Subject: Maths

Theme: Overview

Oakgrove School - Curriculum Matrix

Year 3

Place Value 1
- Count in hundreds to 1000;
- Represent numbers to 1000 on a place value grid, with place value cards and counters;
- Understand that a three-digit number is made of 100s, 10s and 1s;
- Place a three-digit number on a number line marked in 100s and 50s;
- Find 1, 10 or 100 more or less than a number

Place Value 2
- Manipulate the place value of three-digit numbers to support subtraction; e.g. 493 = 400 + 80 + 1;
- To find missing digits, add and subtract using place value; e.g. 723 = 700 +? + 3; 814 + 70 =?

Addition and Subtraction 1
- Add and subtract multiples of 100; e.g. 300 + 500 = 800;
- Add and subtract hundreds from a three-digit number;
- Spot patterns within addition and subtraction; e.g. that 300+400 =700 since 3+4=7; that if 16-9=7; 26-9=17;
- Solve addition and subtraction word problems within 100;
- Use bar models to represent problems

Addition and Subtraction 2
- Add or subtract 1s from a three-digit number;
- Subtract 1s from a three-digit number crossing over a 10s boundary;
- Add and subtract 10s from a three-digit number;
- Subtract 10s from a three-digit number crossing over a 100s boundary

Shape 1
- Identify turns and angles;
- Identify right angles in shapes;
- Count right angles as quarter turns;
- Identify acute and obtuse angles

Multiplication and Division 1
- Count in 5s and 50s;
- Show counting in 50 on a number line and relate counting in 50s to counting in 5s;
- Solve correspondence problems where n objects is related to n objects; e.g. I have three scarves and two hats, what different combinations can I wear?

Addition and Subtraction 3
- Add two- and three-digit numbers without carrying
- Add two three-digit numbers without carrying
- Add two- and three-digit numbers with carrying
- Add two three-digit numbers with carrying

Addition and Subtraction 4
- Subtract a two-digit number from a three-digit number without exchange;
- Subtract a three-digit number from a three-digit number without exchange;
- Subtract a two-digit number from a three-digit number with exchange;
- Subtract a three-digit number from a three-digit number with exchange

Multiplication and Division 2
- Multiply by 3
- Divide by 3

Multiplication and Division 3
- Multiply two-digit numbers by one-digit numbers (2, 3, 5);
- Use arrays to show two digits by one-digit multiplication;
- Multiply two-digit numbers by one-digit numbers with carrying

Multiplication and Division 4
- Divide two-digit numbers by one-digit numbers
- Divide two-digit numbers by one-digit numbers with carrying;
- Use place value counters to show two digits by one-digit division

Measures 1
- Measure mass in g and kg
- Compare mass
- Add and subtract masses including answering word problems using bar models to support thinking

Place Value 3
- Compare objects to 1000;
- Compare numbers to 1000
- To be able to order numbers to 1000;
- Solve place value problems

Addition and Subtraction 5
- Estimate answers to calculations;
- Know that addition is the inverse of subtraction and make related addition and subtraction fact families;
- Recognise the basic bar model for addition and subtraction;
- Solve missing number problems;
- Check answers to calculations

Multiplication and Division 5
- Multiply by 4; Divide by 4
- Relate the 4x table to the 2x table as doubling
- Use the 4x table to multiply and divide

Fractions 1
- Represent, by colouring, drawing and writing unit and non-unit fractions;
- Compare and order fractions with the same denominator;
- Combine fractions to make a whole;
- Relate the image for a fraction to a bar model for division

Fractions 2
- Identify and represent tenths; e.g. know that 10 tenths make a whole, and relate this to 10 ones making 10 and 10 tens making 100;
- Colour tenths on a fraction bar and place tenths on a number line from 0-1;
- Count in tenths; Know the term 'decimal point';
- Identify and represent tenths as decimals; e.g. know that 3 ones and 5 tenths can be written as 3.5

Shape 2
- Draw lines to the nearest cm and mm;
- Identify vertical and horizontal lines;
- Identify parallel and perpendicular lines (shape names);
- Connect decimals to drawing and measuring in cm and mm; e.g. describe a line as 3.4cm long

Multiplication and Division 6
- Divide two-digit numbers by one-digit numbers with carrying and remainders;
- Know that multiplication is the inverse of division and create related calculation fact families;
- Recognise the basic bar model for multiplication and division;
- Find missing numbers in multiplication and division calculations

Multiplication and Division 7
- Multiply by 8;
- Divide by 8;
- Relate the 8x table to the 2x and 4x table as doubling;
- Use the 8x table to multiply and divide

Fractions 3
- Represent fractions greater than one on a number line;
- Relate fractions to division e.g. to start with using a similar bar model

Measures 2
- Measure length in metres, using metre rulers, tape measures and trundle wheels;
- Identify equivalent lengths using cm and mm and also cm and m;
- Compare lengths;
- Add lengths;
- Subtract lengths;
- Solve positive integer scaling problems, using a map where 1cm = 100m;

Measures 3
- Explore facts about months and years; e.g. know how many days in each month, year and leap year;
- Explore facts about hours and days;
- Tell the time to the nearest 5 minutes on an analogue and digital 12-hour clock;
- To be able to use am and pm

Shape 3
- Identify, describe and draw 2d shapes;
- Make 3d shapes;
- Recognise symmetry in polygons and polyhedra

Addition and Subtraction 6
- Solve word problems involving addition and subtraction;
- Solve number problems involving addition and subtraction; e.g. adding and subtracting consecutive numbers within 100

Multiplication and Division 8
- Solve multiplication and division word problems in context

Measures 4
(always with £ and p separate)
- Identify notes and coins;
- Convert between pounds and pence;
- Add amounts of money together;
- Subtract money;
- Give change

Fractions 4
- Find a unit fraction of an amount;
- Find a non-unit fraction of an amount (within known tables)

Measures 5
- To be able to tell the time to the nearest minute on an analogue and digital 12hr and 24hr clock;
- To be able to use the 24-hour clock

Calculation Problems
- Represent problems in bar models;
- Recognise common bar models for addition, subtraction, multiplication and division;
- Use bar models to determine what a word problem is asking and to make the correct choice of calculation

Multiplication and Division 9
- Rapidly recall the 2, 3, 4, 5, 8 and 10 x tables

Measures 6
- Measure perimeter; Calculate perimeter

Measures 7
- Calculate the duration of events;
- Compare the duration of events;
- Calculate start and end times
- Recognise the Roman numerals on a clock face
- Measure time in seconds

Fractions 5
- Recognise and show equivalent fractions;
- Add and subtract fractions with the same denominator by counting;
- Add and subtract fractions with the same denominator using known facts

Measures 8
- Measure capacity in l and ml;
- Compare capacity;
- Add and subtract capacity

Addition and Subtraction 7
- Add and subtract two-digit numbers mentally within 100;
- Add two-digit numbers mentally where the answer is greater than 100

STATISTICS:

Read and interpret pictograms – Science Autumn 1 (Magnets)

Read and interpret bar charts – Science Autumn 1 (Magnets)

Read and interpret scaled bar charts (in 2s, 5s and 10s) – Science Summer 1 (Sound)

Read and interpret tables – Science Summer 1 (Sound)