## Whitehill Junior School - Mathematics Curriculum Map 2021-2022

## Fractions/Decimals/Percentages

Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing one-digit numbers or quantities by 10.

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.

Add and subtract fractions with the same denominator within one whole. (5/7 + 1/7 = 6/7)

Solve problems that involve all of the above. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions

Recognise and show, using diagrams, equivalent fractions with small denominators.

Compare and order unit fractions, and fractions with the same

Year Four

Recognise and show, using diagrams, families of common equivalent fractions.

with small denominators.

denominator.

Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.

Compare numbers with

decimal places up to two

decimal places.

Find the effect of dividing a

one- or two-digit number by

10 and 100, identifying the

value of the digits in the

answer as ones, tenths and

hundredths.

Recognise and write decimal

equivalents of any number of

tenths or hiundredths.

the same number of

Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths

Compare and order fractions whose denominators

are all multiples of the same number.

Solve simple measure and money problems involving fractions and decimals to

two decimal places.

Year

**Five** 

Round decimals with one decimal place to the nearest whole number.

Recognise and write decimal equivalents to 1/4; 1/2; 3/4.

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

Add and subtract fractions with the same denominator.

Add and subtract fractions with the same denominator and multiples of the same number.

Read and write decimal numbers as fractions.

Solve problems involving number up to three decimal places.

Round decimals with two decimal places to the nearest whole number and to one decimal place.

Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.

Year

Six

Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.

Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.

Read, write, order and compare numbers up to three decimal places.

Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100, and as a decimal.

denomination.

Solve problems which require answers to be rounded to specified degrees of accuracy.

Multiply one-digit numbers with up to two decimal places by whole numbers.

Divide proper fractions by whole numbers (for example,  $1/3 \div 2 = 1/6$ ).

Use common factors to simplify Compare and order fractions; use common multiples fractions, including to express fractions in the same fractions >1.

KS3

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 10000 giving answers up to three decimal places.

Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.