**Hillside Maths Key Learning Overview**

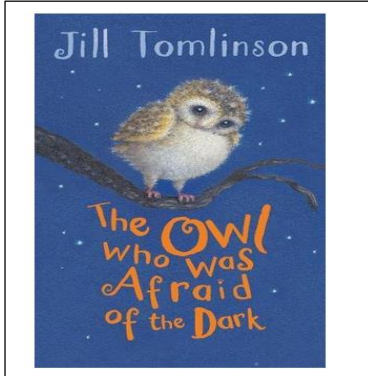**Year 2**

**Y2 Autumn Term**

**Text – Troll Swap by Leigh Hodgkinson**

| | Opportunities to link text: |
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**Text – The Owl Who Was Afraid Of The Dark by Jill Tomlinson**

| | Opportunities to link text: |
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**Number: Place Value**

Read and write numbers to at least 100 in numerals and in words.

Recognise the place value of each digit in a two-digit number (tens, ones).

Identify, represent and estimate numbers using different representations including the number line.

Compare and order numbers from 0 up to 100; use <,> and = signs.

Use place value and number facts to solve problems.

Count in steps of 2, 3 and 5 from 0 and in tens from any number, forwards and backwards.

**Number: Addition and Subtraction**

Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.

Add and subtract numbers using concrete objects, pictorial representations and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.

Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.

Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods.

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

### Measurement: Money

Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.

Find different combinations of coins that equal the same amounts of money.

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

### Number: Multiplication and Division

Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers.
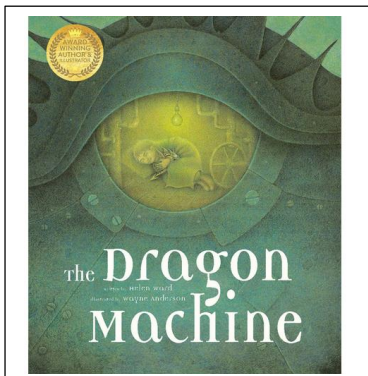
Calculate mathematical statements for multiplication and division within the multiplication table and write them using the multiplication (x), division (÷) and equals (=) sign.

Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts.

Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.


### Y2 Spring Term
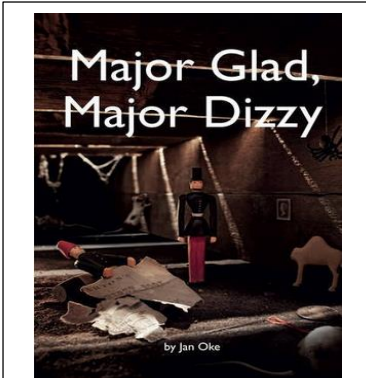
### Text - The Dragon Machine by Helen Ward



Opportunities to link text:

### Text - The Great Fire of London by Emma Adams



Opportunities to link text:

**Text – Major Glad, Major Dizzy by Jan Oke**

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| | Opportunities to link text: |

## Number: Multiplication and Division

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Calculate mathematical statements for multiplication and division within the multiplication table and write them using the multiplication (x), division (÷) and equals (=) sign.

Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts.

Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.

## Statistics

Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.

Ask and answer simple questions counting the number of objects in each category and sorting the categories by quantity.

Ask and answer questions about totalling and comparing categorical data.

## Geometry: Properties of Shape

Identify and describe the properties of 2D shapes, including the number of sides and lines of symmetry in a vertical line.

Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.

Identify 2D shapes on the surface of 3D shapes (for example, a circle on a cylinder and a triangle on a pyramid).

Compare and sort common 2D and 3D shapes and everyday objects.

## Number: Fractions

Recognise, find, name and write fractions $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.

Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
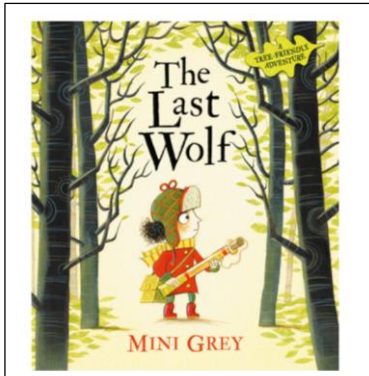
## Measurement: Length and Height

Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°c); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.

Compare and order lengths, mass, volume/ capacity and record the results using >, < and =.

## Y2 Summer Term

### Text – The Last Wolf by Mini Grey



| Opportunities to link text: |
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### Text – Grandad's Secret Giant by David Litchfield



| Opportunities to link text: |
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## Geometry: Position and Direction

Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

Order and arrange combinations of mathematical objects in patterns and sequences.

## Problem Solving and Efficient Methods

Use place value and number facts to solve problems.

Solve problems using addition and subtraction.

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.

**Measurement: Time**

Tell and write the time to five minute, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day.

Compare and sequence intervals of time.

**Measurement: Mass, Capacity and Temperature**

Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°c); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.

Compare and order lengths, mass, volume/ capacity and record the results using >, < and =.

**Investigations**

To develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources.