# Sixth Form Mathematics Long Term Plan – revised for November 2022

| | Autumn | | Spring | | Summer | |
|---|---|---|---|---|---|---|
| Core number work | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts |
| Yr 1 Primary focus skill development in addition to number | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial<br>Geometry- position & direction | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial<br>Geometry- position & direction | Measurement- time<br>Measurement- value<br>Statistics/seeing the costs | Measurement- time<br>Geometry- position & direction<br>Measurement- value<br>Statistics/timetables |
| Year 1 Application Themes | Value in the Home<br>Personal finance – saving money at home | Shape, measurement and pattern in the home | Value in the community - shopping | Shape measurement and pattern at work: catering | Value, time and measurement at work: catering | Time, direction & Travel<br>Events & travelling to them |
| Core number work | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts |
| Yr 2 Primary focus skill development in addition to number | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial | Measurement- time<br>Measurement- value<br>Statistics/seeing | Measurement- time<br>Geometry- position & direction<br>Measurement- value |

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|---|---|---|---|---|---|---|
| | | Geometry- position & direction | | Geometry- position & direction | the costs | Statistics/timetables |
| Yr 2 Application Themes | Value in the home; food- | Shape, measurement and pattern in the community /social world | Value in the community- in the news/ wider society | Shape measurement and pattern at work: horticulture | Value, time and measurement at work: horticulture | Time, direction & Travel<br>Events & travelling to them |
| Core number work | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts | Number system<br>Number Sets +-<br>Number x/<br>Number parts |
| Yr 3 Primary focus skill development in addition to number | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial<br>Geometry- position & direction | Measurement- value<br>Statistics/seeing the costs | Geometry- properties of shapes<br>Measurement – spatial<br>Geometry- position & direction | Measurement- time<br>Measurement- value<br>Statistics/seeing the costs | Measurement- time<br>Geometry- position & direction<br>Measurement- value<br>Statistics/timetables |
| Year 3 Application Themes | Value in the home: Clothing | Shape, measurement and pattern in the creative world | Value in the community- planning a social event | Shape measurement and pattern at work: manufacture | Value, time and measurement at work: manufacture | Time, direction & Travel<br>Events & travelling to them |

# Year 1 National Curriculum* – with developmental core skills

## Mathematics

**Number system – number and place value**

**Number rhymes, anticipation and sequences**

**1:1 correspondence**

**Cardinal number**

**A lot /few**

**More / less**

**Number Steps (+/- 1)**

**Ordinal numbers – first, second, last**

 count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number

 count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens

 given a number, identify one more and one less

 identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least

 read and write numbers from 1 to 20 in numerals and words.

**Number sets – addition and subtraction**

**Creation of sets – Sorting, subsets (eg fruit= apples and oranges / boys & girls = children)**

**Conservation of set – pairs, twoness of two etc, numicon,**

**Sequences – cause and effect - before and after change**

**Number bonds to 5 and then 10**

 read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs

 represent and use number bonds and related subtraction facts within 20

 add and subtract one-digit and two-digit numbers to 20, including zero

 solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.

**Number x/ – multiplication and division**

**Aggregating repeated groups of the same number (eg two eyes per face, 2 wheels per bike….)**

**Repeated patterns**

**Sharing**

 solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

**Number parts – fractions**

**Parts of the whole**

**Sharing**

 recognise, find and name a half as one of two equal parts of an object, shape or quantity

 recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.

**Measurement – spatial**

**Opposites and quantitative comparatives - Big/little, Large/small**

**Objects in combination & in space (stacking, nesting/fitting, building, rolling)**

**Ordination by size, weight, capacity, time (& volume, brightness, roughness, smelliness)**

**Sequencing by cause and effect of one object to another**

 compare, describe and solve practical problems for:

- lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]
- mass/weight [for example, heavy/light, heavier than, lighter than]
- capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]

 measure and begin to record the following:

- lengths and heights
- mass/weight
- capacity and volume

**Measurement – time**

**Opposites and quantitative comparatives – long / short time, quicker, longer**

**Ordination by, time**

**Sequencing by cause and effect**

**Sequencing by time in the day**

**Days, dates and longer time periods- week, month, season, year**

**Timetables**

 compare, describe and solve practical problems for:

- time [for example, quicker, slower, earlier, later]

 measure and begin to record the following:

- time (hours, minutes, seconds)

 sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]

 recognise and use language relating to dates, including days of the week, weeks, months and years

 tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

**Measurement – value**

**Opposites and quantitative comparatives – valuable, worthless**

**Ordination by big/little value**

**Exchange and value (eg looking after things, exchanging, saving (similar to reward chart), 'big money' = pounds, 'little money' = pennies)**

**Taking care of things – not losing, not breaking**

**Property & ownership – need for consent to use other people's property**

**Saving & delayed gratification**

 recognise and know the value of different denominations of coins and notes

**Geometry – properties of shapes**

**objects in combination & in space (stacking, nesting/fitting, building, rolling) – prepositions**

**vocab of shape – side, straight, curve, point, corner, angle, height/high, width/wide/narrow, thin, deep,**

- recognise and name common 2-D and 3-D shapes, including:
- 2-D shapes [for example, rectangles (including squares), circles and triangles]
- 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
- *describe position,*

**Geometry – position and direction**

**direction and movement, including whole, half, quarter (sideways)**

**Forward/back, Left/right, up/down**

**Prepositions**

**Repeating patterns**

- direction and movement, including whole, half, quarter and threequarter turns.

**Cultural Capital**

Data & **Statistics**

**Sorting**

**Counting: Number order, anticipation and sequences, 1:1 correspondence, Cardinal number**

**Scoring and tallying (physical stacking tally)**

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data.

*Pupils working above Year 1 expectations **must** have targets appropriate to their National Curriculum year group level