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|  | **Mathematics Long Term Mapping** **KEY STAGE THREE** |  |
|  | **WEEKLY CURRICULUM COVERAGE** |
| **Week 1** | **Week 2** | **Week 3** | **Week 4** | **Week 5** | **Week 6** |
| **Autumn**  | **1** | NUMBER*Place Value* | NUMBER*Addition* |
| **2** | NUMBER*Subtraction* | NUMBER*Multiplication* |
| **Spring** | **1** | NUMBER*Division* | MEASUREMENT*Money* | STATISTICS |
| **2** | MEASUREMENT*Length & Perimeter* | NUMBER*Fractions* |
| **Summer**  | **1** | *NUMBER**Fractions* | *MEASUREMENT**Time* |
| **2** | *GEOMETRY**Properties of Shapes* | MEASUREMENT*Mass & Capacity* |
| **Introduction Song** | Everybody Get Up! (The 1-20 edition) counting 1 to 20: <https://www.youtube.com/watch?v=BWGy2aPm5g4>  |
| **OoR** | Squishy Dice |
| **Guidance** | *The suggested activities in this mapping should be adapted to meet the needs of each cohort. The word in* ***bold*** *is the skill which should be focussed on.* |

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| **Key Stage 3 Mapping****AUTUMN 1 MEDIUM-TERM PLANNING** |
| ***Aspiration for Life*** | Differentiated, aspirational targets dependent on pupil needs. | ***Language for Life*** | Explicit teaching/ exposure to new and know vocabulary. | ***Learning for Life*** | Opportunities to develop cross curricular skills e.g. drama |
| **MATHEMATICS** | At Tor View School, we aim to instil in our students a fundamental understanding of how Mathematics links to the wider world. Mathematics equips students with a uniquely powerful set of tools to understand and change the world in which they live. Learning basic principles of maths is essential to functioning independently within the world. In everyday life we are faced with numbers, from getting the right bus, counting money in a shop to employment. Students understand and make connections in different areas of maths so they can apply skills to solve problems in a range of contexts. | **NUMBER** |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Place Value** | **Addition** |
| **Partitioning**1s, 10s and 100s | **Order** numbers up to 1000, including numerals and words. | **Compare** numbers to 1000 including numerals and words. | **Adding** 1/2/3 digit numbers not crossing tens or hundreds. | **Adding** 1/2/3 digit numbers including crossing ten and hundreds. | **Solving** problems, including using number facts, missing number problems and place value. |
| **ORAL/MENTAL STARTERS*****(Topic from the previous week is repeated1)*** |
| Partition these numbers… Which number have I partitioned? | Partition these numbers… Which number have I partitioned? | Order these numbers/weights etc.Line up in order of… | Which scale has the most/least?Who is the oldest/tallest etc.? | Find your number bond partner.Number Jenga | Find your number bond partner.Addition catch |
| **VOCABULARY** |
| PartitionOnes, tens, hundredsPlace valueValue | CountingOrderSame as/equalGreater thanLess than | Bigger thanSmaller thanSame as/equalComparingGreater thanLess than | AdditionSum ofDigitsHundreds, tens and onesAll together | AdditionSum ofDigitsHundreds, tens and onesAll together | Number factsAdditionPlace valueSolveNumber factsNumber bonds |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| 300 + 10 + 3 = 313Dienes/base tenPlace value grids□ = 100, / = 10, • = 1 | Number linesClothes lines numbersNumber cubesDots underneath numbers | Comparative weighing scalesDienesNumber linesCounters | CountersCubesDots under numbers | AbacusBase tenNumiconsCounting songs | NumiconsCubesCountersBase ten/ dienes |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| How many different ways can the number X be partitioned?Write this number in numerals, 2 tens and 4 ones.Which number is represented by…? | Put these shopping items into the cheapest to the most expensive.Order everyone’s birthday.Ordering the heaviest to lightest objects. | Who has the most money?Which item is the cheapest?I have ten muffins; which container should I use?Which cake needs the most flour? | Count the cups of flour you need to bake a cake.Adding pennies.Laying a table | Counting how many of X you need at a supermarket.Adding bigger denominations of money.Group one has ten people, and group two has 45 people, how many people in total? | If I have ten apples and my friends take three, how many do I left?3+?=10, find the missing number.I have 4 pears; my friend has ten more than me. How many pears does my friend have? |
| **INTENT** |

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| **Key Stage 3 Mapping****AUTUMN 2 MEDIUM-TERM PLANNING** |
| ***Aspiration for Life*** | Differentiated, aspirational targets dependent on pupil needs. | ***Language for Life*** | Explicit teaching/ exposure to new and know vocabulary. | ***Learning for Life*** | Opportunities to develop cross curricular skills e.g. drama |
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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Subtraction** | **Multiplication** |
| **Subtracting** 1/2/3 digit numbers, not crossing tens or hundreds. | **Subtracting** 1/2/3 digit numbers including crossing ten and hundreds. | **Solving** problems, including using number facts, missing number problems, place value and inverse relationships. | **Multiplying** by 50 and 100 starting at 0. | **Multiplying** by 3,4 and 8 starting at 0. | **Solving** problems, including using multiplication statements and missing numbers. |
| **ORAL/MENTAL STARTERS*****(Topic from the previous week is repeated1)*** |
| Subtraction diceMissing number gamesNumber Jenga | Subtraction catchFind your partnerFlash cards | Backwards snakes and laddersSubtraction flash cards | Find the missing numberWhat number am I thinking of… | What is 50 times x.Chanting the multiplication table | Draw the array of…Multiplication rock, paper scissors. |
| **VOCABULARY** |
| Less thanTake awaySubtractMinusDifference between | Less thanTake awaySubtractMinusDifference between | Number factsSubtractSolveNumber factsNumber bonds | MultiplyTimesGroup of | MultiplyTimesGroup of | MultiplyTimesGroup ofNumber statementsSolve |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| CubesCountersDienes/base tenDots under numbersComprehensive weighing scalesBricks | CubesCountersDienes/base tenDots under numbersComprehensive weighting scalesSensory blocks | NumiconsCubesCountersBase ten/ dienesCounters | Number songs50+50+50=150Place valueWaldolf multiplication flowersArrays | Number songs3+3+3= 9Place valueWaldolf multiplication flowersArrays | Number songs3+3+3= 9Place valueWaldolf multiplication flowersArrays |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| Taking away pennies to get changeIf you give away X amount of sweets, how many do you have left?I had 9p, I bought something for 7p, how much money do I have left? | Calculating billsIf you give away X amount of sweets, how many do you have left?How much flour do you have left?I had 100 people at my party, 54 have gone home, how many people are left? | Find the inverse of X.How many items can you buy from the shop with £X?Finding the missing number.Number triangle.You have £x amount of money, what kind of holiday can you book? | Find the missing number.How many seats will I need for 4 groups of 50 people?Four friends have £1 each, how many pennies do they have? | Three pencils cost 4 pence each, how much will all the pencils costs?I have three groups of 50 students, how many children all together?Find the missing number.My model is 1cm tall, I need it to be 5 times taller, how tall will it be? | Multiplication triangles.What number do I need to multiply to x to get y?What two numbers make x?I have four boxes of 100 pencils, how many pencils do I have in total? |
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| **Key Stage 3 Mapping****SPRING 1 MEDIUM-TERM PLANNING** |
| ***Aspiration for Life*** | Differentiated, aspirational targets dependent on pupil needs. | ***Language for Life*** | Explicit teaching/ exposure to new and know vocabulary. | ***Learning for Life*** | Opportunities to develop cross curricular skills e.g. drama |
| **MATHEMATICS** | At Tor View School, we aim to instil in our students a fundamental understanding of how Mathematics links to the wider world. Mathematics equips students with a uniquely powerful set of tools to understand and change the world in which they live. Learning basic principles of maths is essential to functioning independently within the world. In everyday life we are faced with numbers, from getting the right bus, counting money in a shop to employment. Students understand and make connections in different areas of maths so they can apply skills to solve problems in a range of contexts. | **NUMBER** | **MEASUREMENT** | **STATISTICS** |
| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Division** | **Money** | **Statistics** |
| **Dividing** 2-digit numbers by a 1-digit number. Using known multiplication tables. | **Solving** problems, including using division statements, missing numbers and inverse relationships. | **Converting** money. | **Adding and subtracting** money including giving change. | **Interpret** data, using bar charts, pictograms and tables. |
| **ORAL/MENTAL STARTERS*****(Topic from the previous week is repeated1)*** |
| Division statements for all learnt multiplication tables. | Division bingo. | If I am 150cm, how tall would I be if I was a fifth of my height? | What is 450p in pounds? | How many items can I buy with ten pounds? |
| **VOCABULARY** |
| Division/divideHow many times…Goes into…Equal | DivisionHow many times…Goes into… | All denominations of currency (£ and p).ConvertingValue | All denominations of currency (£ and p).ValueChange | InterpretDataPictograms/charts/tablesAxis |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| Division songsWaldolf division flowersSharing objectsBooks such as: Divide and ride or bean thirteenCovering LEGO studs.Counters/bricks | Waldolf division flowersSharing objectsBooks such as: Divide and ride or bean thirteenCovering LEGO studs.Counters/bricksBattenberg cake | 100p = £1£1 = 100pReal money£ and pDienesArrays | 100p = £1£1 = 100pReal money£ and pDienesArrays | Human pictogramTally markingChocolate bar, bar chartsLEGOS |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| I have ten cubes and 5 friends, how may cubes will each friend get?Share these cubes between all your friends.Ben says that 2 x 2 x 2 = the same as 2 x 4. Is he right? How do you know?Sort these objects into even groups.This recipe serves 500 people. I need to feed just 5. What are the quantities of ingredients do I need? | Find the inverse of…10 divide by ? = 5, what is the missing number?Tom said that 2+2+2+2 is the same as 80 divided by 10, is he right? | Convert £4 into pence.How many 20p make £1.If have 450p, how many pounds and pence do I have?Laura says 50p+50p+50p is equal to two pounds, is she right?I get twenty pounds in pocket money, and I spend 675 pence, how much money do I have left? | My shopping costs £7.80, and I pay with a ten pound note, I get a 20p and a £1 coin in change, is this right?I have one 50p piece, two pound coins and a penny. How much money do I have in pounds?My friend has 100p and I have 550p, how much money do we all together in pound and pence? | Reading data from a sheet.Which group is the largest (when faced with a bar chart or pictogram)?How many blue cars are there in the car park? Represent this in a pictogramMark a tally every time I say… |
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| **Key Stage 3 Mapping****SPRING 2 MEDIUM-TERM PLANNING** |
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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Length & Perimeter** | **Fractions** |
| **Measuring** lengths, including comparing them. | **Measuring** equivalent lengths. | **Calculating** perimeter | **Counting** in tenths, including tenths as decimals. | **Ordering** fractions. | Finding **fractions** of set objects. |
| **ORAL/MENTAL STARTERS*****(Topic from the previous week is repeated1)*** |
| Measure your height and order yourself. | Who can throw the furthest? | Convert these measure into… | Find the perimeter of this room and convert into m. | Counting in tenths as a group. | Order these fractions… |
| **VOCABULARY** |
| Centimetre, (cm)Metres (m)Millimetre (mm)Length | Centimetre, (cm)Metres (m)Millimetre (mm)LengthEquivalent | Centimetre, (cm)Metres (m)Millimetre (mm)LengthPerimeter | Tenths0.1, 0.2 etcPlace valueDecimals | FractionEqual partTenth, half, quarter, thirds, whole | FractionEqual partTenth, half, quarter, thirds, wholeSharing equally |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| Metre sticks/rulersTape measuresMeasuring wheels | Metre sticks/rulersTape measuresMeasuring wheels10mm = 1cm100cm = 1m | Metre sticks/rulersTape measuresMeasuring wheels10mm = 1cm100cm = 1m | Dienes cubesFraction shapesCubesTenths = 1 whole split into ten equal parts.Pictorial examples under decimals. | Battenberg cakeFraction shapesDecimals shown under the decimals | Battenberg cakeFraction shapesDecimals shown under the decimalsSquared paper Base ten/ dienes |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| Which rope is the longest?Who is tallest?Order these ropes by length? I have a stick which is 150cm, and a stick which is 1m, which is longest?How much wrapping paper do I need?How many 2cm boxes can I fit into my 8cm long box? | What is 200mm in cm?Which is longer, 1m or 100mm?How many metres to X?How many millimetres in a metre?200cm + ? = 1m | Find the missing length of the square/ shape (regular shapes).Which football team has the biggest pitch?Which classroom has the biggest perimeter?How many fence panels will I need?Which is bigger, a square with a side of 1000cm, or a square with a side of 2m?Find the perimeter of this irregular shape. | Order these tenths.I have a cake, I give two tenths to my friend, how many tenths do I have left?If you split one pound between ten people, how much money would each person have? | Order these fractions.Which is bigger, two thirds or one half?Sam told me that two halves is the same as one whole, is he right? | Find one half of this set of cubes.I have one pizza and 4 friends coming over, how should I cut my pizza?My friend said two thirds of 3 pounds is bigger than one half of 3 pounds, is she right?Cut this shape into x. |
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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Fractions** | **Time** |
| **Comparing** Fractions  | **Adding** fractions  | **Subtracting** fractions  | Months in a year, days in a week and hours in a day.  | Telling time to 5 minutes, including roman numerals.  | **Recording** and **comparing** durations of events.  |
| **ORAL/MENTAL STARTERS** ***(Topic from the previous week is repeated1)*** |
| Find one half of x.  | Which fraction is the largest and which is the smallest? | Add these two fraction together.  | Subtract these fractions. | With your partner, order the months of the year.  | What time is right now, to the nearest five minutes.  |
| **VOCABULARY** |
| Comparing Fraction Denominator Numerator Ordering  | AddingAll together Fraction Denominator /numerator  | Fraction Denominator /numeratorTaking away Subtrac5ing  | Days of the week Months of the year Season Hours  | Roman numerals Clock Big hand and little hand Half past quarter to, past and on the hour.  | Recording Comparing Events Time language |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| Visual representations of the fractions, using various shapes Decimals under each fraction Squared paper Base ten/ dienes LEGO blocks  | Visual representations of the fractions, using various shapes Decimals under each fraction Squared paper Base ten/ dienes LEGO blocksCommon denominator  | Visual representations of the fractions, using various shapesDecimals under each fractionSquared paperBase ten/ dienesLEGO blocksCommon denominator | Month namesDay namesVisual reminders.CalendarsTimetablesDiaries | Big clocksThe four clock method Timetables Timelines Stopwatches Egg timersSand timers Am/pm  | Big clocksThe four clock method Timetables Stopwatches Egg timersSand timers Seconds, minutes,  |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| Who has the most slices of cake?My mum bought a new shirt with one third off £21, I bought a shirt with one half off £22. Who got the biggest discount?Order these fractions from smallest to largest. | My friend has ¼ of cake, and I have ¾, how much cake do we have all together?A sale says I get ½ off a dress, there’s an additional ¼ off, how much discount d I get all together?Add these fractions. | I have one whole cake, then my friend takes ¼ and my other friend takes a half. How much of the cake do I have left?Subtract these fractions. | How many months older am I than my brother?How many days until…How many hours in a week?My friend says its only five weeks until Christmas, is he right?How many days do we have in school? | What time do we go the school?Tom was meant to be here at 3 o clock, he is 20 minutes late, what time did he arrive?You start work at 9 o clock, it takes you 40 minutes ot travel to work. What time should you leave? | How long do you think this sand timer will last?Who can do exercise for the longest?What takes longer, boiling an egg or running 1500m. |
| **INTENT** |

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| **Key Stage 3 Mapping****SUMMER 2 MEDIUM-TERM PLANNING** |
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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| **Properties of Shapes** | **Mass & Capacity** |
| **Recognise and describing** 2D shapes | **Recognise and describing** 3D shapes | **Angles** in shapes, including right angles. | **Measuring** and **compare** mass, including grams, litres and centimetres. | **Adding** mass, including grams, litres and centimetres. | **Subtracting** mass, including grams, litres and centimetres. |
| **ORAL/MENTAL STARTERS*****(Topic from the previous week is repeated1)*** |
| What shapes have 4 sides? | Guess the shape game. | Draw me a cube. | Find these angels using a protractor. | Order these lengths from smallest to largest. | Find the total of all these weights. |
| **VOCABULARY** |
| CornersSidesNames of common 2D shapesRight angles/angles | SidesFacesVertices/vertexNames of common 3D shapes | ObtuseAcuteDegreesAnglesNames of common shapesRight angle | MeasureCompareGrams (g)/kilograms (kg)Millilitres(ml) /litres (l)Millimetres (mm)/Centimetres (cm) /metres (m) | MeasureCompareGrams (g)/kilograms (kg)Millilitres(ml) /litres (l)Millimetres (mm)/Centimetres (cm) /metres (m) | MeasureCompareGrams (g)/kilograms (kg)Millilitres(ml) /litres (l)Millimetres (mm)/Centimetres (cm) /metres (m) |
| **IMPLEMENTATION: CONCRETE | PICTORIAL | ABSTRACT REPRESENTATION** |
| Modelling clay/playdoughPhysical 2D shapesShapes in the environmentRegular and irregular shapes | Modelling clay/playdoughPhysical 3D shapesShapes in the environmentRegular and irregular shapes | Angel ‘eaters’Right angled rulersProtractorsAngles in the environmentModelled angles | Measuring jugs of various shapesRulers of various lengthsTape measureFunctioning scales | Measuring jugs of various shapesRulers of various lengthsTape measureFunctioning scales | Measuring jugs of various shapesRulers of various lengthsTape measureFunctioning scales |
| **IMPACT: SUGGESTED FUNCTIONAL / PROBLEM SOLVING ACTIVITIES** |
| Using real life examples of shapes, e.g. stop signs.What shape am I describing...?Draw me…Make me…What’s the biggest shape you can draw? | Using real life examples of shapes, e.g. dice.What shape am I describing...?Draw me…Make me… | How many right angles does a square have?Order these angles.In a regular hexagon, are all the angles the same? | My friend says that 100ml of water weights 100g, is he right? Is this true for all liquids?Who is the tallest in the class in cm?How many fencing panels will I need for my garden? | The recipe says I need 500g of butter, I currently have 430g, how much more do I need?My friend brought 1l of coke, and my other friend brought 3l of coke, how much do we have all together?I had 500g of butter, 500g of flour and 50g of sugar into my cake, how much should it weigh all together? | I have a 2l bottle of pop, I drink half, how much do I left?I need 600g of flour for my cake, the scale states 750g, how much do I have to take out?In the 1500m race, Mo has run 500m, how many metres does he have left to run? |
| **INTENT** |