

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b>Graffiti</b></p> <p>Each piece of paper will have 10 starter numbers to round to the nearest 10,100,1000 etc. As pupils rotate the group they add ten more numbers for the following group.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b>Inside/outside circles</b></p> <p>Pupils on the inside circle say a number/calculation for rounding. Outside circle provide the answer and then move on. Pupils swap over once circle as rotated</p>	<p><b>Activity 3: Choice activity</b></p> <p>Pupils are given 100 square and a mark on dice. They pick a starting point on the board then each pupil throws the dice. They have to provide a sum for the other person to estimate using the figures selected.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b>Showdown</b></p> <p>Each pupil in the group has a whiteboard. One pupil provides the number or calculation and the group have to work out the answer. After one min. it is 'Showdown' time.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can use my knowledge of rounding to routinely estimate the answer to a problem then after calculation, decide if my answer is reasonable. Sharing my solution with others.</i></p> <p><b>MNU2-01a</b></p>	<p><b>Active Plan2-1</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b>Maths games</b></p> <p>Desk top maths games, Rounding off numbers including decimals.</p> <p>BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>Group is given a large sheet of paper with a rounded number on it. They have to generate as many numbers which could be rounded up or down to that number.</p> <p>This could also be an individual or pair activity.</p>	<p><b>Activity 8:</b></p> <p>Provide pupils with dice (one for units, tens, hundreds etc) Pupils take turns rolling the dice starting with units and recording the number before rounding it to units, tens etc</p>	<p><b>Activity 7:</b></p> <p>Provide pupils with a pack of playing cards shuffle cards, pupil selects 9 cards and place them face down. Card one is turned over pupils have to predict if the next card is higher or lower. At the end pupils should estimate total number on all cards.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b>Graffiti</b></p> <p>Each piece of paper contains a fraction or decimal. The group have to generate as many equivalent fractions as possible before writing a new one for the next group. Each group checks previous answers.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b>Inside/outside</b></p> <p>Inside pupils provide decimal fraction and the outside circle has to say as many equivalent fractions as possible.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b>Pairs</b></p> <p>Group is given a set of pairs, which they can then play fraction snap or pairs with.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p>Pupils provided with a range of place value cards which are placed face down. Group takes it in turn to turn over a card and place in order, high – low.</p>	<p><b>Maths Outcome:</b></p> <p><i>I have extended the range of whole numbers I can work with and having explored how decimal fractions are constructed can explain the mark between a digit, its place and its value.</i></p> <p><b>MNU2 02a</b></p>	<p><b>Active Plan 2-2</b></p> <p><i>I have explored the context in which problems involving decimal fractions occur and can solve related problems using a variety of methods.</i></p> <p><b>MNU2 03b</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize</p> <p>Look at online supermarket shopping with a set budget.</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>.Pupils are provided with a variety of catalogues and a large sheet of paper. They have a certain amount to spend and must cut out pictures and glue onto a large sheet to show their purchases and the total spend &amp; any change remaining.</p> <p>Also individual or pair activity</p>	<p><b>Activity 8:</b></p> <p>Think Ball</p> <p>Pupils stand in a small group and pass the ball between themselves as they ask and answer questions. If they answer incorrectly they sit down.</p>	<p><b>Activity 7:</b></p> <p>Pupils work in a small group. One person writes a decimal number on the whiteboard and the rest of the group have to work out what needs to be added to make the next whole number eg 2.314</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b><u>Graffiti</u></b></p> <p>Each sheet of paper has an answer written in the middle and the number of steps to take to get from the question to the answer. Groups rotate and check previous groups calculations before starting their own.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Numbered Heads Together</u></b></p> <p>The teacher splits class into groups of 4/5. Each has a whiteboard Teacher provides an answer the pupils then have to decide on a problem solving type of question to fit.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b><u>Games Activity</u></b></p> <p>Group is given a set of pairs – mathematical questions and answers. They are shared equally &amp; pupils play snap or turn face down for snap.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Inside/outside</u></b></p> <p>Group stands in a circle. Inside asks a mathematical problem Outside group explains out how they are going to work out the answer before solving it.</p>	<p><b>Maths Outcome:</b></p> <p><i>Having determined which calculations are needed I can solve problems involving whole numbers using a range of methods, sharing my approaches and solutions with others.</i></p> <p><b>MNU”2- 03a</b></p>	<p><b>Active Plan 2-3</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b><u>Maths games</u></b></p> <p>Desk Top maths games, Dart Board Mental addition involving whole numbers</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b><u>Show Down</u></b></p> <p>Each pupil has a whiteboard they all write a number problem and then exchange boards. First person with correct answer wins the round.</p>	<p><b>Activity 8:</b></p> <p><b><u>Think Ball</u></b></p> <p>Pupils pass the think ball carrying out the process each time. The process should be written on the think ball and the person passing gives a number as the starting point. Any incorrect answers result in that person being out</p>	<p><b>Activity 7:</b></p> <p>Group requires 3 dice. They throw the dice to create a 3 digit number which forms the answer to a question they have to devise.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p>Target number is written in the middle of board (partners, groups, whole class) Work out the operations order to reach target number.</p> <p>Try with a different number or in reverse.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Graffiti</u></b></p> <p>Teacher writes a different number on each piece of paper. The group then has five numbers to generate as many questions as possible which will generate that answer.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b><u>Game</u></b></p> <p>Pupils are given a pack of cards and a dice with +,-,x,,÷, x2 etc marked on. Pupils are given a number to start and then pick a card they then throw the dice and carry out calculation eg <math>120 \div 10</math> Pupil can only take a turn if answer gives no remainders.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Stand and Deliver</u></b></p> <p>One pupil sets the question (number problem) the rest of the group have to work out the answer and sit down. Quiz master then asks everyone to show answer.</p>	<p><b>Maths Outcome:</b></p> <p><i>Having explored the need for rules for the order of operations in number calculations I can apply them correctly when solving simple problems.</i></p> <p><b>MTH 203c</b></p>	<p><b>Active Plan 2-4</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b><u>BBC Bitesize</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b><u>Number Countdown</u></b></p> <p>Pupils roll a dice to give HT,U and then randomly select five numbers from the 1-100 pile. They have to then try and decide which operations are required to match target.</p>	<p><b>Activity 8:</b></p> <p><b><u>Four Corners</u></b></p> <p>4 possible answers go to one which could be the answer.</p> <p>Calculation question is asked and children decide on the answer.</p>	<p><b>Activity 7:</b></p> <p><b><u>Think Ball</u></b></p> <p>Teacher writes a variety of operations on the think ball. Pupils are given a starting number and then complete an operation every time they catch the ball.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <u>Inside/Outside</u> Person on the inner circle selects an addition/subtraction fact between -20 &amp; 0 the person on the outside says the answer.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <u>Fish Bowl</u> Half of the children in the group try to solve a number equation using negative numbers. They must discuss their thinking out loud as the other half of the pupils are listening, thinking how they do it. After problem has been solved all discuss if they have worked well and given a sensible correct answer</p>	<p><b>Activity 3: Choice activity</b> <u>Guess the Question</u> Pupil writes an answer on whiteboard. In pairs pupils have to devise a positive/negative number problem which will give that answer. Pupils swap boards and check.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b> <u>Showdown</u> Each pupil in the group has a whiteboard. One pupil writes down a negative number then asks the rest of group to record previous/next 5 numbers in the sequence, when the pupil shouts 'showdown' the pupils must show their whiteboards</p>	<p><b>Maths Outcome:</b> <i>I can show my understanding of how the number line extends to include numbers less than zero and have investigated how these numbers occur and are used.</i>  <b>MNU2 04a</b></p>	<p><b>Active Plan 2-5</b></p>	<p><b>Activity 5: ICT activity</b>  <u>BBC Bitesize</u></p>
<p><b>Activity 9: Group Collaborative Strategy</b> <u>.Corners</u> Four corners labeled by teacher. Teacher/pupil asks a question and writes a different answer for each label on whiteboard. Pupils decide what answer is correct and move to that corner</p>	<p><b>Activity 8:</b> <u>Think Ball</u> Teacher places a variety of addition/subtraction, positive/negative numbers instructions on the ball. The group of pupils each selects a starting place before throwing the ball and calculation the correct answer.</p>	<p><b>Activity 7:</b> <u>Pairs</u> Pupils are given two sets of cards one containing positive/negative number problems and the other the answers. Pupils are to match them up by playing cards/</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b><u>Numbered Heads Together</u></b> Class split into small groups with a whiteboard. Teacher gives each group one minute to record as many answers as possible for each multiplication pattern</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <b><u>Graffiti</u></b> Teacher writes a starter number pattern on each sheet the group have one minute to continue pattern, before moving on.</p>	<p><b>Activity 3: Choice activity</b> <b><u>Game</u></b> Group play Tables Buzz, substituting the word Buzz instead of saying the station</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b> <b><u>Inside/Outside</u></b> Pupils on the inside say a number outside pupils have to provide as many factors as possible. Everyone then moves round.</p>	<p><b>Maths Outcome:</b> <i>Having explored the patterns and relationships in multiplication and division, I can investigate and identify the multiples and factors of numbers.</i>  <b>MTH 2-05a</b></p>	<p><b>Active Plan 2-6</b></p>	<p><b>Activity 5: ICT activity</b> <b><u>BBC Bitesize</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b> <b><u>Show Down</u></b> Each pupil has a whiteboard. One person writes down a pattern and everyone in the group has to continue it. Pupil who wins establishes next pattern.</p>	<p><b>Activity 8:</b> <b><u>Tables Bingo</u></b> Pupils can use prepared games or construct their own grid on a whiteboard using multiples from a times table eg x9, x12 etc. One pupil to be caller</p>	<p><b>Activity 7:</b> <b><u>Think Ball</u></b> Pupil pass the ball between themselves answering the multiplication question as they go. Wrong answers sit down. Winner is last man standing.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b><u>Inside/Outside Circles</u></b> Pupils on the inside say a fraction and outside give the decimal equivalent – everyone moves round.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <b><u>Graffiti</u></b> Each piece of paper will have a decimal fraction written in the middle, groups must record as many equivalent fractions within a set time.</p>	<p><b>Activity 3: Choice activity</b> <b><u>Percentage Quiz</u></b> Quiz master informs the group of the cost of a meal and then throws the dice (% marked on) the group then calculate the service charge.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b> In Pairs look at the most recent shares increase/decrease and calculate greatest % change. First pair to finish win.</p>	<p><b>Maths Outcome:</b> <i>I have investigated the everyday context in which simple fractions, percentages or decimal fractions are used and can carry out necessary calculations to solve related problems.</i>  <b>MNU 2-07a</b></p>	<p><b>Active Plan 2-7</b></p>	<p><b>Activity 5: ICT activity</b>  <b><u>BBC Bitesize</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b> <b><u>Show Down</u></b> each pupil has a whiteboard. Person in the middle is the Banker, he/she shouts the % interest on savings of a certain amount. Group calculate total until banker shouts ‘Show Down’</p>	<p><b>Activity 8:</b> <b><u>Guess the question</u></b> Pupil writes an answer on a whiteboard. In pairs pupils have to devise a fraction/decimal/ percentage problem which will give that answer. Pupils swap boards and check.</p>	<p><b>Activity 7:</b> <b><u>Stand and deliver</u></b> Group stands up. One pupil asks the group a problem involving calculation a % increase in pocket money, when they finish they sit down. The first person to deliver the answer correctly wins.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b><u>Corners</u></b> Ask the children to find fractions of quantities (eg <math>\frac{1}{4}</math> of 20) and go to the corner displaying the correct answer. Children have to explain to a partner why they chose that corner.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <b><u>Inside/Outside Circles</u></b> Children on inner circle as questions about fractions, decimals and percentages (e.g change a half to a percent etc) the children on the outer circle say the answer.</p>	<p><b>Activity 3: Choice activity</b> <b><u>Games</u></b> (Choice-what) Snap cards – match fraction to decimal and percentage Equivalent dominoes</p>	<p><b>Activity 4: Choice activity</b> <b><u>Thinkball</u></b> Ball is thrown in a small circle and when pupil's thumb lands on the decimal/fraction they have to say the percentage. Or start with a number and when thumb lands on percentage they have to take that amount away.</p>
<p><b>Activity 10: Group Collaborative Strategy</b> <b><u>Show down</u></b> Each pupil has a whiteboard. One pupil states the name of a shape and the rest of the group write down the properties of that shape. The questioner then shouts 'show down' and the group reveal their answer and discuss.</p>	<p><b>Maths Outcome:</b> <i>I can show equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.</i>  <b>MNU 2-07b</b></p>	<p><b>Active Plan 2-8</b></p>	<p><b>Activity 5: ICT activity</b> <b><u>BBC Bitesize</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b> <b><u>Graffiti</u></b> 4 Stations with large sheets of paper. Each piece of paper has the name of a 3D shape at the top. Each group is given a different colour pen. They write down anything they can think of which corresponds with the shape eg triangular prism – toblerone, tent etc. Groups rotate.</p>	<p><b>Activity 8:</b> <b><u>Build a Shape</u></b> Use polydron/Art straws plasticine to build 3D shapes.</p>	<p><b>Activity 7:</b> <b><u>Cut and Stick</u></b> Cut out nets of 3D shapes and stick together to make shapes.</p>	<p><b>Activity 6:</b> <b><u>Loop Cards</u></b> I have a triangle. Who has a 2D shape with 6 sides? etc</p>



<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Hot-seating</u> I person thinks of a fraction. (Sticks-No Hands-up) Children ask questions relating to fraction to discover identity</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p>Feedback at end of lesson. Target in middle of board. Children use whiteboard pens. Write on large board what they have learned.</p>	<p><b>Activity 3: Choice activity</b></p> <p><i>Fraction Dominoes.</i></p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><u>Target fractions:</u> Big sheets of paper. Target fraction in middle. Children any properties they can come up with.</p>	<p><b>Maths Outcome:</b></p> <p><i>I have investigated how a set of equivalent fractions can be created understanding the meaning of simplest form and can apply my knowledge to compare and order the most commonly used fractions.</i></p> <p><b>MTH 2-07c</b></p>	<p><b>Active Plan 2-9</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>Snap equivalent cards. Children find pairs of fractions which match.</p>	<p><b>Activity 8:</b></p> <p><u>Quizmaster (Showdown)</u> Quizmaster names a fraction. Children in group each have to write down as much as they can about that fraction eg equivalent of fractions.</p>	<p><b>Activity 7:</b></p> <p><u>Think ball</u> Ball thrown in small circle. Wherever thumb lands read the fraction – give an alternative fraction.</p>	<p><b>Activity 6:</b></p> <p><u>Quiz</u> University Challenge style. In groups question about fractions. Groups answer and receive points.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p>Teacher places a profit and loss card at opposite ends of the class. T asks a problem question and children decide whether it is profit or loss. Correct answers stay up.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Inside/outside Circles</u></b></p> <p>Pupils on the inside of the circle say the cost of an item and say a problem involving profit or loss. The outside circle then says either profit or loss.</p>	<p><b>Activity 3: Choice activity</b></p> <p>Pupils given a budget to purchase..... items determined by the quiz master from a variety of catalogues. The winner is the person who has spent the least amount of money.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Show Down</u></b></p> <p>Each pupil in the group has a whiteboard, one pupil asks the other to calculate a new bank balance by adding interest on to a fixed amount determined by them. ‘Show Down’ for answer</p>	<p><b>Maths Outcome:</b></p> <p><i>I can manage money, compare costs from different retailers and determine what I can afford to buy.</i></p> <p><i>MNU 2-09a</i></p> <p><i>I understand the costs, benefits and risks of using bank cards to purchase goods or obtain cash and realize budgeting is important</i></p> <p><i>MNU 2-09b</i></p>	<p><i>I can use the terms profit and loss in buying and selling activities and can make simple calculations for this.</i></p> <p><i>MNU 2-09c</i></p> <p><b>Active Plan 2-10</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b><u>Pairs</u></b></p> <p>In pairs use a travel website and with a set budget identify the cheapest flight to a destination determined by the teacher. Winner is decided at the end of session.</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>.Pupils work in pairs and presented with ten statement cards which have profit/loss statements including answers (some answers fake). Pupils have to sort into two piles – True/false, Winner is pair with most correct in set time.</p>	<p><b>Activity 8:</b></p> <p><b><u>Think Ball</u></b></p> <p>Everyone in the group begins with the same amount. Teacher places variety of (% interest charges in ball) as pupils pass the ball they have to calculate then total repayment. Winner is pupil is pupil who owes the least.</p>	<p><b>Activity 7:</b></p> <p><b><u>Game</u></b></p> <p>Monopoly</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b>Corners</b> Each corner is given a station with a fixed time period. Pupils are given a problem involving a time duration and they have to select appropriate corner.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <b>Inside/Outside</b> Pupils on the inside of the circle give journey duration and start time, outside pupils have to provide the correct answer.</p>	<p><b>Activity 3: Choice activity</b> Using magazines and newspapers the pupils create their own TV schedule. The pupils will then devise questions on their finished timetable for another group to answer.</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b> <b>Show Down</b> Pupils each have a whiteboard. One pupil turns a timer over and pupils have to write down as many (tables) in the time given.</p>	<p><b>Maths Outcome:</b> <i>I can use and interpret electronic and paper-based and schedules to plan events and activities and make time calculations as part of my planning.</i> <b>MNU 2-10a</b> <i>I can carry out practical tasks and investigations involving timed events and can explain which unit of time would be most appropriate to use.</i> <b>MNU 2-10b</b></p>	<p>Using simple time periods, I can give a good estimate of how long a journey should take, based on my knowledge of the link between time, speed and distance. <b>MNU 2-10c</b></p> <p style="text-align: center;"><b>Active Plan 2-11</b></p>	<p><b>Activity 5: ICT activity</b> <b>Maths Games</b> Desk Top maths games – Stop the Clock, matching analogue and digital times</p>
<p><b>Activity 9: Group Collaborative Strategy</b> <b>Stand and deliver</b> One pupil is in charge of the timer. The pupil informs the group they should sit down after a certain period has passed. Pupils have to estimate the duration (1 min – 5 min).</p>	<p><b>Activity 8:</b> Using a variety of bus and rail timetables pupils have to plan 3 alternative routes to get to the same destination. They should then calculate the fastest time, speed and distance.</p>	<p><b>Activity 7:</b> <b>Think Ball</b> Teacher places a variety of time durations on the ball. The group of pupils each select a starting time before throwing the ball and calculating the new time.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b><u>Graffiti</u></b></p> <p>A large sheet of paper is placed in each corner with a unit of measure written in the middle. Pupils have to list as many items which could be measured using that unit, then rotate.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Inside/Outside</u></b></p> <p>Pupils on the inside circle say an object and the outside circle has to identify the appropriate unit to measure it eg elephant, mouse</p>	<p><b>Activity 3: Choice activity</b></p> <p><b><u>Cooking</u></b></p> <p>Pupils are given a simple recipe to follow. They work in pairs to estimate the weight of the ingredients before weighing and checking</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Hot seating</u></b></p> <p>Group pick a Mastermind to answer all of their questions about estimation. When an incorrect answer is given the Hot Seat guest changes</p>	<p><b>Maths Outcome:</b></p> <p><i>I can use my knowledge of the sizes of familiar objects or places to assist me when making an estimate of measure.</i></p> <p><b><i>MNU 2-11a</i></b></p>	<p><b><i>Active Plan 2-12</i></b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b><u>BBC Bitesize</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b><u>Stand and Deliver</u></b></p> <p>Pupil calls out a weight/length and the pupils have to list as many items that length as they can, when finished they sit down.</p>	<p><b>Activity 8:</b></p> <p><b><u>Playground Measure</u></b></p> <p>In pairs pupils estimate 1m, 10m, 100m, 1000km and then devise a way to check their estimations.</p>	<p><b>Activity 7:</b></p> <p><b><u>Games</u></b></p> <p>Pupils presented with a variety of packages or shopping items. They have to arrange them in weight order by estimation items and then weigh to check.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b><u>Corners</u></b></p> <p>Units of measure are placed in each corner. T calls out an object and pupils have to decide on the most appropriate unit and go to that corner.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Inside/Outside</u></b></p> <p>Pupils on the inside give an amount and unit of measure, outside pupils have to convert the unit of measure before moving round.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b><u>Games</u></b></p> <p>Pairs involving units of measure and related items....(cm, m, km) or (g, kg)</p>	<p><b>Activity 4: Choice activity</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Show Down</u></b></p> <p>Everyone is given a whiteboard one pupil writes an amount and unit of measure. All pupils convert the unit and show their answers when it is Show Down time.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can use the common unit of measure, convert between related units of the metric system and carry out calculations when solving problems.</i></p> <p><b><i>MNU 2-11b</i></b></p>	<p><b><i>Active Plan 2-13</i></b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b>BBC Bitesize</b></p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>In trios pupils are given TV listings from a newspaper/magazine. Looking at the schedule they have to plan viewing for a certain amount of time eg 135 mins.</p>	<p><b>Activity 8:</b></p> <p><b><u>Cooking</u></b></p> <p>Pupils work in small groups with a simple recipe which they have to convert from kg into gs before starting. Answers should be discussed before cooking begins.</p>	<p><b>Activity 7:</b></p> <p>Group splits into two and pupils set problems for each other but only after they have worked out the answer. The problem must involve a metric conversion.</p>	<p><b>Activity 6:</b></p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b><u>Graffiti</u></b></p> <p>Each piece of paper will have either an area or a perimeter of a 2D shape. Groups must draw as many shapes as they can with that area/perimeter. As groups rotate they check previous group answers.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b><u>Inside/Outside</u></b></p> <p>Pupils on the inside circle name a 3D shape. Pupils on outer circle have to say as many objects with a greater/smaller volume.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b><u>Feely Bag</u></b></p> <p>Provide a bag with assorted 3D shapes in the bag and describe its properties to the group and identify whether its volume is greater or smaller than each persons start off shape.</p>	<p><b>Activity 4: Choice activity</b></p> <p>(T)</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b><u>Show Down</u></b></p> <p>Each pupil in the group has a whiteboard. One pupil asks the others to draw "D shapes stating their area of perimeter. When pupils shout 'Show Down' the group have to show their boards.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can explain how different methods can be used to find the perimeter of simple 2D shape or volume of a simple 3D object.</i></p> <p><b>MNU 2-11c</b></p>	<p><b>Active Plan 2-14</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b><u>Research</u></b></p> <p>Pupils use the internet to research activity cards related to area, perimeter, and volume eg Which country has the largest area/smallest area. What is the area of Hampden Park.</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b><u>Stand and Deliver</u></b></p> <p>Group stands up. One pupil tells the group to make a 2D shape with an area/perimeter of..... When they finish the task they sit down. The first person to determine the shape correctly wins.</p>	<p><b>Activity 8:</b></p> <p>Pupils provided with assorted nets of shapes. They have to discuss them and arrange in order small to large. They then make the nets into 3D shapes and measure the volume using cubes etc.</p>	<p><b>Activity 7:</b></p> <p>Pupils provided with art straws, blu tac and a set of cards with volume amounts on them. Pupils work in pairs to make 3D shapes and measure the volume using cubes etc.</p>	<p><b>Activity 6:</b></p> <p>(T)</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b>Fishbowl:</b> Class are split into two groups. 1<sup>st</sup> group discuss an invention where maths could have had an impact and discuss ways in which it played a part. 2<sup>nd</sup> group observe discussion and feedback on their progress/outcomes. The teams then swap roles</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b>Corners:</b> Each corner displays the name of an area of maths e.g. time, probability, data handling etc. The teacher states an experience/ invention from everyday life (planning a day out) and the pupils go to the corner which they think displays the related element of maths. They must explain how that area impacts on the experience or invention.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b>Budget Holiday:</b> Give pupils a budget and requirements for a family holiday. Pupils must find a suitable holiday which meets the requirements. They can use internet, holiday brochures etc. They must present their findings at the end of the task.</p>	<p><b>Activity 4: Choice activity</b></p> <p><b>Budget Shopping:</b> Pupils are given a budget and requirements for a weekly shopping list for a family. They must use internet or catalogues to create the weeks shopping list within the allocated budget. Can they afford luxury items?</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b>Graffiti:</b> Each piece of paper states a different area of maths e.g. time, algebra, handling data etc. The group must think of how that area impacts on aspects of everyday life/inventions. (Time: bus timetables, airlines, timing cooking stc)</p>	<p><b>Maths Outcome:</b></p> <p><i>I have worked with others to explore and present our findings on, how mathematics impacts on the world and the important part it has played in advances and inventions. MTH 2-12a</i></p>	<p><b>Active Plan 2-15</b></p>	
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b>Numbered Heads Together:</b> Each pupil in the group is given a number. The group discuss an invention, e.g. bridges, and discuss how maths relates to that invention. Teacher calls a number and that pupil must write down the answer.</p>	<p><b>Activity 8:</b></p> <p><b>Facts about Maths</b> <a href="http://www.factmonster.com/mathmoney.htm">www.factmonster.com/mathmoney.htm</a> Pupils will explore the link above to find out useful facts about maths inventions and current uses such as currency converters, sundials, converting measurements to metric and many more.</p>	<p><b>Activity 7:</b></p> <p><b>Holiday Itinerary:</b> Pupils are provided with train/bus timetables in order to plan a journey (a more complicated journey will depend on the ability of the pupils). They must present their findings in a grid or table format.</p>	<p><b>Activity 6:</b></p> <p><b>Monopoly:</b> Pupils play a game of Monopoly with teacher guidance. Explain as they play how to get a mortgage, buy property, rent out their property, handle their money etc.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Graffiti</u> Pupils in groups of 4-6, work around stations where large sheets of paper have an initial number sequence written down. The group continues the sequence then writes a new sequence for the next group.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><u>Corners</u> Teacher writes a no. sequence on whiteboard and asks for next two in sequence. Pupils choose from four possible answers and go to that corner when teacher shouts 'Go'. Pupils explain their choices.</p>	<p><b>Activity 3: Choice activity</b></p> <p>Show patterns of square and triangular numbers.</p> <p>What is the rule?-Game</p> <p>Missing number sheet</p>	<p><b>Activity 4: Choice activity</b></p> <p>Research Pascal's Triangle.</p> <p>Research how Fibonacci sequence occurs in nature.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><u>Show me-Number fans</u> One pupil gives a sequence (either written or verbal) and asks for next no. in sequence. After thinking time, he/she shouts 'Show Me'.</p>	<p><b>Maths Outcome:</b> <i>Having explored more complex number sequences, including well-known named number patterns, I can explain the rule used to generate the sequence, and apply it to extend the pattern.</i> <b>MTH 2-13a</b></p>	<p><b>Active Plan 2-16</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize.</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><u>Problem solving</u> Pupils work together in groups to find solution to a problem based on a chess board and involving a sequence of square numbers.</p>	<p><b>Activity 8:</b> Multiplication square/100 square Magnetic big board Use large version to investigate patterns and no. sequences. Pupils have a small square and counters.</p>	<p><b>Activity 7:</b></p> <p><u>Smart chute</u> Pupils place cards with a no sequence into a chute which flips it over to reveal the continued pattern. Game involves pupils trying to shout out the answer before it is shown.</p>	<p><b>Activity 6:</b></p> <p><u>Fibonacci Sequence Challenge</u> Pupils work in pairs/small groups. Investigate and find the rule. Calculate the first 25 numbers in the sequence. Use a calculator if necessary.</p>



<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Introduction Hot-seating</u> Person gives basic problem eg <math>4x=32</math>. Remainder of class have to solve <math>x</math>.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><u>2 Circles.</u> One inside/one outside. Inside circle quickly make up question. Children in outside circle have to answer.</p>	<p><b>Activity 3: Choice activity</b></p> <p><u>Graffiti.</u> 4 stations. A different task each. Different equation for children to report back.</p>	<p><b>Activity 4: Choice activity</b></p> <p><u>LOCATION</u> Partners- Children are put into two teams of four. One half of the team are the teachers and the other half are the learners. Provide the children with simple equations to solve and teach the other half how they reached the solution.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><u>Fishbowl:2 teams.</u> 1 team given problem. Discuss how to solve – 2<sup>nd</sup> team join in.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can apply my knowledge of number facts to solve problems where an unknown value is represented by a symbol or letter.</i></p> <p><b>MTH 2-15a</b></p>	<p><b>Active Plan 2-17</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>Sticks with childrens name. First name out makes up question with symbol/letter. Next person answers – continues.</p>	<p><b>Activity 8:</b></p> <p><u>Whole class.</u> Feedback at end of lesson. Target in middle of board. Children use whiteboard pens. Write on large board what they have learned</p>	<p><b>Activity 7:</b></p> <p><u>Quizmaster/Showdown.</u> Quizmaster asks question eg multiplication/division using symbol. Children try and answer</p>	<p><b>Activity 6:</b></p> <p>In teams of 4 children are given an equation to solve to teach other half of their group.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <u>Inside/Outside circles.</u> <i>Children in the inside circle say the name of a 2D/3D shape and those on the outside have to state as many properties of that shape as possible before it's time to move to the next person.. Choose a time limit to suit class.</i></p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <u>Number Fans:</u> The teacher names a 3D shape and asks how many edges, vertices and faces it has. Pupils show the answers on their number fans.</p>	<p><b>Activity 3: Choice activity</b> <u>Matching games</u> – Match shape name, picture and properties. <u>Find shapes in the classroom</u> – Find objects in the class which are particular shapes and record results in a table.</p>	<p><b>Activity 4: Choice activity</b> <b>Thinkball:</b> Ball is thrown in small circle and when pupil's thumb lands on a 3D/2D shape they have to state the properties of that shape.</p>
<p><b>Activity 10: Group Collaborative Strategy</b> <u>Show Down:</u> Each pupil has a white board.. One pupil states the name of a shape and the rest of the group write down the properties of that shape. The questioner then shouts 'show down' and the group reveal their answers and discuss</p>	<p><b>Maths Outcome:</b> <i>Having explored a range of 3D objects and 2D shapes, I can use mathematical language to describe their properties, and through investigation can discuss where and why particular shapes are used in the environment MTH 2-16a</i></p>	<p><b>Active Plan 2-18</b></p>	<p><b>Activity 5: ICT activity</b> <b>BBC Bitesize</b> Whole range of games available for 2D and 3D shape.</p>
<p><b>Activity 9: Group Collaborative Strategy</b> <u>Graffiti:</u> 4 stations with large sheets of paper. Each piece of paper has the name of a 3D shape at top. Each group is given a different colour of pen. They write down anything they can think of which corresponds with the shape e.g triangular prism- toberone, tent etc. Groups rotate.</p>	<p><b>Activity 8:</b> <u>Build a shape:</u> Use polydron / Art straws and plasticine to build 3D shapes</p>	<p><b>Activity 7:</b> <u>Cut and Stick:</u> Cut out nets of 3D shapes and stick together to make shapes</p>	<p><b>Activity 6:</b> <u>Loop Cards:</u> 'I have a triangle. Who has a 2D shape with 6 sides?' etc.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b>Corners</b> Each person in the class is asked the same question and then chooses one of the corners in the class which they think shows the correct answer (already labelled by teacher). Chn are then asked to pair up and discuss why they chose that corner and report back</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> Loop cards for revision of shape properties.</p>	<p><b>Activity 3: Choice activity</b> <b>Games:</b> Match shape to correct net</p>	<p><b>Activity 4: Choice activity</b> Make shape nets from an assortment of junk objects. Unfold object, eg cereal box to find net. Draw net onto squared paper.</p>
<p><b>Activity 10: Group Collaborative Strategy</b> <b>Quiz</b>, led by children, matching activity linking shapes to net.</p>	<p><b>Maths Outcome:</b> <i>Through taking part in practical activities I can demonstrate my understanding of the relationship between 3D objects and their nets</i>  <b>MTH 2-16b</b></p>	<p style="text-align: center;"><b>Active Plan 2-19</b></p>	<p><b>Activity 5: ICT activity</b>  <b>BBC Bitesize</b></p>
<p><b>Activity 9: Group Collaborative Strategy</b> Construct a model using shapes constructed from nets.</p>	<p><b>Activity 8:</b></p>	<p><b>Activity 7:</b></p>	<p><b>Activity 6:</b> Cut and fold practical activity to make shape from net eg Square based pyramid.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Graffiti:</u> Each piece of paper will have the name of a 2D shape. Groups must draw as many things as they can think of which is that shape (circle: clock face, C.D etc) They will rotate to each piece of paper and add to the original ideas.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><u>Inside/Outside Circles:</u> Pupils on the inside circle say the name of a 3D shape. Pupils on the outer circle have to say as many objects as possible which are that particular shape. (cylinder: tin of beans, can of Coke, Smartie tube)</p>	<p><b>Activity 3: Choice activity</b></p> <p><u>Shape Quiz:</u> Provide a number of questions about 2D shapes e.g. draw a hexagon/ draw a shape with 5 sides etc (teacher can devise or there are plenty on the internet) pupils can either draw or write their answers.</p>	<p><b>Activity 4: Choice activity</b></p> <p><u>Feely Bag:</u> Provide a bag with 3D shapes (plastic shapes or real objects e.g. tins, boxes etc) Pupils must feel a shape in the bag and describe its properties to the group e.g. it has a point/circle at the bottom. Group must guess and name the shape.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><u>Showdown:</u> Each pupil in the group has a whiteboard. One pupil asks the others to draw shapes stating only their properties e.g. draw a shape with 4 equal sides etc. When that pupil shouts 'showdown' the group have to show their boards</p>	<p><b>Maths Outcome:</b> <i>I can draw 2D shapes and make representations of 3D objects using an appropriate range of methods and efficient use of resources.</i> <b>MTH 2-16c</b></p>	<p><b>Active Plan 2-20</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><u>Research:</u> Pupils use the internet to research the properties of different types of triangle. They must record their findings and report back at end of session stating the difference between Isosceles, Equilateral and Scalene triangles.</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><u>Stand and Deliver:</u> Group stands up. One pupil tells the group to make a 3D shape using straws and blu-tac (or other resource). When they finish the task they sit down. The first person to deliver the shape correctly wins!</p>	<p><b>Activity 8:</b> Provide materials to make nets of 3D shapes (linking shapes/ready made nets to cut out). Group must try to make a 3D shape using as many different nets as possible by using the linking shapes, paper, straws and blu-tac etc.</p>	<p><b>Activity 7:</b> Using a compass the children have to draw circle patterns. Each circle must have a different radius/diameter. Rulers will be provided to measure the radius of each circle.</p>	<p><b>Activity 6:</b></p> <p><u>Group Challenge:</u> Pupils will be given the necessary materials (paper, rulers, compasses, flat 2D shapes etc) to make representations of 3D objects such as tins, gift boxes, sweet packets etc. Each group should make a different object.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <u>Inside/outside circles</u> Children in inner circle name an angle. Outer circle children provide information about this. Outer circle rotates and child in inner circle repeats question to other child.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p>	<p><b>Activity 3: Choice activity</b> <u>Target angles :</u> Big sheets of paper. Different types of angles written in the middle eg right angle, obtuse, reflex, acute etc. Children draw these angles and write down properties of them.</p>	<p><b>Activity 4: Choice activity</b> <u>Showdown</u> Pupils in group take it in turn to state a fact about an angle. Other members of group have to guess the name of the angle.</p>
<p><b>Activity 10: Group Collaborative Strategy</b> <u>Inside – Outside</u> Find angles for themselves in the environments.</p>	<p><b>Maths Outcome:</b> <i>I have investigated angles in the environment and can discuss, describe and classify angles using appropriate mathematical vocabulary</i> <i>MTH 2-17a</i></p>	<p style="text-align: center;"><b>Active Plan 2-21</b></p>	<p><b>Activity 5: ICT activity</b>  BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b> As a group draw and label objects on white board.</p>	<p><b>Activity 8:</b> <u>Partners.</u> Children are with partners of mixed ability. Given a named angle on a piece of paper. Each child helps each other understand properties of this angle.</p>	<p><b>Activity 7:</b> Team-pair-solo Class divided into four groups. Each group given an angle to discuss and draw possibilities. Angles –right angle, obtuse, reflex, acute and straight line. Pupils attempt as a team, partner and finally on their own.</p>	<p><b>Activity 6:</b> <u>Hot-seating</u> Use sticks – No Hands-up Person in Hot-seat thinks of a named angle. Children are allowed to ask one question relating to angle until angle is correctly guessed. Good evaluation of all activities.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Circle the Sage.</u> Sages are pupils with special knowledge of using a protractor to measure angles. Each pupil in a group chooses to learn from a different sage. Groups reform and discuss what has been learned.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><u>Fish bowl</u> Each group split into two. One half thinks out loud and describes each step needed to accurately measure a given angle. The other pupils listen and observe closely. The whole group then discusses.</p>	<p><b>Activity 3: Choice activity</b></p> <p>Investigate angles in the school environment which can be estimated e.g. an acute angle approximately 65 degrees. This can then be represented on paper and angles measured accurately.</p>	<p><b>Activity 4: Choice activity</b></p> <p><u>Games</u> Angles in sport Snooker, football, tennis etc.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p>One pupil has a visual representation of e.g. a house. He/she describes this in detail, giving length of lines and angles. The other pupils aim to draw a precise replica. No peeking.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can accurately measure and draw angles using appropriate equipment, applying my skills to problems in context.</i></p> <p><b>MTH 2-17b</b></p>	<p><b>Active Plan 2-22</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><a href="http://www.woodlands-junior.kent.sch.uk">www.woodlands-junior.kent.sch.uk</a></p> <p><i>Protractor Pro Measuring Angles</i></p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>In pairs, pupils collaborate to make a drawing of a simple object with each angle accurately measured and recorded.</p>	<p><b>Activity 8:</b></p> <p><u>Token listening</u> Group discusses the application /relevance of angle measurement. Each pupil has three tokens. When they make a contribution they put a token in a box but they must summarise the previous speaker's contribution.</p>	<p><b>Activity 7:</b></p> <p>Draw a small scale floor plan for the classroom or a football pitch. Ensure that corners are (where appropriate) accurately drawn at 90 degrees.</p>	<p><b>Activity 6:</b></p> <p>Pupils work in pairs to practise drawing and measuring a variety of angles on large sheets of paper. Pupils swap and check each other's measurements.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p>Pupil direct the rest of the class through a series of directions involving angle turns &amp; directions. Activity works best in larger areas.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p>All pupils given a treasure map. Teacher provides starting point and guides pupils to hidden treasure. Everyone shows location at the same time.</p>	<p><b>Activity 3: Choice activity</b></p> <p><b>Roamer</b></p> <p>Group uses a roamer map designed by another group and completes the activities.</p>	<p><b>Activity 4: Choice activity</b></p> <p>(T)</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p>All pupils begin with a laminated grid square. One pupil marks on a magic star and pupils have to then be guided towards it by that pupil. Winner first to star.</p>	<p><b>Maths Outcome:</b></p> <p><i>Through practical activities which include the use of technology. I have developed my understanding of the link between compass points and angles and can describe, follow &amp; record directions, routes and journeys using appropriate vocabulary.</i></p> <p><i>MTH 2-17c</i></p>	<p><b>Active Plan 2-23</b></p>	<p><b>Activity 5: ICT activity</b></p> <p><b>BBC Bitesize</b></p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b>.Think Ball</b></p> <p>Teacher places a variety of directions in the pockets of the ball, pupils then pass the ball and follow the directions they land on.</p>	<p><b>Activity 8:</b></p> <p><b>Robot Game</b></p> <p>Pupils work in pairs. One acts as the robot (they should be blindfolded) the other pupil is the controller. They use compass points &amp;/or route direction to guide the robot to collect fuel (small ball passed around the room)</p>	<p><b>Activity 7:</b></p> <p><b>Roamer</b></p> <p>Pupils plan out a map for the roamer with a theme and a set of instruction cards for another group to navigate round the completed grid.</p>	<p><b>Activity 6:</b></p> <p>(T)</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <i>Take out Ordnance Survey maps for Hamilton area (given to all Primary 7 children)</i> <i>Whole class go out to playground and examine map while identifying these locations in nearby area.</i></p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> Back in class children, working in pairs to help each other, examine scale details on map and work out actual size of 3 locations.</p>	<p><b>Activity 3: Choice activity</b> <u>Quizmaster</u> – Using maps one person names a location, other members of group must work out actual size of this area making use of scale.</p>	<p><b>Activity 4: Choice activity</b> <u>Graffiti</u> Large sheet of paper. Children asked to draw a plan using scale stated on paper.</p>
<p><b>Activity 10: Group Collaborative Strategy</b> Still outside groups discuss one object area looking at size and shape on map and in reality.</p>	<p><b>Maths Outcome:</b> <i>Having investigated where, why and how scale is used and expressed, I can apply my understanding to interpret simple models, maps and plans.</i> <b>MTH 2-17d</b></p>	<p><b>Active Plan 2-24</b></p>	<p><b>Activity 5: ICT activity</b> Go onto Ordnance Survey webpage and look at scale activities</p>
<p><b>Activity 9: Group Collaborative Strategy</b> Children draw a scaled plan of the classroom.</p>	<p><b>Activity 8:</b> Working in groups children construct 3D structures working out appropriate scale and making use of this.</p>	<p><b>Activity 7:</b> <u>Partners</u> Divide children into teams of four. Partners move to one side of the room. Given a scale to try to understand.</p>	<p><b>Activity 6:</b> Feedback at end of activities. Target written in coloured pen in middle of board. Children use whiteboard pens. Write on large board what they have learned.</p>



<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><u>Corners</u> The teacher would display a co-ordinate grid on the board, perhaps a treasure map. Around the room would be different answers to the grid point. The children are asked to go to the corner which displays the correct co-ordinate point.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><u>Numbered heads together:</u> The teacher would split the class into teams of 4 or 5. Every member is given a number. Each team would be given a large laminated co-ordinate grid with 5 or 6 different points plotted. Within the team they must work together to find the correct co-ordinates. The teacher would then call out a member of the team who has to <i>display the grid and explain the solution</i></p>	<p><b>Activity 3: Choice activity</b></p> <p><u>Games:</u> <u>Snap or Pairs cards:</u> The children have a set of co-ordinate grids where the teacher has plotted one point. Another set of cards will display a co-ordinate point. The children have to match the grid to the correct point.</p>	<p><b>Activity 4: Choice activity</b></p> <p><i>Using string and number stencils, the children create their own co-ordinate grid. They are then each given a different coloured counter and asked to put it into different squares on the grid. The facilitator will then ask children to move the counters to different co-ordinate points of the grid.</i></p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><u>Show Down:</u> Each pupil has a white board. One pupil calls out the coordinates of a grid the rest of the group plot and joins the points of that shape. The questioner then shouts 'show down' and the group reveal their answers and discuss.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can use my knowledge of the co-ordinate system to plot and describe the location of a point on a grid.</i> <b>MTH 2-18a</b></p>	<p><b>Active Plan 2-25</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p>. Divide the children into groups and give them a grid with 10 or more points plotted and a 10 coordinate answers underneath some will be correct some will be incorrect. The children have to investigate which grid points are correct.</p>	<p><b>Activity 8:</b></p> <p><u>Create a Grid:</u> The children split into pairs and are told that they have to design a map for a new shopping centre. They must show locations of places of interest by plotting the points on the grid. They then swap their grid with another pair and ask them to record the co-ordinates. Extension: Ask the children to plan the routes from e.g. the cinema to the ice skating.</p>	<p><b>Activity 7:</b></p> <p><u>Atlas co-ordinates:</u> The children are given an atlas each with co-ordinate grids. They then have to quiz each other on e.g what would you find in A9? Name the co-ordinates which Glasgow lies between?</p>	<p><b>Activity 6:</b> <u>Playground co-ordinates:</u> The teacher or a classroom assistant takes a small group of children outside to the playground to draw a co-ordinate grid. The facilitator then calls out a co-ordinate and the child has to jump on to the right part of the grid.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b>Corners:</b> The teacher asks the pupils how many lines of symmetry a variety of 2D shapes have. The pupils will choose to go to the corner, which displays the correct answer. They will have to explain to a partner why they have chosen that corner.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b>Inside/ Outside circles:</b> Person on the inner circle makes a statement about a 2D shape (e.g. A square has seven lines of symmetry.) The pupils on the outer circle either agree or disagree and state their reasons why</p>	<p><b>Activity 3: Choice activity</b></p> <p><b>Matching Game:</b> Provide lots of symmetrical patterns which are cut in half. The pupils have to find the missing half and put them together.</p>	<p><b>Activity 4: Choice activity</b></p> <p><b>Symmetrical Faces:</b> Pupils choose a picture from a magazine and cut off half of the face. They must draw in the other half of the face showing symmetry.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b>Numbered Heads Together:</b> Groups are provided with complete symmetrical patterns on a grid. Each pattern had a 'subtle' difference. The group must investigate whether the pattern is symmetrical. Teacher chooses a number of a group member to explain the groups findings</p>	<p><b>Maths Outcome:</b></p> <p><i>I can illustrate the lines of symmetry for a range of 2D shapes and apply my understanding to create and complete symmetrical pictures and patterns.</i></p> <p><b>MTH 2-19a</b></p>	<p><b>Active Plan 2-26</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>BBC Bitesize</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b>Graffiti:</b> Using a large sheet of paper, the first group choose one colour of gummed shapes and begin to build a symmetrical pattern. Each group thereafter has to add to the pattern with a different colour. By the end you should have a large symmetrical pattern to display/discuss.</p>	<p><b>Activity 8:</b></p> <p><b>Token listening</b> Group discusses the application /relevance of angle measurement. Each pupil has three tokens. When they make a contribution they put a token in a box but they must summarise the previous speaker's contribution.</p>	<p><b>Activity 7:</b></p> <p><b>Flag Symmetry:</b> Provide pupils with art materials (card, pens, paint, crayons, art straws etc). Each group must design a group flag which has 4 lines of symmetry. Each group member must contribute to the flag.</p>	<p><b>Activity 6:</b></p> <p><b>Lines of Symmetry:</b> Provide children with large laminated shapes and white board pens. Pupils should use mirrors and draw on all the lines of symmetry they can see on the shape.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <u>Inside/Outside</u> Pupils on the inside as questions related to data presented in a graph. Outside pupils answer and then move on. All pupils require access to data.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <u>Corners: True/False</u> Teacher places True/False cards in the corners of the room. Pupils have access to data (e-beam) Teacher then ask true/False questions.</p>	<p><b>Activity 3: Choice activity</b> <u>ICT</u> Spreadsheets – ref – school programme</p>	<p><b>Activity 4: Choice activity</b> (T)</p>
<p><b>Activity 10: Group Collaborative Strategy</b> As a group pupils present information on the weather by collecting and analysing information from travel brochures. Pupils could use ICT.</p>	<p><b>Maths Outcome:</b> <b>Data &amp; Analysis</b> <i>Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading.</i>  <b>MNU 2-20a</b></p>	<p><i>I have carried out investigations and surveys, devising and using a variety of methods to gather information and have worked with others to collate, organise and communicate the results in an appropriate way.</i> <b>MNU 2-20b</b>  <b>Active Plan 2-27</b></p>	<p><b>Activity 5: ICT activity</b>  <b><u>Graph Maker</u></b></p>
<p><b>Activity 9: Group Collaborative Strategy</b> <u>Group Challenge</u> Pupils have to discuss and then devise a way of collecting and analysing (lunch info) New methods to be tried in class for one week in addition to normal</p>	<p><b>Activity 8:</b> <u>Data Collection</u> Group collects &amp; presents information on a variety of topics (teacher selects) Group could then feedback to class.</p>	<p><b>Activity 7:</b> <u>Matching Games</u> Set of cards with same information represented in different forms eg pie chart/bar graph/histogram. Find the pairs</p>	<p><b>Activity 6:</b> (T)</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b></p> <p><b>Graffiti</b> The pupils are sorted into teams and allocated a station in the class. Each station will have a different table of survey results supplied by the teacher. The children will find the best way to display the results. They then rotate round each station but are not allowed to display the results.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b></p> <p><b>Corners-</b> The teacher displays 4 different forms of showing results (e.g. pie chart, bar graph, trend graph etc) around each corner in the class. He/she displays graphs and asks them to go to correct name. Extend this by showing survey results and asking them to go to most effective way of displaying results, justify why.</p>	<p><b>Activity 3: Choice activity</b></p> <p>Create your own T.V. Timetable. Using magazines and newspapers, the pupils will create their own TV timetable. They will devise questions on their finished timetable for another group to answer.</p>	<p><b>Activity 4: Choice activity</b></p> <p>Create your own Bus Company and Schedule: Using magazines and newspapers, the pupils will create their own bus schedule. They will devise questions on their finished timetable for another group to answer.</p>
<p><b>Activity 10: Group Collaborative Strategy</b></p> <p><b>Numbered Heads Together:</b> Each pupil is given a number. They are shown a graph and a set of statements, e.g. over 1/10 of pupils take packed lunch. They must discuss if the statements are true or not. Teacher shouts a number and pupil writes the answer down.</p>	<p><b>Maths Outcome:</b></p> <p><i>I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs making effective use of technology.</i> <b>MTH 2-21a</b></p>	<p><b>Active Plan 2-28</b></p>	<p><b>Activity 5: ICT activity</b></p> <p>Using Information Magic the children will carry out a survey of results in class on eye/hair colour etc. They can then use these results to convert into different graphs and charts. The children can then devise questions for another group to answer e.g. what fraction of the class have blue eyes?</p>
<p><b>Activity 9: Group Collaborative Strategy</b></p> <p><b>Jigsaw-</b> Children are split into teams and are given a method of displaying results to investigate e.g. pie charts, venn diagrams etc. They must then work as a team in order to investigate the key features of this graph/chart in order to produce one and report back fully on this method to the class.</p>	<p><b>Activity 8:</b></p> <p><b>Circle the Sage:</b> Sages (pupils with specialized knowledge) go to a corner of the room with details about a particular subject. Other children rotate round the sages and take notes on what they are saying. They then return to their groups and display the information they have found in tables/charts etc. Pupil choice.</p>	<p><b>Activity 7:</b></p> <p>Using a set of survey results from a news article children need to plot results as quickly as possible noting appropriate scale, labelling etc.</p>	<p><b>Activity 6:</b></p> <p>Children are divided into teams and one member is asked to pick a card from a box. Each card will have a different topic e.g. hair colour, favourite bands etc. They then have to conduct a survey on this subject and display their results in 3 different ways. Extension: Children create data handling questions linked with their charts and graphs and pass to another team.</p>

<p><b>Activity 1: Whole class Collaborative Strategy</b> <b>.Corners</b> Teacher places two higher and two lower cards in the corners. Using a pack of cards pupils have to predict higher/lower and discuss methods of prediction.</p>	<p><b>Activity 2: Whole class Collaborative Strategy</b> <b><u>Inside/Outside</u></b> Pupils on the inside each require a number fan. They select a number 0-9 and the outside pupil has to predict the answer. This should be repeated 20 times.</p>	<p><b>Activity 3: Choice activity</b> Group given a pack of cards and use them to play 'Play your card right' by predicting whether the next card would be higher or lower.</p>	<p><b>Activity 4: Choice activity</b> <b>(T)</b></p>
<p><b>Activity 10: Group Collaborative Strategy</b> <b><u>Show Down</u></b> All pupils have a whiteboard. Quiz Master writes a number on the board. Everyone else records a number trying to predict what has been written down by the Quiz Master.</p>	<p><b>Maths Outcome:</b> <i>I can conduct simple experiments involving chance and communicate my predictions and findings using vocabulary of probability.</i>  <b>MNU 2-22a</b></p>	<p><b>Active Plan 2-29</b></p>	<p><b>Activity 5: ICT activity</b> <b><u>Maths Games</u></b> Desk top – Problem Solving - Disguise Combos, Find One More.</p>
<p><b>Activity 9: Group Collaborative Strategy</b> <b><u>.Think Ball</u></b> Teacher places a range of colours around think ball. Pupils predict which colour they will land on. Teacher can put more of one colour &amp; pupils can discuss.</p>	<p><b>Activity 8:</b> <b><u>Feely Bag</u></b> A range of numbers from 1-20 (or shape) placed inside and pupils have to predict what will be drawn out. Pupils should vary number of items in the Feely Bag and discuss impact on probabilities.</p>	<p><b>Activity 7:</b> The group are given a dice and have to predict what the next throw will be. As a group they should work out a way to record the results.</p>	<p><b>Activity 6:</b> <b>(T)</b></p>

