Y6 Maths What they need to know...

In Year 6, children must develop their understanding of **percentages**. The children should already understand that a percentage relates to the number of parts per 100 and they would have previously had experience finding 50%, 25%, 75% and multiples of 10% of different numbers, using their knowledge of fractions to help them (e.g. 25% is the same as 1/4). They will now be expected to calculate other percentages of amounts (e.g. 15%, 33%, 96% and so on) by using their known facts. For example, to calculate 36%, they would first work out 10% (by dividing the number by 10), and use this to calculate 30% (by multiplying it by 3) and 5% (by halving it). They would finally find 1% (by dividing the amount by 100) before combining these three amounts together. Children will use these strategies to solve a variety of problems involving percentages.

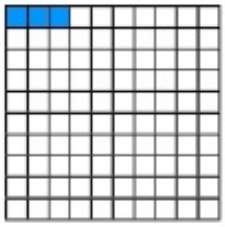
Activities & Games:

★ **Would You Rather?** Would you rather..... have 10% of £5 or 75% of 80p? Be given 60% of 2 pizzas or 26% of 5 pizzas? Be bitten by 15% of 120 mosquitoes or 8% of 250 mosquitoes? Try answering these questions and then come up with some of your own to challenge people at home. Have a go at including some where the different percentages of the two amounts equal the same, such as 25% of £200 or 50% of £100? Begin with simple calculations and get progressively more complicated.

★★ **Percentage Mad!** What is 20% of 30% of 40% of £50?
What is 10% of 25% of 60% of £120?
What is 5% of 12% of 50% of 300?
What is 9% of 20% of 35% of 400?

★★★ **Maths Exam** A maths exam contained only two questions. Problem 1 was solved by 70% of the pupils. Problem 2 was solved by 60% of them. Every pupil solved at least one of the problems. Nine pupils solved both problems. How many pupils took the exam?
In the following year, the maths exam contained two percentage problems. This time each problem was solved by 72% of the pupils and every pupil got at least one problem right again. What can you say about the number of pupils in the class?

★ **100 Square** Create, and print off, lots of mini 100 squares like this. What fractions, percentages and decimals can you represent with them?



★★ **Word Problems** Have a go at solving these:

In Year 1, there are 50 pupils, of whom 16 are boys. What percentage of the pupils are girls?

In a class of children 25% are boys and the rest are girls. There are 18 girls. How many children are in the class?

25% of P = Q
1/5 of Q = R
10% of R = 7
Calculate P, Q and R

Going deeper...

THE ELECTION QUESTION

On Math-land TV, a political commentator summed up an election result as follows:

> A Labour majority of 1729 last time has been turned into a Conservative majority of 1654 in this election and the conservative candidate has obtained 38% of the poll. Labour has taken second place. The Liberal Democrat has obtained only 14% of the poll and has been beaten into fourth place by the SNP candidate who has 50 more votes than the Liberal Democrat.

Given that there were just four candidates and that the figures quoted were exact, find the number of votes polled for each candidate.

Wonderful websites

My Maths

Use our school login (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.

Matching Cards

Dartboard

Percentage spider

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!