, 500 x 2, 500 x 20.
- Working out 2-digit additions and subtractions, multiplying and dividing 2-digit numbers by 1 digit numbers mentally. Talk about maths is very important. Talk about how to make it easier, e.g. for 28 + 15, call it 30 add 13 and that's easy; for 16 x 4, double 16, then double 32
- Open- ended activities, e.g. The answer's 25, what's the question? How can you use combinations of 3 and 6 to make different numbers? (Use each number as many times as you like with addition, subtraction, multiplication or division.)
- **HOT Seat/ Cold Seat** – play a game based on the recall of facts. One person is the question master and the other two individuals are the contestants.

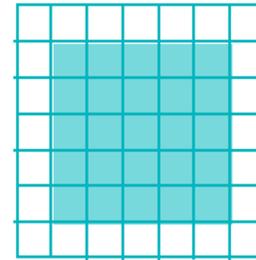
It could be a multiplication table challenge. The question master asks 7 x 7. The contestants respond as quickly as possible. The first to three gets to sit on a comfy chair.

**Shape work** There are many opportunities in the environment to consolidate and introduce the terms.

**Area and perimeter**

Area is the term used to define the amount of space taken up by a 2D shape or surface. We measure area in square units : cm<sup>2</sup> or m<sup>2</sup>.

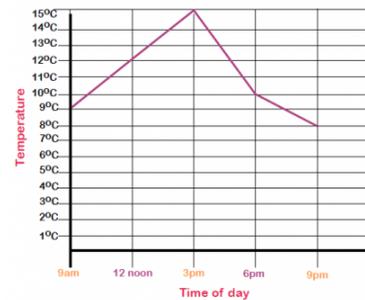
Area is calculated by **multiplying the length of a shape by its width**. In this case, we could work out the area of this rectangle even if it wasn't on squared paper, just by working out 5cm x 5cm = 25cm<sup>2</sup> (the shape is not drawn to scale).



The **perimeter** is the distance around the edge of a 2D shape. At primary school, teachers will sometimes talk about an ant walking around the edge of a shape to make this concept clear to the children.

The **perimeter** of a shape is always calculated by adding up the length of each of the side

**Information Handling** - pupils will be learning to draw line graphs.



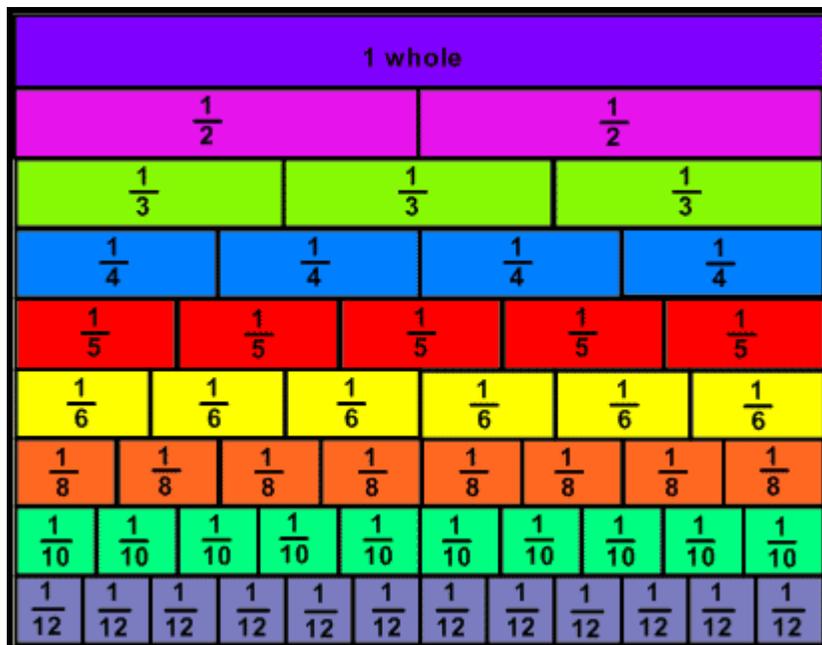
	<b>Equilateral triangle:</b> A triangle with 3 equal sides and 3 equal angles.		<b>Isosceles triangle:</b> A triangle with 2 equal sides.
	<b>Scalene triangle:</b> A triangle with 3 sides that are all unequal.		<b>Right-angled triangle:</b> A triangle that has a right angle.
	<b>Quadrilateral:</b> A four-sided shape.		<b>Rhombus:</b> A quadrilateral with both pairs or opposite sides parallel and all sides equal length. (Differs from a square in that angles are NOT 90°).
	<b>Trapezium:</b> A quadrilateral with one pair of parallel sides.		<b>Parallelogram:</b> A quadrilateral with both pairs of opposite sides parallel and both pairs an equal length.
	<b>Kite:</b> A quadrilateral with two pairs of sides that are same length. One pair of diagonally opposite sides is equal.		<b>Polygon:</b> A polygon is a 2D shape with straight sides.

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|---|
| <ul style="list-style-type: none"> <li>• I can recognise and name quadrilaterals e.g. rectangle, kite, trapezium, rhombus, parallelogram.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• I can recognise and name triangles e.g. equilateral, isosceles, right-angled.</li> </ul>                     |
| <ul style="list-style-type: none"> <li>• I can use the properties of shapes to classify them into given groups or groups of my own design.</li> </ul> |
| <ul style="list-style-type: none"> <li>• I can construct a range of objects from their nets</li> </ul>  |
| <ul style="list-style-type: none"> <li>• I can identify right, acute, and obtuse angles.</li> </ul>   |
| <ul style="list-style-type: none"> <li>• I can draw right, acute and obtuse angles</li> </ul>   |
| <ul style="list-style-type: none"> <li>• I know and can use the eight point compass rose.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• I can use the compass points to describe, follow and record direction routes and journeys.</li> </ul>        |

**Fraction:** A fraction is a part of a whole.

### Fraction activities for pupils.

Children learn about equivalent fractions, understanding that  $\frac{1}{2}$  is the same as  $\frac{3}{6}$ , or  $\frac{8}{10}$  is the same as  $\frac{4}{5}$ . They start to learn about equivalence with the help of diagrams, but then need to move onto recognising equivalent fractions without having to see or draw a pictorial representation. You can help your child with equivalence by using a fraction wall (see above). You can ask your child questions such as: What fractions are the same as  $\frac{1}{4}$ ? By looking at the wall, they should be able to tell you that  $\frac{2}{8}$  and  $\frac{3}{12}$  are the same as  $\frac{1}{4}$ .



### Some fraction terms

- Numerator:** The numerator is the number in a fraction that is above the line, or the top number. Eg  $\frac{1}{2}$  (numerator)
- 2 (denominator)**
- The denominator is the bottom number of a fraction

**Improper fraction:** An improper fraction is a fraction in which the numerator is larger than the denominator. This means that the number represented by the fraction is actually more than 1 and can be reduced. Example:  $\frac{5}{4} = 1 \frac{1}{4}$

### Finding a fraction of an amount

To find a fraction of an amount we divide the number by the denominator and then multiply our answer by the numerator.

$\frac{3}{8}$  of 16     $\frac{1}{8}$  of 16 (divide 16 by 8) = 2

so  $\frac{3}{8}$  would be 3 x your answer(2) = 6

$\frac{3}{8}$  of 16 = 6

### Helpful Websites

<http://www.familymathstoolkit.org.uk/> (for families)

<http://nrich.maths.org/>

<http://www.mathplayground.com/index.html>

<http://www.coxhoe.durham.sch.uk/curriculum-links/numeracy>

[http://www.bbc.co.uk/bitesize/ks2/maths/number/fractions\\_basic/read/1/](http://www.bbc.co.uk/bitesize/ks2/maths/number/fractions_basic/read/1/)

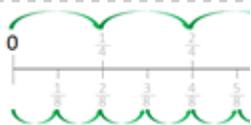
<https://www.coolmath4kids.com/math-help/fractions>

This is a screen shot of

[https://www.helpingwithmath.com/by\\_subject/fractions/fractions.htm](https://www.helpingwithmath.com/by_subject/fractions/fractions.htm)

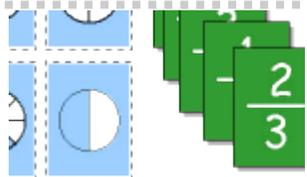
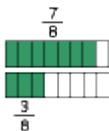


☑ The very important **concept of equivalent fractions** is discussed.



☑ The use of **number lines to show fractions** is explained along with the importance for students to be able to think of fractions as numbers.

☑ There is guidance on **how to compare fractions** including with, and without common denominators. Note: **This fraction bar** is handy when fractions are being compared.



☑ Fun with fractions can be found through **these fraction games**.

## Curriculum for Excellence Second level outcomes.

By the end of primary 5 we are expecting our pupils to be able to do many of the following:

### **Number**

- count on and back in tens from a given whole number
- identify the number before and after any given number in the range 0-1000
- solve a variety of addition and subtraction tasks using 3 digit numbers
- use a range mental strategies to solve problems
- recall many of the multiplication /division facts from memory
- use the associative property of addition to solve a problem by grouping numbers
- understand place value of decimal numbers
- I can read information from a range of tables, charts, diagrams, plots and graphs
  
- understand that a percentage is a fraction with a denominator of 10
- calculate with 25%, 50% and 100%
- find equivalent fractions using multiplication and division
- show where simple fractions and decimal fractions lie on a number line
- find the fraction of an amount by using pictures or informal jottings e.g.  $\frac{2}{3}$  of 15
- convert an improper fraction to a mixed number
- use equivalent fractions to compare the size of commonly used fractions and put them in order
- show the equivalence between fractions, decimal fractions and percentages using counters or a picture
  
- plan a journey given a limited number of times presented in 12 hour notation
- convert a number of seconds into minutes and seconds
- calculate the duration of a journey / event (within an hour)
- use a calendar to calculate the number of days between events within the month
- calculate time intervals from timetables in 12 hour notation
  
- use a timing device to time practical activities
- calculate the cost of an item or selection of items
- add and subtract monetary values with a decimal point
- understand the terms profit and loss
- plan purchases within a given budget