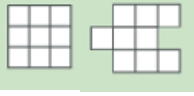


Y4 Maths

What they need to know...

The focus of this half term's home learning is **area**, followed by **fractions**.

Area: By the end of Year 4, the children will be able to find the area of rectilinear shapes by counting squares. They will know that the term 'area' refers to how much space a 2D shape or surface is taking up. They will be able to compare shapes and know that two shapes can have the same area even if they look different.



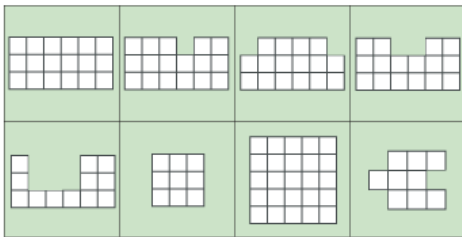
We will end this unit of work by investigating area using real-life applications, such as working out how much a window-frame shop owner should charge for windows based on how much glass and frame material they need to use.

Fractions: By the end of Year 4, children should be able to recognise and show, using diagrams, families of equivalent fractions. For example, $\frac{1}{3} = \frac{3}{9} = \frac{4}{12}$ and so on. They should also be able to solve fraction problems for both **unit** (e.g. $\frac{1}{5}$) and **non unit** (e.g. $\frac{3}{5}$) **fractions**. For instance, can you find $\frac{1}{3}$ or $\frac{2}{3}$ of 180ml? They should know the terms **numerator** (part) and **denominator** (whole), and be able to add and subtract fractions with the same denominator. In class, the children will also learn about decimals; they should be able to recognise and write decimal equivalents of any number of **tenths** and **hundredths**, such as $0.3 = \frac{3}{10}$ or $0.34 = \frac{34}{100}$. In addition to this, children should recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$ and $\frac{3}{4}$.

Activities & Games!

Area:

★ Have a look at these shapes:



What can you say about these shapes?
What is the area of each one?
What is the perimeter of each one?

Click [here](#) to take you to the Nrich website where you can print out a set of these shapes and cut them into separate cards. Complete the activities.

★★ As an extra challenge, have a go at answering these questions:

Can you draw a shape in which the area is numerically equal to its perimeter? And another?
Can you draw a shape in which the perimeter is numerically twice the area?
Can you draw a shape in which the area is numerically twice the perimeter?

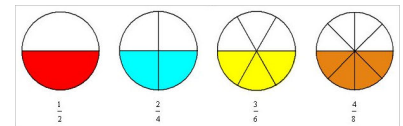
Note: Please ask your teacher if you would like squared paper in order to complete this maths activity.

Fractions:



★★ Choose one of the following fractions ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{3}{4}$, $\frac{2}{5}$, $\frac{2}{3}$, $\frac{4}{6}$, $\frac{2}{8}$) and then find a way to visually represent it. You could do this in lots of different ways: using a shape, by folding it and colouring it in; drawing a picture where, for instance, $\frac{2}{5}$ of the ducks in the pond are white; or you could show collections of objects and take a photo of them.

★ Can you represent some equivalent fractions for $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{3}$ and $\frac{5}{6}$?
What do you notice happens to the denominator and numerator? Can you find a rule for working out equivalent fractions?




★ Make a matching pairs game for decimals and their equivalent fractions. For example, if I create a card with the fraction $\frac{1}{2}$, then the matching card would be 0.5. Can you do the same for $\frac{1}{4}$ and $\frac{3}{4}$? Now try some other ones, such as $\frac{2}{10}$, $\frac{87}{100}$ or even $\frac{235}{1000}$. You could also try adding in some whole numbers, for example $5.25 = 5 \frac{1}{4}$. Make at least 8 matching pairs and then play with someone at home!

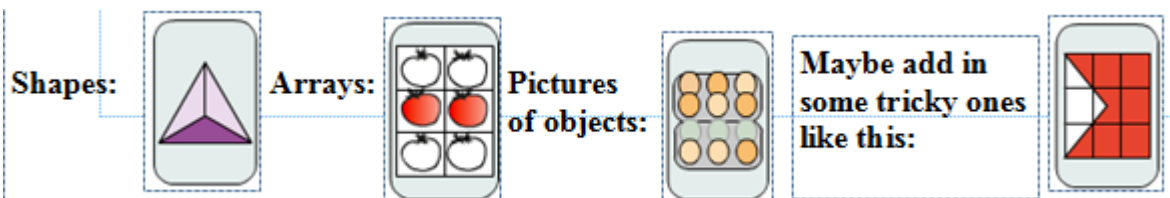
0.5

$\frac{1}{2}$

Going deeper...

Matching Fractions—with a difference!

Make a Matching Pairs Fraction game, but with a slight difference. The aim of the game is to turn over two cards which show equivalent fractions (fractions that equal the same amount). In it's simplest format, this might mean having the fraction $\frac{3}{4}$ on one card and $\frac{9}{12}$ on the other. However, as well as writing the fractions on your cards as digits, like this:  find other, more interesting ways of representing them. Consider using:



My Maths

Use our school log in (Username: **coleridge1**, Password: **success74**), and then your own login details to access activities related to our current topic on the MyMaths website. You can also have a look to see if there are some other fun games you would like to play. If you have misplaced your personal login, please see your class teacher to re-issue you one.

Wonderful websites

[Fraction Matching Game](#)

[A selection of Fraction Games](#)

Prepare for MTC



The Multiplication Tables Check (MTC) is a Key Stage 2 assessment to be taken by pupils at the end of Year 4 (in June). It will be an online test where the pupils are asked 25 questions on times tables (2 to 12). For every question, you have 6 seconds to answer, and in between the questions, there is a 3 second rest.

TTRockstars have a 'sound check' mode which replicates these test conditions. We are therefore recommending that all pupils spend some time using and practicing their tables on here.

Whilst it can be very tempting to encourage your child to have a go at the more challenging activities, it is far better to work with them at a level they feel confident with. Significant and regular practise of even the most basic skills outlined in this document will lead to a much deeper understanding and greater proficiency, and ultimately a much more pleasant 'homework' experience for you and your child.