

**Year 5 Summer maths**

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| Prior Learning  |
| **Learning in year 4** **Shape:** Understanding angles as turns. Identifying angles, comparing & ordering angles. Recognising different triangles. Features of quadrilaterals.Regular & irregular polygons.Lines of symmetry.**Position&Shape:** Describing positon using co-ordinates, plotting co-ordinates. Draw 2d shapes on a grid. Translate shapes on a grid. **Decimals:** Make a whole with tenths then with hundredths. Partition decimals.Compare & order decimals. Measurement Converting Units: Measure in kilometres and metres. Equivalent lengths (kilometres and metres) |
| Key vocabulary for this unit |
| **Geometry:Shape** full/half/quarter/three-quarter turnclockwise/ anticlockwise right angle straight line angleacute/obtuse/reflexdegreesestimate/approximateprotractor millimeters, centimeters,sum of the anglesfaces,edges,vertices,vertexpolygon regular/ irregular prism /pyramid | **Geometry: Position & Direction** coordinate gridaxes x-coordinate / y-coordinate horizontal/vertical lines translateleft/right/up/downsymmetrical /line of symmetryvertical/horizontal/diagonalreflectionvertex/ vertices  |  **Decimals**compare convert partition tenths & hundredths, thousandthsequivalentsdecimal placesexchangeincreasing/decreasing in valuesequence | **Negative Numbers**positive /negative numberscount forwards/ backwardssequencecomparedifference between two numbers | **Measurement Converting Units**measure kilometres/metrescentimetre/ metre / millimetre gram/ kilogramlitre/ millilitreconversionsapproximately equal to | **Volume**square centimetre/ cubic centimetreshape/cuboidestimateapproximatelycapacity |
| Learning Sequence. |
| **Geometry: Shape** | Understand and use degreesClassify anglesEstimate anglesMeasure angles up to 180°Draw lines and angles accuratelyCalculate angles around a pointCalculate angles on a straight lineLengths and angles in shapesRegular and irregular polygons3-D shapes |
| **Geometry: Position & Shape**  | Read and plot coordinatesProblem solving with coordinatesTranslationTranslation with coordinatesLines of symmetryReflection in horizontal and vertical lines |
| **Number: Decimals** | Use known facts to add and subtract decimals within 1Complements to 1Add and subtract decimals across 1Add decimals with the same number of decimal placesSubtract decimals with the same number of decimal placesAdd decimals with different numbers of decimal placesSubtract decimals with different numbers of decimal placesstrategies for adding and subtracting decimalsDecimal sequencesMultiply by 10, 100 and 1,000 |
| **Negative Numbers**  | Understand negative numbersCount through zero in 1sCount through zero in multiplesCompare and order negative numbersFind the difference |
| **Measurement:****Converting Units** | Kilograms and kilometresMillimetres and millilitresConvert units of lengthConvert between metric and imperial unitsConvert units of timeCalculate with timetables |
| **Measuring: Volume** | Cubic centimetresCompare volumeEstimate volumeEstimate capacity |
| Assessment milestones |
| **Mathematical skills:** **Geometry: Shape*** Estimate and compare acute, obtuse and reflex angles.
* Use the properties of rectangles to deduce related facts and find missing lengths and angles
* Identify 3-D shapes, including cubes and other cuboids, from 2-D representations

**Geometry: Position & Shape*** Plot specified points and draw sides to complete a given polygon

**Number: Decimals*** Add and subtract decimal numbers
* Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place
* Read, write, order and compare numbers with up to 3 decimal places
* Solve problems involving number up to 3 decimal places

**Negative Numbers**Compare and order negative numbers**Measurement:Converting Units*** Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre.

**Measuring: Volume*** To estimate volume and capacity
 | **Mathematical knowledge:****Geometry: Shape*** Know angles are measured in degrees.
* Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

**Geometry: Position & Shape*** To identify, describe and represent the position of a shape following a reflection or translation,

**Number: Decimals**Use strategies for adding and subtracting decimals**Negative Numbers*** Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0

**Measurement:Converting Units*** Apply knowledge and understanding to approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
* Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation.
* Solve problems involving converting between units of time
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