Mathletics

White Rose Maths (WRM) Spring Scheme of Learning, 2018

Alignment with Mathletics

Year 2 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place value			Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division	
Spring	Number: Multiplication and Division		Statistics	Geometry: Properties of Shape				Number: Fractions			Measurement: length and height	Consolidation
Summer	Position and direction			Problem solving and efficient methods		Measurement: Time		Measurement: Mass, Capacity and Temperature			Investigations	

This alignment document has been based on the White Rose Maths (WRM) scheme of learning available on the TES website. It contains the alignment information for the Spring Scheme of Learning.

White Rose Maths

Year 2

Mathletics

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

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Contents

Examples of alignment to Mathletics

Purpose:

The aim of this document is to support Mathletics teachers, who use the WRM schemes of learning, to make full use of the resources available within Mathletics. Whenever possible, activities, pages from the eBooks or learning experiences on Rainforest Maths have been matched to each of the small steps on the corresponding WRM scheme of learning.

In Mathletics, many eBooks are available in the student interface, however all eBooks are available to teachers through the teacher console. These topic-based eBooks contain practice and fluency exercises, along with application questions and games. Only a small selection of the relevant pages is contained in this document.

Links to Rainforest Maths, which can be found in the 'Play' area in the Mathletics student interface, have also been included. This resource has engaging visuals which work well on interactive whiteboards and gives pupils further opportunities to practise their learning online.

Course selection:
A specific Mathletics course has been created in alignment with the WRM scheme of learning. You may wish to set this course for your class/groups.

England Yr 02 WRM Autumn and Spring Aligned

Data-Driven Teaching and Learning

Differentiation

Feedback and Reflection

Student Growth

Blended Learning

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Alignment with Mathletics

Examples of alignment to Mathletics

Block 1 (Weeks 1-2) Number: Multiplication and Division

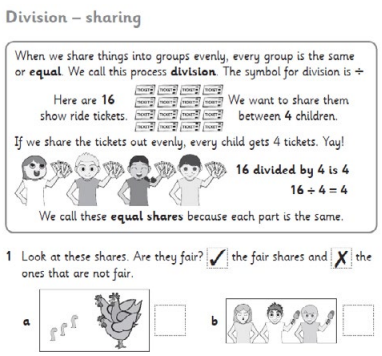
National Curriculum Objectives	WRM Small Steps
▸ Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. ▸ Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. ▸ Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. ▸ Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	▸ Make Equal Groups — Sharing ▸ Make Equal Groups — Grouping ▸ Divide by 2 ▸ Odd & Even Numbers ▸ Divide by 5 ▸ Divide by 10

Small step: Make Equal Groups — Sharing

Topic: Multiply and Divide

Activity: *Share the Treasure*

Pupils drag gold coins to the pirates to make equal shares and explore the concept of division.


Division – sharing

When we share things into groups evenly, every group is the same or **equal**. We call this process **division**. The symbol for division is ÷

Here are **16** show ride tickets. We want to share them between **4** children.

If we share the tickets out evenly, every child gets 4 tickets. Yay!

16 divided by 4 is 4

16 ÷ 4 = 4

We call these **equal shares** because each part is the same.

1 Look at these shares. Are they fair? ✓ the fair shares and ✗ the ones that are not fair.

a b

eBook, C series: Operations with Number, pages 107—109

Pupils explore the concept of sharing into equal groups to help them solve division problems.

On page 109 there is a collaborative practical task where pupils work with a partner to share out a number of objects to help them solve word problems. In addition to working practically, they are also asked to draw their answer.

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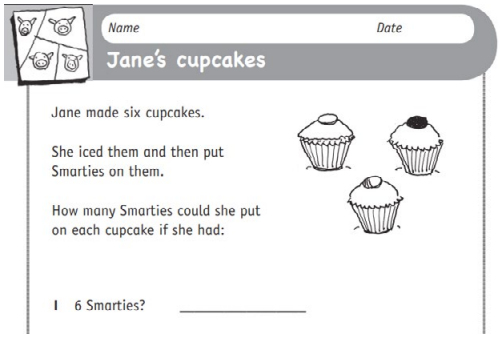
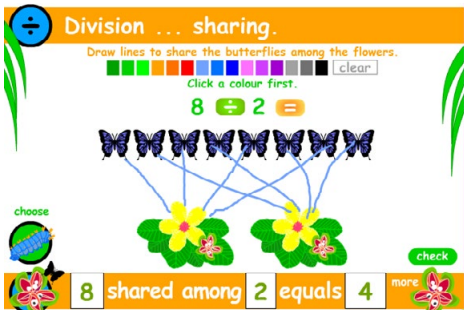


Problem Solving eBook, series: A, B, C page 15

Pupils draw to show how they would share different numbers of Smarties between 3 cupcakes.

The worksheet can be used to supplement similar practical activities.



Rainforest Maths — Level B — Division

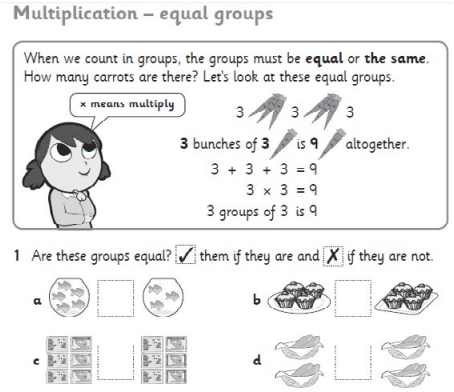
In this interactive task, pupils draw lines from the butterflies to share them equally between the flowers.

In the caterpillar activity, they drag and drop them in equal groups on the leaves.

Rainforest Maths — Level C — Division

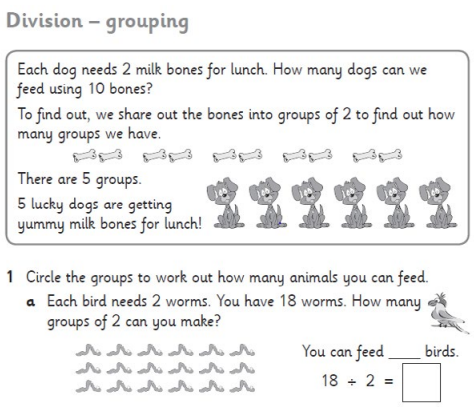
This activity further extends pupils understanding of sharing, with visuals showing beetles shared equally between dragons.

Small step: Make Equal Groups — Grouping



eBook, C series: Operations with Number, pages 81–84

Pupils identify groups that are equal and those that are not equal. Further activities involve creating equal groups to solve multiplication problems.



eBook, C series: Operations with Number, pages 110–111

Pupils use grouping as a strategy to solve division problems. The exercises on page 111 encourage pupils to use drawings to represent groups when solving division word problems.

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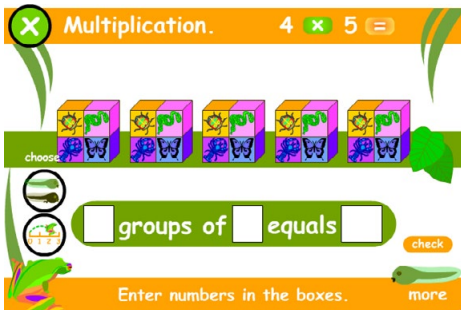


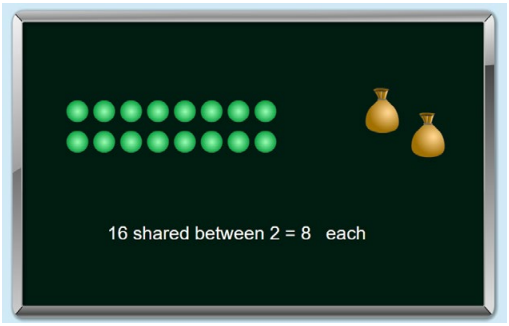
Rainforest Maths — Level B — Multiplication

Visuals of equal groups support pupils understanding of multiplication. Pupils identify the number of groups and how many are in each equal group before entering the total.

Rainforest Maths — Level C — Multiplication

This further activity helps to develop pupils understanding of making equal groups.

Small step: Divide by 2

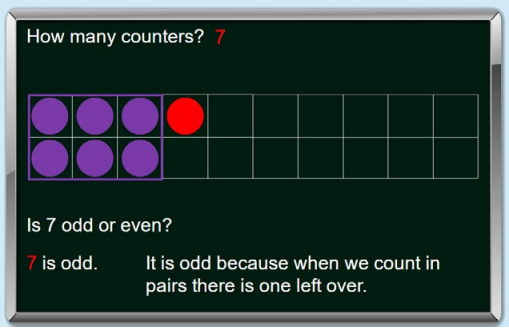


Topic: Multiply and Divide

Activity: *Dividing by Two*

Pupils practise dividing a set of objects (up to 20) into 2 groups, using images for support.

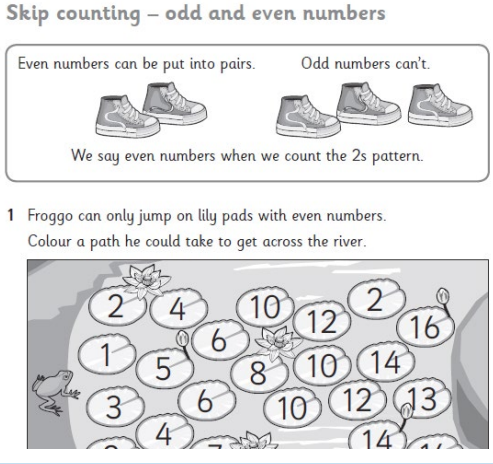
Small step: Odd & Even Numbers



Topic: Multiply and Divide

Activity: *Odd or Even*

Pupils are encouraged to count in groups of 2 to determine whether there is an odd or even number of counters.



eBook, C series: Numbers, pages 57—58

The concept of odd and even numbers is explained. Pupils complete exercises to identify odd and even numbers.

On page 58 is an activity to be completed with a partner, based on odd numbered houses on one side of the road and the even on the other side.

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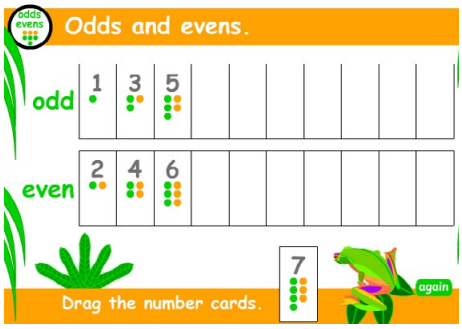
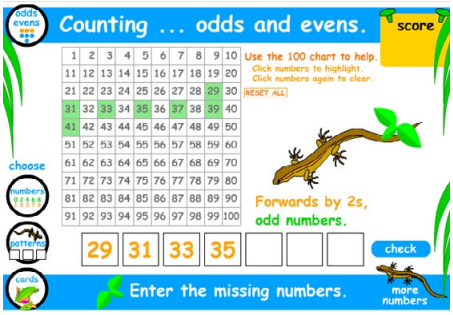
Alignment with Mathletics



Rainforest Maths — Level B — Algebra, Patterns

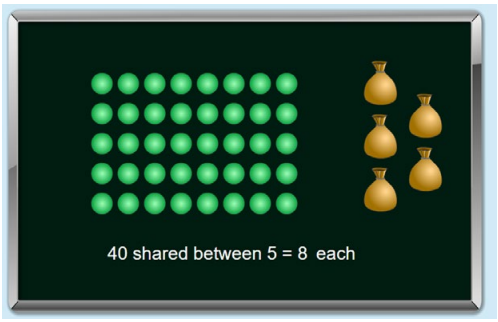
Pupils drag number cards in order, sorting them into odd and even numbers. The visuals use coloured dots which support their understanding of the concept of odd and even numbers.



Rainforest Maths — Level C — Algebra

Pupils highlight a series of numbers on the hundred square, showing the pattern created when counting in odd or even numbers.

Small step: Divide by 5

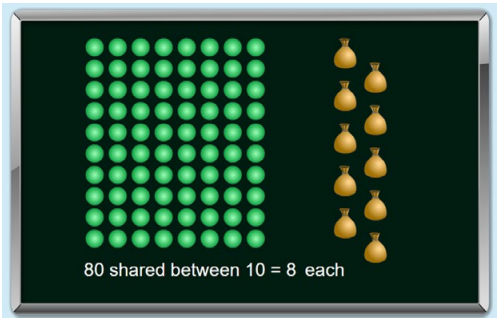


Topic: Multiply and Divide

Activity: *Dividing by Five*

Pupils practise dividing a set of objects (up to 50) into 5 groups, using images for support.

Small step: Divide by 10



Topic: Multiply and Divide

Activity: *Dividing Tens*

Pupils practise dividing a set of objects (up to 100) into 10 groups, using images for support

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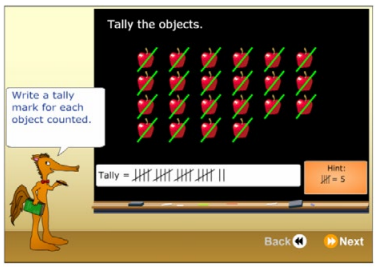
Alignment with Mathletics

Examples of alignment to Mathletics

Block 2 (Weeks 3-4) Statistics

National Curriculum Objectives	WRM Small Steps
▸ Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. ▸ Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. ▸ Ask and answer questions about totalling and comparing categorical data.	▸ Make Tally Charts ▸ Draw Pictograms (1–1) ▸ Interpret Pictograms (1–1) ▸ Draw Pictograms (2, 5 & 10) ▸ Interpret Pictograms (2, 5 & 10) ▸ Block Diagrams

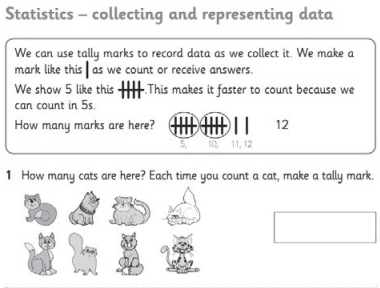
Small step: Make Tally Charts



Topic: Statistics

Activity: *Tallies*

Pupils count a set of objects and decide if the tally marks shown are correct or incorrect by choosing 'true' or 'false'.

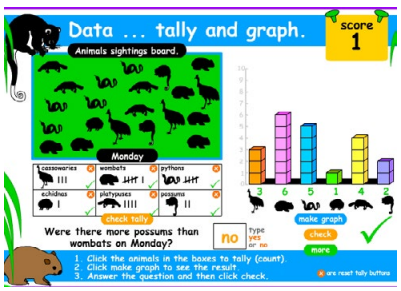


eBook, C series: Statistics, pages 5–8

The concept of creating a tally is explained and then pupils create their own tally to represent numbers of cats and dogs, as they count the illustrations.

On page 6 they work with a partner to collect information which they represent as a tally chart.

On page 7, they take information from a tally chart to create a block graph.



Rainforest Maths — Level C — Data

Pupils are presented with an animal sightings board from which they create a tally chart to record the number of times each animal is spotted. They can then see how a block graph is created. Finally, they use the information to answer a question.

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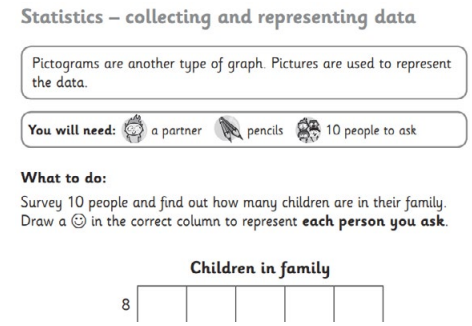
Alignment with Mathletics

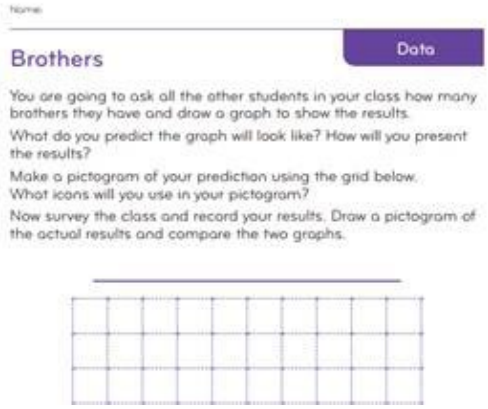
Small step: Draw Pictograms (1–1)



eBook, C series: Statistics, pages 10–11

Pupils work with a partner to collect data which they represent as a pictogram.

On page 11, they use the pictogram they have created to answer questions.

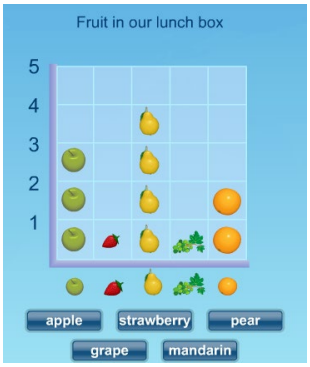


Rich Learning Tasks, C series: Problem Solving and Reasoning, page 21

In this open-ended activity, pupils are asked to predict what a pictogram would look like if they had the data for the number of brothers each child in their class has.

Pupils decide how they will represent the results – giving the possibility for some students to select a picture to represent more than one.

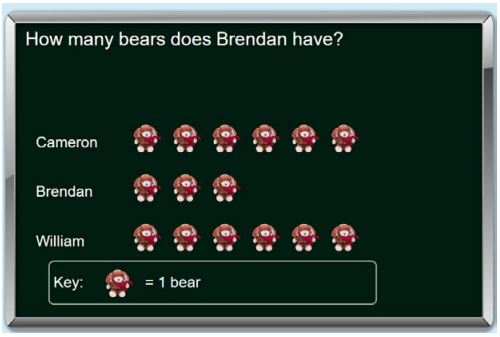
Pupils then gather the data and create the actual pictogram, which they compare with the one they created as a prediction.



Concept Search — Pictograph

This visual can be presented full screen on an interactive whiteboard and can be used to demonstrate how to create a pictogram.

Small step: Interpret Pictograms (1–1)



Topic: Statistics

Activity: *Picture Graphs: single-unit scale*

Pupils interpret a pictogram with a key (single-unit scale) to record the number of objects a given person has.

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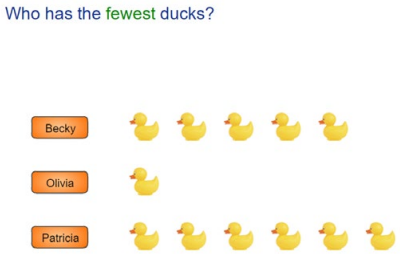
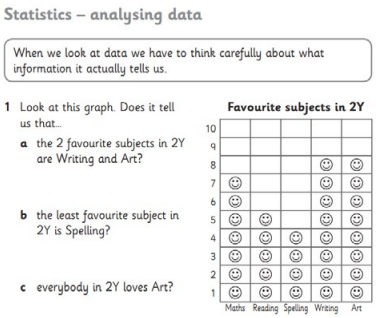


Topic: Statistics

Activity: *Pictograms: Who has the goods?*

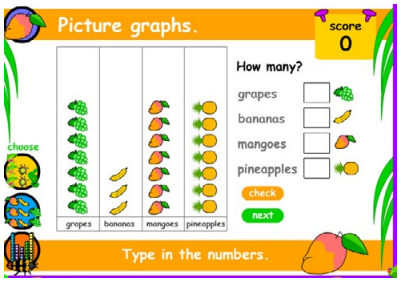
Pupils interpret a pictogram to identify who has the most, fewest or an exact number of objects.



eBook, C series: Statistics, pages 12–13

Pupils use information presented as pictograms to answer questions.

Pupils are required to think about a statement made based on the pictogram and to give their opinion. They are also asked to explain their thinking.

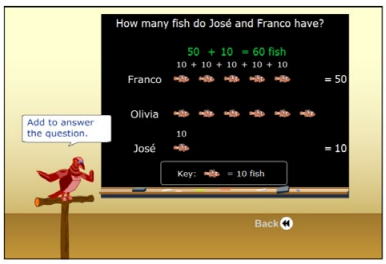


Rainforest Maths — Level B — Data

Pupils can select to view pictograms of a variety of animals or fruit. Using the information on the pictogram, they identify how many of each type of animal or fruit has been represented in the pictogram.

Using the pictogram on an interactive whiteboard also enables teachers to develop pupils' understanding by extending the questioning.

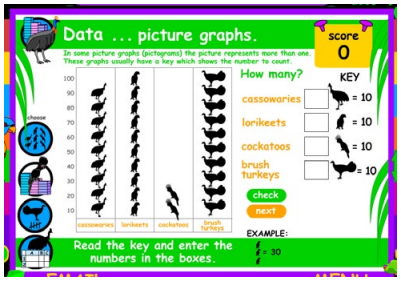
Small step: Interpret Pictograms (2, 5 & 10)



Topic: Statistics

Activity: *Pictographs*

Pupils read and interpret a pictogram where 1 symbol represents 10 items. This activity is adaptive and harder questions include comparison questions.



Rainforest Maths — Level E — Data ... picture graphs

Although this is a Level E task, teachers can use this to demonstrate the interpretation of a pictogram where 1 symbol represents 10 items.

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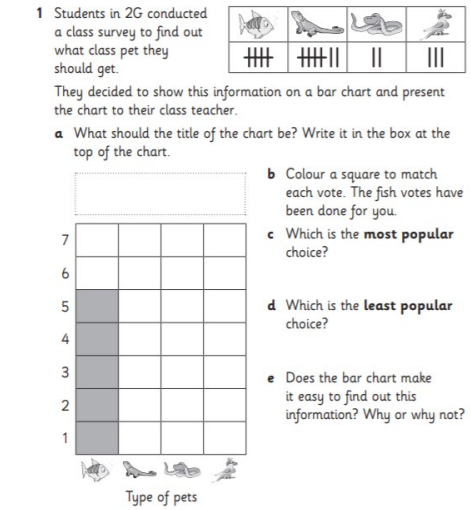
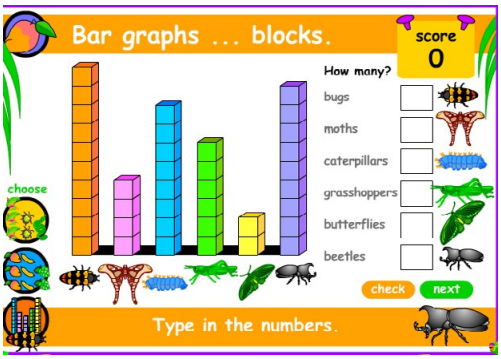
Small step: Block Diagrams



eBook, C series: Statistics, pages 7–9

Pupils colour in squares on a simple bar chart (block diagram) to represent data shown in a tally chart and answer questions related to the display.



Rainforest Maths — Level B — Data

Pupils record the number of sightings for each creature using block graphs.

Using the block graph on an interactive whiteboard also enables teachers to develop pupils' understanding by extending the questioning.

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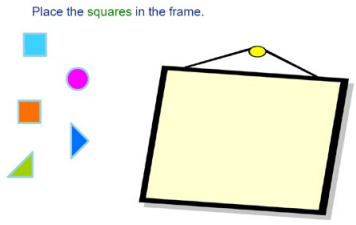
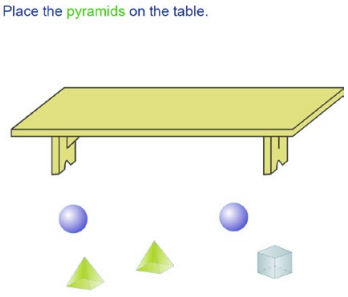
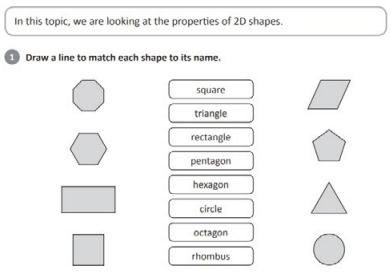
Examples of alignment to Mathletics

Block 3 (Weeks 5–7) Geometry: Properties of Shape

National Curriculum Objectives	WRM Small Steps
▸ Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. ▸ Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. ▸ Identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]. ▸ Compare and sort common 2-D and 3-D shapes and everyday objects.	▸ Recognise 2D and 3D Shapes ▸ Count Sides on 2D Shapes ▸ Count Vertices on 2D Shapes ▸ Draw 2D Shapes ▸ Lines of Symmetry ▸ Sort 2D Shapes ▸ Make Patterns with 2D Shapes ▸ Count Faces on 3D Shapes ▸ Count Edges on 3D Shapes ▸ Count Vertices on 3D Shapes ▸ Sort 3D Shapes ▸ Make Patterns with 3D Shapes

Small step: Recognise 2D and 3D Shapes	
	Topic: Geometry Activity: *Collect Simple Shapes* In this activity, pupils recognise and collect circles, squares, rectangles and triangles.
	Topic: Geometry Activity: *Collect the Objects 1* In this activity, pupils recognise and collect spheres, cubes, cylinders, pyramids and cones.
	eBook, D series: Geometry, page 9 This exercise asks pupils match 2D shapes to their corresponding names.

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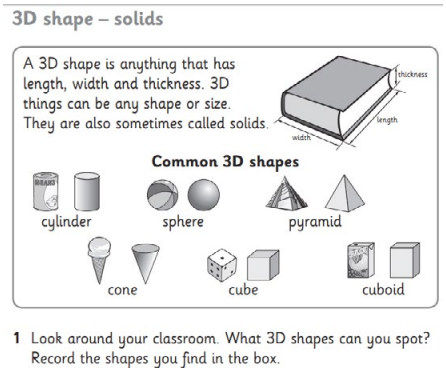
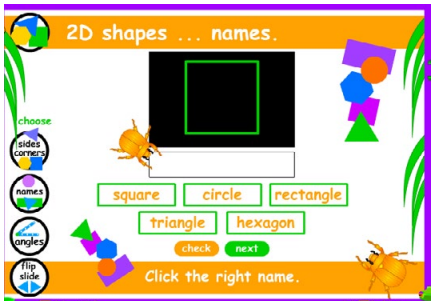
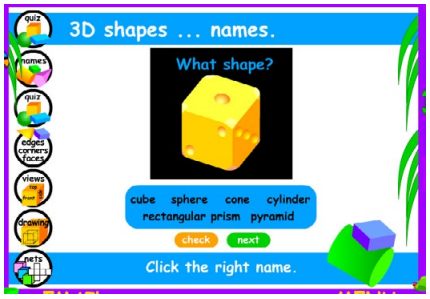
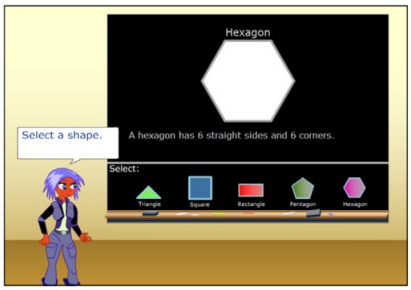
	**eBook, B series: Geometry, pages 17–19** Pupils recognise 3D shapes and matching objects. They learn the terms 'cylinder', 'sphere', 'pyramid', 'cone', 'cube' and 'cuboid'. They find objects in the classroom to match 3D shapes. A paired activity on pages 18 and 19 involves matching pictures of objects and shapes to the 3D shape names.
	**Rainforest Maths — Level B — 2D Shapes** Pupils select the correct name to match the picture of a 2D shape.
	**Rainforest Maths — Level C — 3D Shapes** Pupils select the correct name to match a picture of a 3D shape or object.
	**Concept Search — 2D Shapes** Concept Search provides a definition of what a 2D shape is and a slide show identifying 2D shapes. There are 2 levels of difficulty available. The first level names each shape and shows an example. The second level sorts 2D shapes into those with straight or curved edges and provides a description along with the name.
	**Concept Search — 3D Shapes** Concept Search provides a definition of a 3D shape and provides a slide show of 3D shapes, which rotate so that pupils can get a sense of what 3D means. It names the shapes and describes their features.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

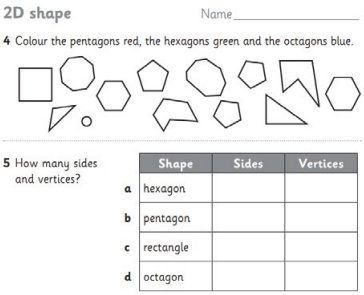
Small step: Count Sides on 2D Shapes
Small step: Count Vertices on 2D Shapes



Topic: Geometry

Activity: *Count Sides and Corners*

Although this activity uses the term 'corners' rather than 'vertices' it does allow pupils to practise identifying and counting the number of sides and vertices on common 2D shapes.


2D shape Name

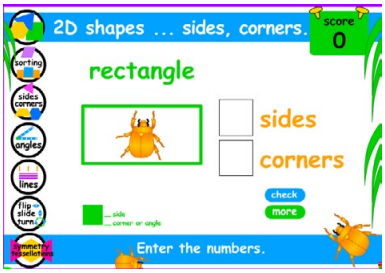
4 Colour the pentagons red, the hexagons green and the octagons blue.

5 How many sides and vertices?

	Shape	Sides	Vertices
a	hexagon		
b	pentagon		
c	rectangle		
d	octagon		

eBook, C series: Geometry Teacher Book, page 5

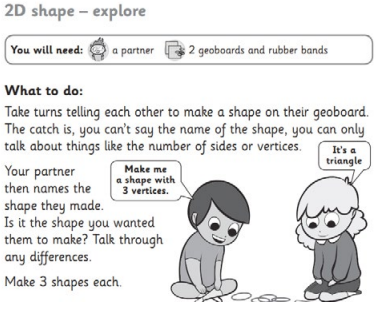
In this assessment activity, pupils identify a range of 2D shapes and then complete a table listing the number of sides and vertices each shape has.



Rainforest Maths — Level C — 2D Shapes

Pupils identify the number of sides and corners (vertices) for a range of 2D shapes.

Small step: Draw 2D Shapes


2D shape – explore

You will need: a partner, 2 geoboards and rubber bands

What to do:

Take turns telling each other to make a shape on their geoboard. The catch is, you can't say the name of the shape, you can only talk about things like the number of sides or vertices.

Your partner then names the shape they made. Is it the shape you wanted them to make? Talk through any differences.

Make 3 shapes each.

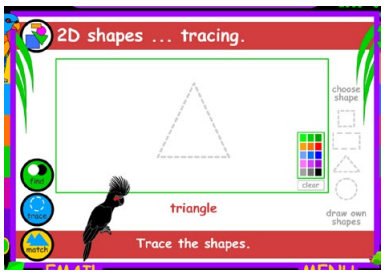
Make me a shape with 3 vertices.

It's a triangle

eBook, B series: Geometry, page 10

In this paired activity, pupils give each other instructions to create a shape on a geoboard, but without naming the shape. Their partner creates the shape and names it.

This activity can be tweaked so that shapes are drawn rather than made on geoboards.



Rainforest Maths — Level A — 2D Shapes

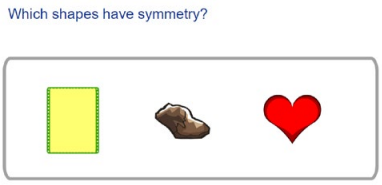
Pupils select a triangle, rectangle, square or circle to trace or they can choose to draw their own shapes.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

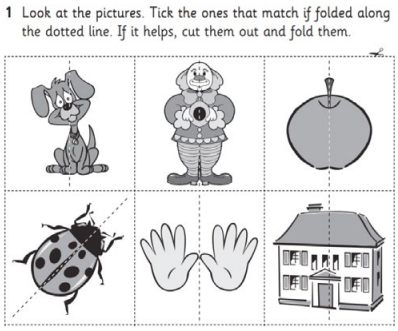
Small step: Lines of Symmetry



Topic: Geometry

Activity: *Symmetry*

Pupils select the shapes that have symmetry. The support demonstrates lines of symmetry and explains that both sides of a symmetrical object are the same shape and size but face the opposite way.



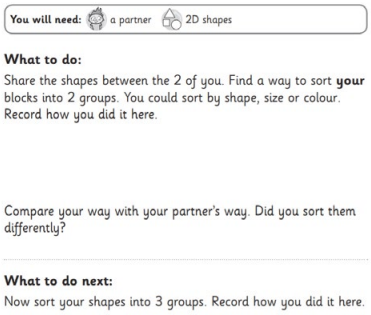
eBook, B series: Geometry, pages 15–16

The concept of symmetry is explained and the exercises challenge pupils to identify the pictures that have symmetry. On page 16 pupils are asked to cut out and fold a square to find the different ways it can be folded and still have both sides the same.

Concept Search — Symmetry

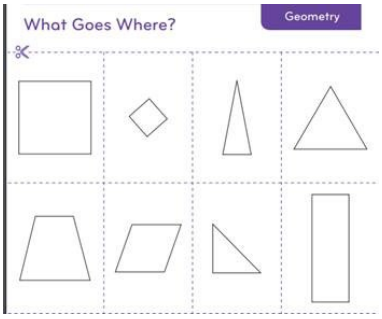
Concept Search provides a concise definition of line and rotational symmetry. The slide show can be enlarged and used on an interactive whiteboard to show examples of symmetrical images.

Small step: Sort 2D Shapes



eBook, B series: Geometry, page 11

Pupils explore sorting 2D shapes using shape, size or colour. They are encouraged to explore the various ways that shapes can be sorted and compare them with a partner.



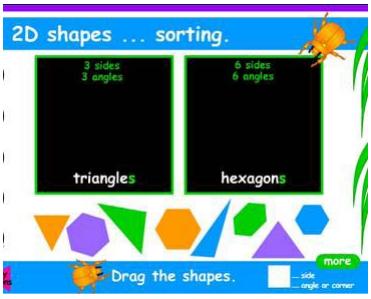
Rich Learning Tasks, C series: Problem Solving and Reasoning, pages 10—11

Pupils sort a range of 2D shapes into a Venn diagram. They explain their own reasons for how they have sorted the shapes and are encouraged to repeat the activity, finding different ways to sort the shapes.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

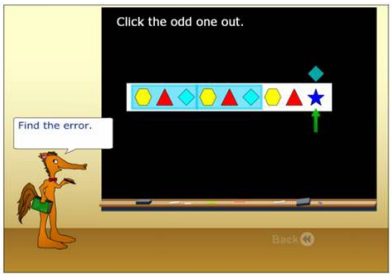
Alignment with Mathletics



Rainforest Maths — Level C— Shape ... sorting

Pupils drag the 2D shapes to sort them into 2 categories.

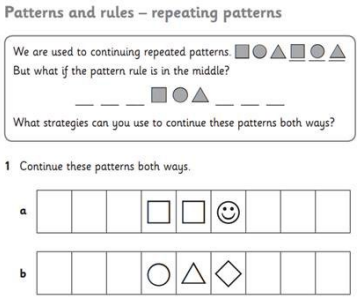
Small step: Make Patterns with 2D Shapes



Topic: Geometry

Activity: *Pattern Error*

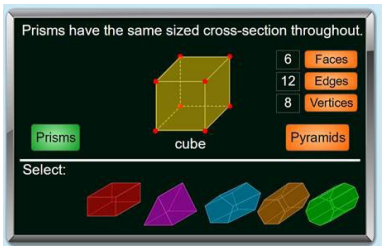
Pupils must first identify the pattern made with 2D shapes and then select the odd one out.



eBook, C series: Geometry, page 32

Pupils explore creating, following and identifying repeated patterns. Some of the patterns use 2D shapes and the exercises can be extended with pupils creating their own patterns using 2D shapes.

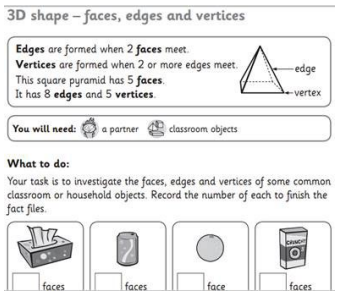
Small step: Count Faces on 3D Shapes
Small step: Count Edges on 3D Shapes
Small step: Count Vertices on 3D Shapes



Topic: Geometry

Activity: *Faces, Edges and Vertices*

Pupils select a 3D shape from a given number of faces, edges or vertices. In the support area, pupils can select from faces, edges or vertices to see an animated count of each property.



eBook, C series: Geometry, page 15

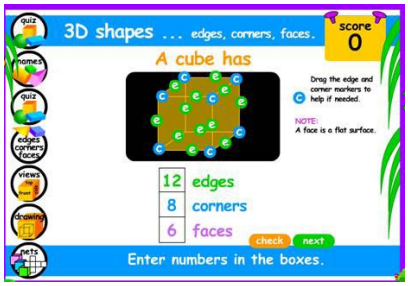
The terms 'faces', 'edges' and 'vertices' are explained.

The activity, while written as a paired activity, also works as an individual activity. Pupils explore a range of 3D objects and identify the number of faces, edges and vertices. Pupils can be asked to name the 3D shape they have described.

Year 2 White Rose Maths (WRM)

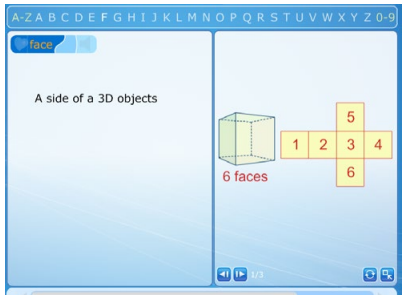
Spring Scheme of Learning, 2018

Alignment with Mathletics



Rainforest Maths – Level C – 3D Shapes

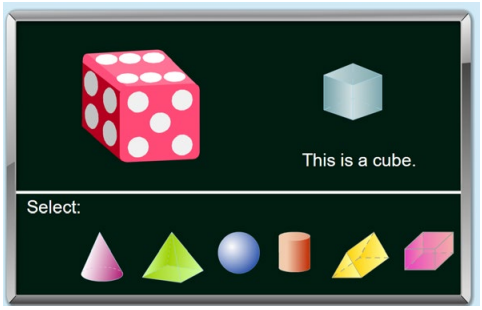
Pupils move markers to label the edges and corners (vertices). They enter the number of edges, corners and faces.



Concept Search – face, edge or vertex

Pupils can search under 'face', 'edge' or 'vertex' to get an explanation of the concepts. A diagram of each property is shown for both 2D and 3D shapes.

Small step: Sort 3D Shapes



Topic: Geometry – Something Easier

Activity: *Match the Object*

This activity is a great introduction to sorting real-life 3D objects by their 3D shape name. Pupils identify the matching 3D object for a real-life object based on the shape of the faces.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

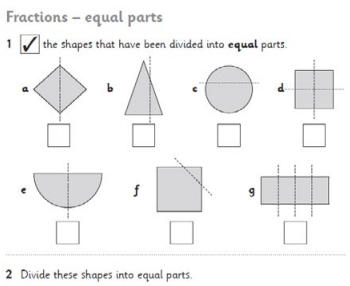
Alignment with Mathletics

Examples of alignment to Mathletics

Block 4 (Weeks 8–10) Number: Fractions

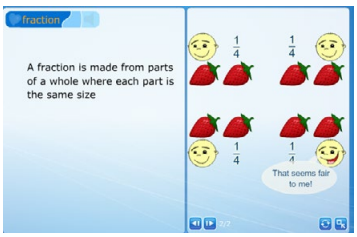
National Curriculum Objectives	WRM Small Steps
▸ Recognise, find, name and write fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of length, shape, set of objects or quantity. ▸ Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	▸ Make Equal Parts ▸ Recognise a Half ▸ Find a Half ▸ Recognise a Quarter ▸ Find a Quarter ▸ Recognise a Third ▸ Find a Third ▸ Unit Fractions ▸ Non-Unit Fractions ▸ Equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ ▸ Find Three Quarters ▸ Count in Fractions

Small step: Make Equal Parts



eBook, C series: Numbers, page 59

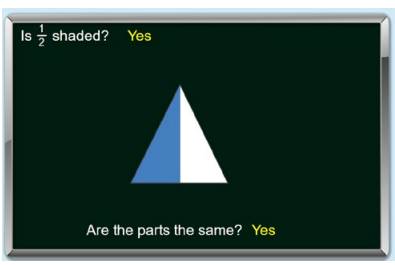
Pupils identify if a shape has been divided into equal parts. Additional activities enable pupils to show how they would divide shapes into equal parts and how they would share a quantity of teddies between 2 children, ensuring each has a fair share.



Concept Search — Fraction

The term fraction is explained and modelled. First a pizza is shared between 2, cutting it into 2 equal pieces and then shared between 4, cutting it into 4 equal pieces. Sharing 8 strawberries equally between 2, and then 4 people, is used to model halves and quarters.

Small step: Recognise a Half



Topic: Fractions

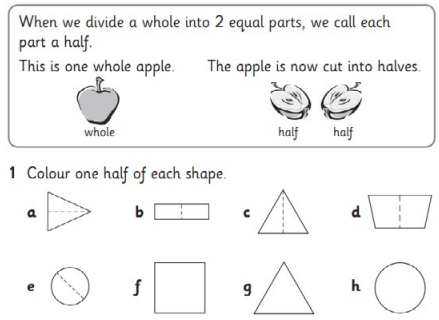
Activity: *Is it Half?*

Pupils are asked to identify if a shape has been split equally into halves. The support area highlights the 2 parts of the shape and indicates whether the parts are the same and therefore whether the 2 parts are halves.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

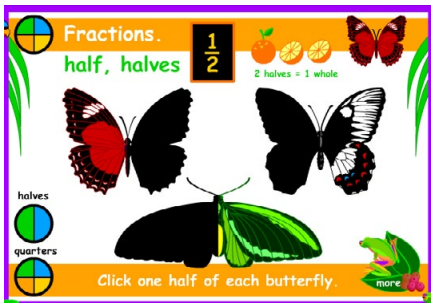
Alignment with Mathletics



eBook, B series: Numbers, pages 81–83

Pupils complete a range of exercises to identify and show $\frac{1}{2}$ of a shape.

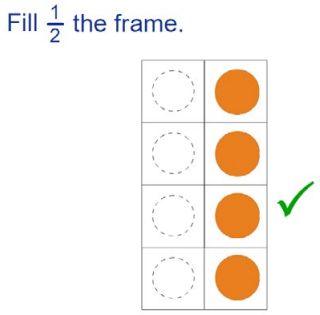
On page 83 is a practical exercise where pupils fold or colour in to show $\frac{1}{2}$ of a square. They must think of different ways of finding $\frac{1}{2}$ of the square.



Rainforest Maths — Level B — Fractions

Pupils click on one half of the butterfly. The activity progresses by showing pupils some detail on the butterflies' wings. They then must select the butterfly where half has been shown.

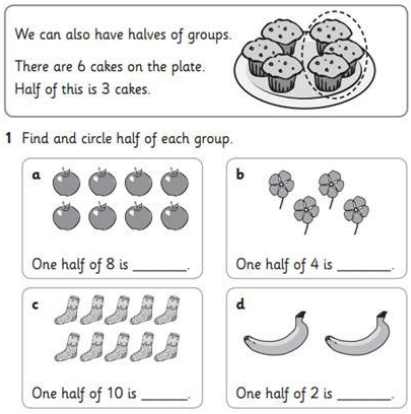
Small step: Find a Half



Topic: Fractions

Activity: *Halves*

This activity begins by having pupils click to shade half of a shape and progresses to having pupils click to fill half of the spaces on a ten frame.



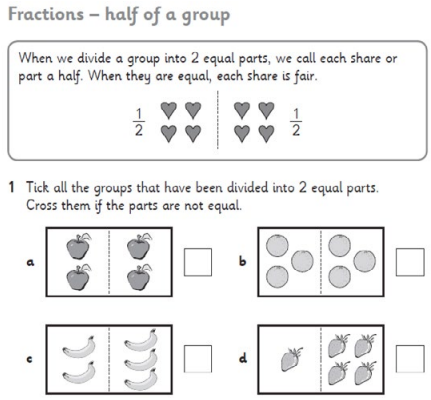
eBook, B series: Numbers, pages 84–86

Pupils are introduced to halves of groups and are asked to circle or create halves of groups. They are also asked to complete sentences using the language of fractions; 'One half of 4 is _____'.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

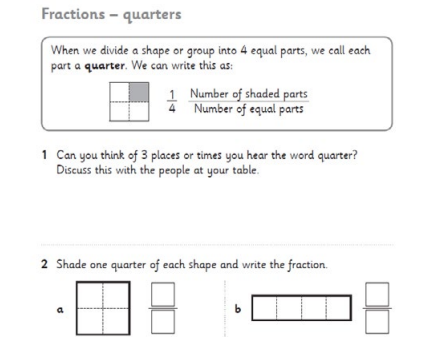


eBook, C series: Numbers, page 61

Pupils identify if a group of objects has been correctly halved by dividing them into 2 equal parts.

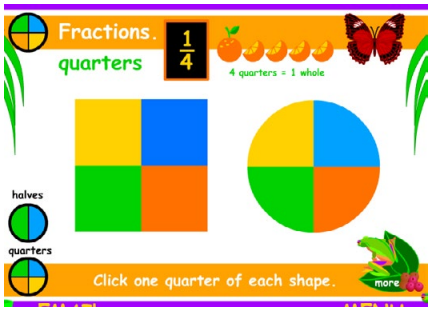
On page 62 is a game played with a partner, where pupils share groups of counters into 2 equal piles, to find half of a number.

Small step: Recognise a Quarter



eBook, C series: Numbers, pages 63–66

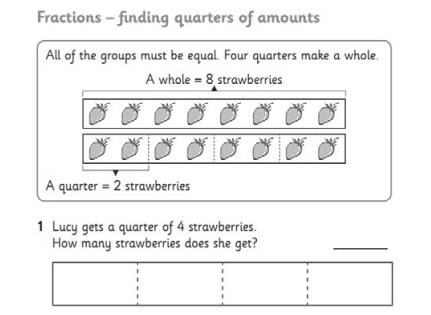
Pupils are introduced to the concept of quarters and are asked to identify and represent quarters of shapes. On page 65, pupils are challenged to divide 4 squares into quarters in different ways.



Rainforest Maths — Level B — Fractions

Pupils click on 1 quarter of the shape. The activity then shows shapes with different fractions shaded and pupils must click on the shape with 1 quarter shaded.

Small step: Find a Quarter



eBook, B series: Numbers, pages 89–90

Following an explanation of how to find a quarter of an amount, pupils find a quarter of amounts up to 20.

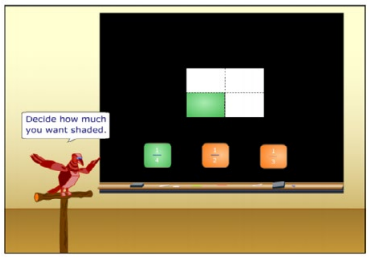
The visuals in these exercises can also support the understanding of using a bar model to work out fractions of an amount.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

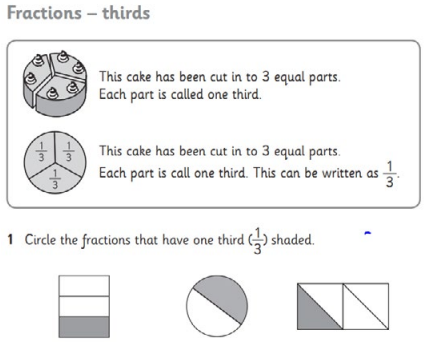
Small step: Recognise a Third



Topic: Fractions

Activity: *Shade Fractions*

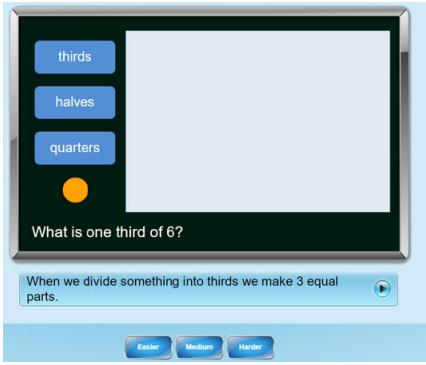
Pupils select the fraction ($\frac{1}{2}$, $\frac{1}{4}$ or $\frac{1}{3}$) that represents the shaded parts of a shape.



eBook, C series: Numbers, page 76

Pupils are shown that an object must be cut into 3 equal parts to create thirds. Pupils identify shapes which have one third shaded.

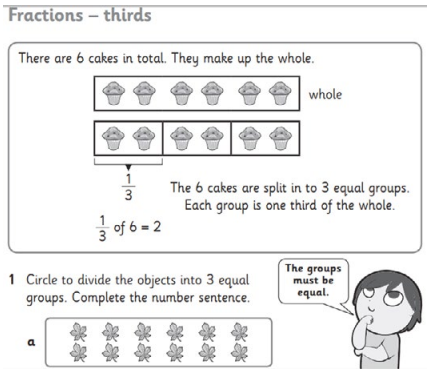
Small step: Find a Third



Topic: Fractions

Activity: *Fractions of a Collection 1*

This activity can be used by the teacher as a demonstration tool. Clicking on the 'Easier' and 'Medium' buttons will display questions involving finding a unit fraction of an amount (halves, thirds or quarters).



eBook, C series: Numbers, page 76

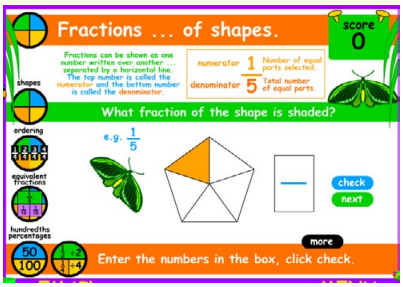
Pupils are shown how to share a quantity into 3 groups to help them find a third of a quantity.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

Small step: Unit Fractions

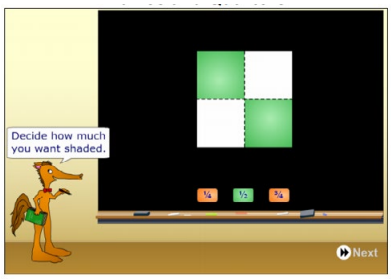


Rainforest Maths — Level D — Fractions ... of shapes

All the fractions explored on this page have a numerator of 1, so they are unit fractions. The page does not use this description, so teachers might want to explain this further.

Pupils can then explore a range of different shapes and the representations of unit fractions. They are asked to record the shaded unit fraction shown.

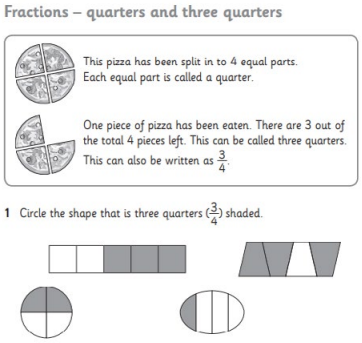
Small step: Non-Unit Fractions



Topic: Fractions

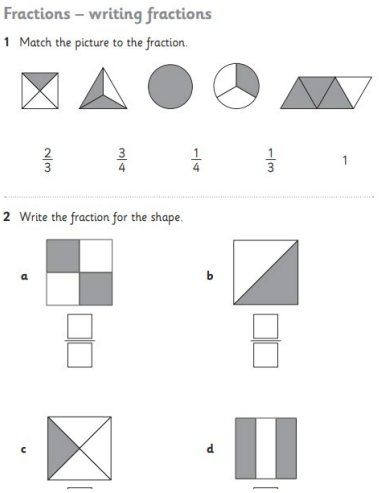
Activity: *Halves and Quarters*

In this activity, pupils click to shade a shape to represent the given fraction ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$).



eBook, C series: Numbers, page 71

This page introduces non-unit fractions for quarters. The explanation shows students how to recognise and record $\frac{3}{4}$.



eBook, C series: Numbers, page 83

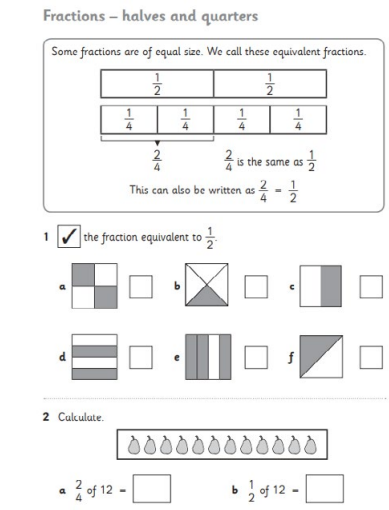
Pupils identify the correct fraction for a shaded shape. Non-unit fractions for thirds and quarters are included.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

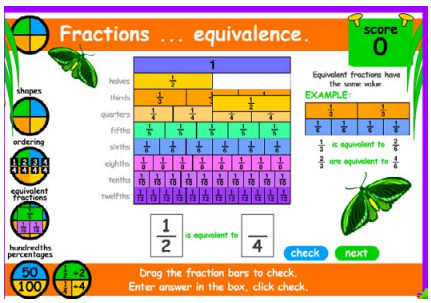
Alignment with Mathletics

Small step: The Equivalence of $\frac{1}{2}$ and $\frac{2}{4}$



eBook, C series: Numbers, page 70

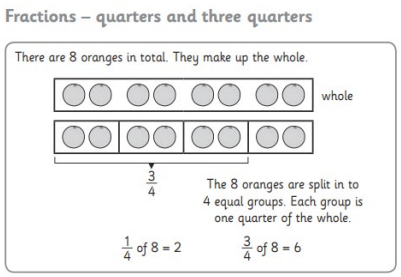
On this page, pupils explore the relationship between $\frac{2}{4}$ and $\frac{1}{2}$ in both shapes and quantities and recognise that these are equivalent fractions.



Rainforest Maths — Level D— Fractions

This visual extends beyond recognising the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$ but as the $\frac{1}{2}$ piece can be dragged from the fraction wall and placed adjacent to other sections of the wall, it forms an excellent visual representation.

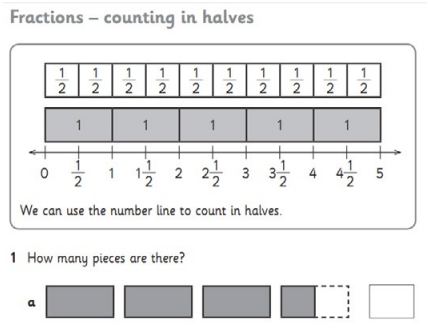
Small step: Find Three Quarters



eBook, C series: Numbers, pages 73 and 74

Pupils find $\frac{3}{4}$ of simple amounts, first using visual representations to help and then progressing to using numbers only.

Small step: Count in Fractions



eBook, C series: Numbers, pages 79–81

Pupils begin by counting in halves and progress to counting in quarters and thirds using visual representations.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

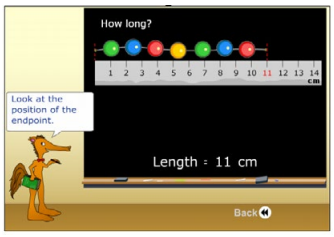
Alignment with Mathletics

Examples of alignment to Mathletics

Block 5 (Week 11) Measurement: Length and Height

National Curriculum Objectives	WRM Small Steps
▸ Choose and use appropriate standard units to estimate and measure **length/height in any direction (m/cm)**; mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, **using rulers**, scales, thermometers and measuring vessels. ▸ **Compare and order lengths**, mass, volume/capacity and **record the results using >, < and =.**	▸ Measure Length (cm) ▸ Measure Length (m) ▸ Compare Lengths ▸ Order Lengths ▸ Four Operations with Lengths

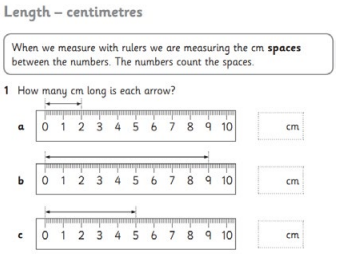
Small step: Measure Length (cm)



Topic: Length and Height

Activity: *How Long is That?*

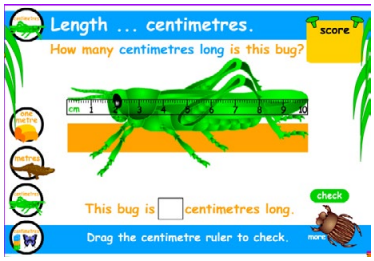
Pupils are able to drag a ruler into place to measure an object in centimetres. The support shows pupils how to correctly line up the object on the ruler.



eBook, C series: Measurement, pages 3–6

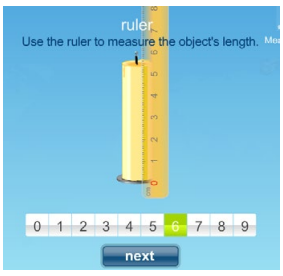
Pupils are introduced to centimetres as a standard unit of measurement. They learn to read the number of centimetres as marked on a ruler and then use their ruler to measure things in the classroom.

On page 6 is a paired activity. Pupils draw round their feet and measure the length of their feet with a partner.



Rainforest Maths — Level C — Length

Pupils can drag the ruler and place it along the bug to measure the bug's length in centimetres.



Concept Search — Ruler

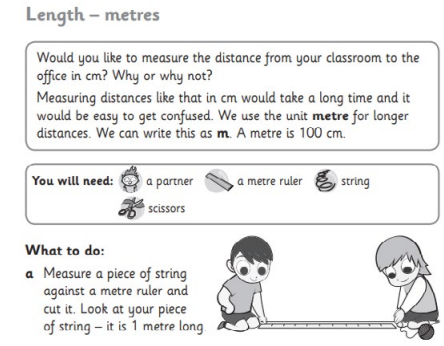
This interactive activity can be used for pupils to practise measuring items or used as a demonstration tool. The ruler can be moved and rotated so that it is placed next to the item. The ruler mirrors the rulers often used by pupils at KS1 as the first marking does not start at the beginning of the ruler. Objects placed vertically provide an opportunity to discuss height.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

Small step: Measure Length (m)



Length – metres

Would you like to measure the distance from your classroom to the office in cm? Why or why not?

Measuring distances like that in cm would take a long time and it would be easy to get confused. We use the unit **metre** for longer distances. We can write this as **m**. A metre is 100 cm.

You will need: a partner, a metre ruler, string, scissors

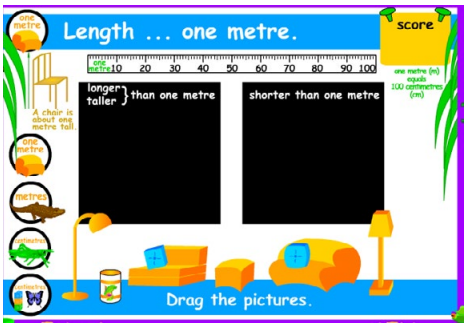
What to do:

a Measure a piece of string against a metre ruler and cut it. Look at your piece of string – it is 1 metre long.

eBook, C series: Measurement, pages 8–10

Pupils work with a partner and use a metre stick and some string to measure longer lengths.

A practical activity on page 10 has pupils throwing a ball or Frisbee and then measuring the length of their throw. They estimate the length of their throw and then use a trundle wheel to measure the distance.

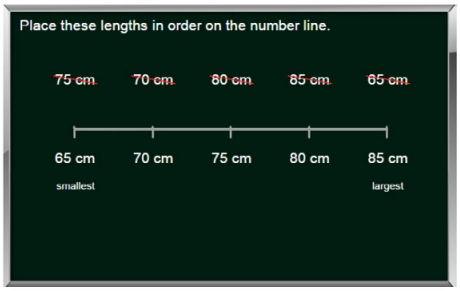


Rainforest Maths — Level C — Length

Pupils use their knowledge of everyday objects to drag and sort items that are longer or shorter than 1 metre.

The next activity allows pupils to measure the length of creatures in metres by moving the measuring tape, which is marked in metres.

Small step: Compare Lengths
Small step: Order Lengths

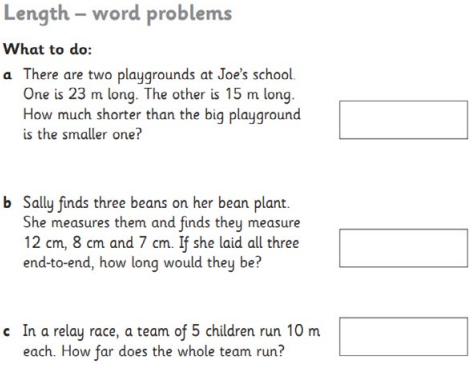


Topic: Length and Height

Activity: *Ordering Lengths (cm)*

Pupils drag centimetre lengths into order on a number line (up to 100 cm).

Small step: Four Operations with Lengths



Length – word problems

What to do:

a There are two playgrounds at Joe's school. One is 23 m long. The other is 15 m long. How much shorter than the big playground is the smaller one?

b Sally finds three beans on her bean plant. She measures them and finds they measure 12 cm, 8 cm and 7 cm. If she laid all three end-to-end, how long would they be?

c In a relay race, a team of 5 children run 10 m each. How far does the whole team run?

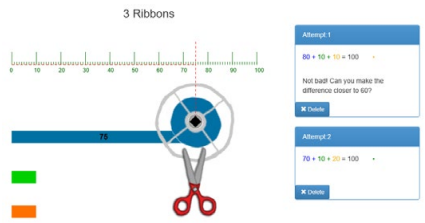
eBook, C series: Measurement, page 12

These word problems put centimetre and metre measurements into familiar contexts. All 4 operations are covered.

Year 2 White Rose Maths (WRM)

Spring Scheme of Learning, 2018

Alignment with Mathletics

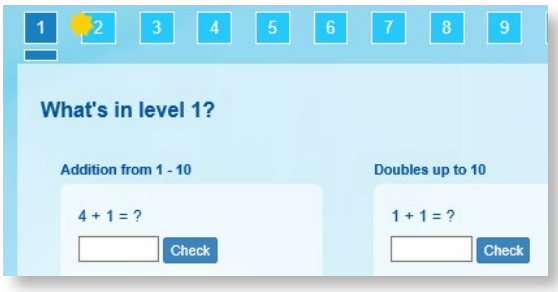


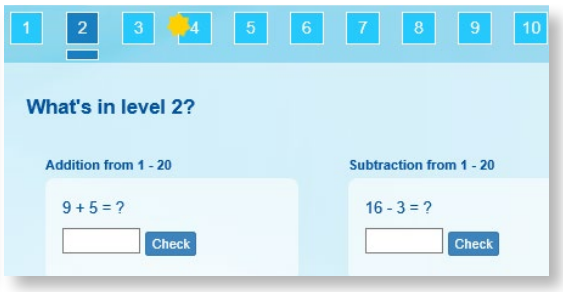
Rich Learning Task, C series: 3 Ribbons

This interactive is designed to be used with the whole class and engages pupils in solving an addition and subtraction problem which has more than 1 answer. The 3 reels of ribbon can be virtually rolled out and cut into different lengths.

A printable pupil sheet can be used so that pupils can replicate the problem practically or use drawings to help them problem solve.

Live Mathletics





Live Mathletics engages pupils in 60-second real-time games, testing speed and accuracy of maths facts.

To support progress in Year 2, challenge pupils to use **Level 1 and 2** of Live Mathletics.

Teachers can set minimum levels on Live Mathletics by clicking the 'switch to old Mathletics' button, selecting **Results** and selecting **Minimum levels** on the left-hand side of the page. Students can still access higher levels once you set a minimum level, so encourage students to challenge themselves and move on to the next level when they are ready.

When assigning activities with calculations that do not have spaces for recording any working out, consider getting pupils to record their thinking strategies in their Maths books or on a whiteboard, before answering the question in Mathletics. Pupils can then self-mark their work after each question. If they have made a mistake, they can correct their work using the support feature in the activities. Instant feedback and learning!

Mathletics

For more information about Mathletics,
contact our friendly team.

www.mathletics.com/contact

A 3P Learning Product