

# Nutty Maths!

## Scottish Curriculum for Excellence Links

### Early

Estimation	<b>MNU 0-01a:</b> I am developing a sense of size and amount by observing, using and communicating with others about things in the world around me.
Learn with Leaves	<b>MTH 0-13a:</b> I have spotted and explored patterns in my own and the wider environment and can copy and continue these and create my own patterns. <b>MTH 0-16a:</b> I enjoy investigating objects and shapes and can sort, describe and be creative with them. <b>MTH 0-19a:</b> I have had fun creating a range of symmetrical pictures and patterns using a range of media <b>MNU 0-20b:</b> I can match objects and sort using my own and others' criteria, sharing my ideas with others.
Treasure Hunt	<b>MTH 0-17a:</b> In movement, games and using technology I can use simple directions and describe positions.
Measuring and Sharing	<b>MNU 0-07a:</b> I can share out a group of items by making smaller groups and can split a whole object into smaller parts. <b>MNU 0-11a:</b> I have experimented with everyday items as units of measure to investigate and compare sizes and amounts in my environment, sharing my findings with others.
Minibeasting	<b>MNU 0-20a:</b> I can collect objects and ask questions to gather information, organising and displaying my findings in different ways. <b>MNU 0-20b:</b> I can match objects and sort using my own and others' criteria, sharing my ideas with others.

### First

Estimation	<b>MNU 1-01a:</b> I can share ideas with others to develop ways of estimating the answer of a calculation or problem, work out the actual answer, then check my solution by comparing it with the estimate <b>MNU 1-11a:</b> I can estimate how long or heavy an object is, or what amount it holds, using everyday things as a guide, then measure or weigh it using appropriate instruments and units.
Learn with Leaves	<b>MTH 1-13a:</b> I can continue and devise more involved repeating patterns or designs, using a variety of media. <b>MTH 1-13b:</b> Through exploring number patterns, I can recognise and continue simple number sequences and can explain the rule I have applied. <b>MNU1-03a:</b> I can use addition, subtraction, multiplication and division when solving problems, making best use of the mental strategies and written skills I have developed.
Maps and Directions	<b>MTH 1-17a:</b> I can describe, follow and record routes and journeys using signs, words and angles associated with direction and turning. <b>MTH 1-18a:</b> I have developed an awareness of where grid reference systems are used in everyday contexts and can use them to locate and describe position.
Measuring and Sharing	<b>MNU 1-07a:</b> Having explored fractions by taking part in practical activities, I can show my understanding of: How a single item can be shared equally; The notation and vocabulary associated with fractions; Where simple fractions lie on the number line. <b>MNU 1-07b:</b> Through exploring how groups of items can be shared equally, I can find a fraction of an amount by applying my knowledge of division. <b>MTH 1-07c:</b> Through taking part in practical activities including use of pictorial representations, I can demonstrate my understanding of simple fractions which are equivalent.
Minibeasting	<b>MNU 1-20b:</b> I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others' criteria. <b>MTH 1-21a:</b> Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams using simple labelling and scale.
Tremendous Trees	<b>MNU 1-20b:</b> I have used a range of ways to collect information and can sort it in a logical, organised and imaginative way using my own and others' criteria.

Canopy  
Calculations

**MTH 1-21a:** Using technology and other methods, I can display data simply, clearly and accurately by creating tables, charts and diagrams using simple labelling and scale.

**MNU 1-11b:** I can estimate the area of a shape by counting squares or other methods.

**MNU 1-01a:** I can share ideas with others to develop ways of estimating the answer of a calculation or problem, work out the actual answer, then check my solution by comparing it with the estimate.

**MNU 1-11b:** I can estimate the area of a shape by counting squares or other methods.

## Second

Learn with  
Leaves

**MTH 2-13a:** Having explored more complex number sequences, including well-known named patterns, I can explain the rule used to generate the sequence, and apply it to extend the pattern.

**MTH 2-17a:** I have investigated angles in the environment, and can discuss, describe and classify angles using appropriate mathematical vocabulary.

**MTH 2-17b:** I can accurately measure and draw angles using appropriate equipment, applying my skills to problems in context.

**MTH 2-19a:** 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.

Maps and  
Directions

**MTH 2-17c:** 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 and record directions, routes and journeys using appropriate vocabulary.

**MTH 2-17d:** Having investigated where, why and how scale is used and expressed, I can apply my understanding to interpret simple models, maps and plans.

Minibeasting

**MNU 2-20b:** 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.

**MTH 2-21a:** 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.

Tremendous  
Trees

**MNU 2-01a:** I can use my knowledge of rounding to routinely estimate the answer to a problem then, after calculating, decide if my answer is reasonable, sharing my solution with others.

**MNU 2-11a:** I can use my knowledge of the sizes of familiar objects or places to assist me when making an estimate of measure.

**MNU 2-11b:** I can use the common units of measure, convert between related units of the metric system and carry out calculations when solving problems.

**MNU 2-11c:** I can explain how different methods can be used to find the perimeter and area of a simple 2D shape or volume of a simple 2D object.

Canopy  
Calculations

**MNU 2-01a:** I can use my knowledge of rounding to routinely estimate the answer to a problem then, after calculating, decide if my answer is reasonable, sharing my solution with others.

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**MNU 2-11b:** I can use the common units of measure, convert between related units of the metric system and carry out calculations when solving problems.

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Nutty Maths  
Problems

**MNU 2-02a:** I have extended the range of whole numbers I can work with and having explored how decimal fractions are constructed, can explain the link between a digit, its place and its value.

**MNU 2-03a:** 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.

**MTH 2-03c:** Having explored the need for rules for the order of operations in number calculations, I can apply them correctly when solving simple problems.

**MNU 2-07a:** I have investigated the everyday contexts in which simple fractions, percentages or decimal fractions are used and can carry out the necessary calculations to solve related problems.

**MNU 2-07b:** I can show the equivalent forms of simple fractions, decimal fractions and percentages and can choose my preferred form when solving a problem, explaining my choice of method.

Data and  
Graphs

**MTH 2-17a:** I have investigated angles in the environment, and can discuss, describe and classify angles using appropriate mathematical vocabulary.

**MNU 2-20b:** 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.

**MTH 2-21a:** 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.

## Third & Fourth

### Symmetry in Nature

**MTH 3-19a:** 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.

**MTH 4-19a:** Having investigated patterns in the environment, I can use appropriate mathematical vocabulary to discuss the rotational properties of shapes, pictures and patterns and can apply my understanding when completing or creating designs.

### Maps and Directions

**MTH 3-17b:** Having investigated navigation in the world, I can apply my understanding of bearings and scale to interpret maps and plans and create accurate plans, and scale drawings of routes and journeys.

### Tremendous Trees

**MNU 3-03a:** I can use a variety of methods to solve problems in familiar contexts, clearly communicating my processes and solutions.

**MNU 3-11a:** I can solve practical problems by applying my knowledge of measure, choosing the appropriate units and degree of accuracy for the task and using a formula to calculate area or volume when required.

**MTH 3-11b:** Having investigated different routes to a solution, I can find the area of compound 2D shapes and the volume of compound 3D objects, applying my knowledge to solve practical problems.

**MNU 4-03a:** Having recognised similarities between new problems and problems I have solved before, I can carry out the necessary calculations to solve problems set in unfamiliar contexts.

**MNU 4-11a:** I can apply my knowledge and understanding of measure to everyday problems and tasks and appreciate the practical importance of accuracy when making calculations.

**MTH 4-16b:** Having investigated relationships between the radius, diameter, circumference and area of a circle, I can apply my knowledge to solve related problems.

**MTH 4-17b:** I can apply my understanding of the properties of similar figures to solve problems involving length and area.

### Canopy Calculations

**MNU 3-11a:** I can solve practical problems by applying my knowledge of measure, choosing the appropriate units and degree of accuracy for the task and using a formula to calculate area or volume when required.

**MTH 3-11b:** Having investigated different routes to a solution, I can find the area of compound 2D shapes and the volume of compound 3D objects, applying my knowledge to solve practical problems.

**MNU 4-03a:** Having recognised similarities between new problems and problems I have solved before, I can carry out the necessary calculations to solve problems set in unfamiliar contexts.

**MNU 4-11a:** I can apply my knowledge and understanding of measure to everyday problems and tasks and appreciate the practical importance of accuracy when making calculations.

**MTH 4-16b:** Having investigated relationships between the radius, diameter, circumference and area of a circle, I can apply my knowledge to solve related problems.

### Data and Graphs

**MTH 3-21a:** 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.

**MNU 4-20a:** I can evaluate and interpret raw and graphical data using a variety of methods, comment on relationships I observe within the data and communicate my findings to others.

**MTH 4-21a:** I can select appropriately from a wide range of tables, charts, diagrams and graphs when displaying discrete, continuous or grouped data, clearly communicating the significant features of the data.

Trees for Life

Rewilding the Scottish Highlands  
Ath-fhiadhachadh na Gàidhealtachd