Maths Challenges Summer Term 2019-2020

Week 8

Focus	Challenge 1	Challenge 2	Challenge 3
Fractions **To develop confidence identifying fractions and investigating equivalence**	• Investigate terms wholes, halves and quarters by folding paper shapes • First match, then find on request, then independently name key fractions • Cut fruit or slices of bread into halves or quarters and match the pieces to a written fraction • Find a half and a quarter of given quantities using a range of household items, eg put equal numbers of items on 2 or 4 plates or cushions • Practise counting in halves, eg one, one and a half, two…. • Recap on how to use a calculator to find half or quarter of an even total by dividing by 2 or 4. • Cut a slice of bread into 4 strips and make an 'edible fraction wall'-lie a whole strip on a plate, then cut the next strip into 2 and place underneath, the next into 3 and the final piece into 4. Identify halves, thirds and quarters. How many of each fraction are needed to make a whole? We call this 'equivalence' • **E**xplore equivalent terms using simple decimals and percentages, eg ½=0.5=50% (use terms 'equals', 'is equivalent to' or 'is the same as)	• Cut fruit or slices of bread into different fractions and write down, eg 6 pieces is equivalent to 6 sixths (a whole or 1) and one piece is 1 sixth • **E**xplore equivalent fractions, decimals and percentages-, eg 1/4=0.25=25% • Add 2 fractions together using practical resources, eg using a 6 piece chocolate bar….what is one sixth plus 2 sixths? • Make edible 'mixed numbers' (wholes plus a fraction), eg 2 whole slices of toast, plus a quarter is written as 2¼ • Find a till receipt and work out what the total would be if all items were reduced by a half (ie '50% off') by using a calculator to divide by 2 • Practise counting forward and back in quarters, eg one, one and a quarter, one and a half…. • Throw 2 dice and write down the 2 digit number made. Find out what a quarter of this number is using a calculator to divide by 4 • Make up some word problems (eg If my cousin is 30 years old, what is one quarter of her age?)	• Explore equivalent fractions, decimals and percentages using practical resources (eg by cutting up fruit, slices of bread or bread sticks) • Add fractions together practically to form a mixed number and record as a fraction, decimal and percentage eg 2 whole slices of toast, plus a quarter is written as 2¼=2.25=225% • Explore edible 'improper fractions' and convert to 'mixed numbers', eg 13 quarters of toast=3¼ • Put a mixed set of fractions, decimals and percentages in order of size-you first need to convert them all to the same form eg 1.5, 50% and 1¼ put in order of size= a half (50%), a whole and a quarter (1¼) and a whole and a half (1.5) • Find a till receipt and work out what the total would be if all items were reduced by a quarter (ie '25% off'), by first dividing the total by 4 to find a quarter and then subtracting a quarter from the total • Work out a '10% off' discount, by first dividing the total by 10 to find a tenth and then subtracting a tenth from the total …..when you have mastered this extend to 20% off (2x10% reduction), 30% off (3x10% reduction), and then 15% off (by calculating 10%, then adding half of this amount) • Make up some word problems (eg If my sister is a fifth the age of my 60 year old neighbour, how old is she?)