



# Year 5 White Rose Maths (WRM) Summer Scheme of Learning, 2018 Alignment with Mathletics

## Year 5 – 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		Statistics		Number – Multiplication and Division		Perimeter and Area		Consolidation
Spring	Number – Multiplication and Division			Number – Fractions						Number – Decimals & Percentages		Consolidation
Summer	Number – Decimals				Geometry- Properties of Shapes		Geometry- Position and Direction	Measurement- Converting Units		Measures Volume	Consolidation	

This alignment document has been based on the White Rose Maths (WRM) scheme of learning available on the TES website.





# Year 5 White Rose Maths (WRM) Summer Scheme of Learning, 2018

Mathletics

## Content

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## Purpose:

The aim of this document is to support Mathletics teachers, who use the WRM scheme 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 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 has been added to the document.

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

### Course selection:

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

### England Yr 05 WRM Aligned



Data-Driven  
Teaching and  
Learning



Differentiation



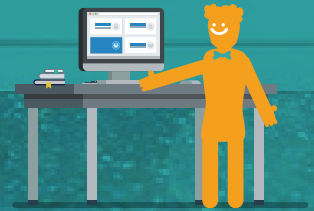
Feedback and  
Reflection



Student Growth



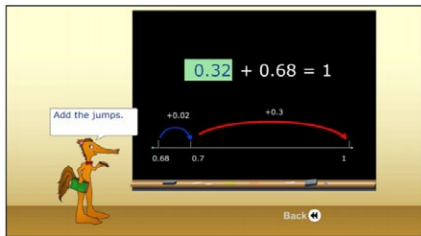
Blended  
Learning



Examples of alignment to Mathletics  
Block 1 (Weeks 1–4) Number: Decimals

National Curriculum Objectives	WRM Small Steps
<ul style="list-style-type: none"> <li>Solve problems involving number up to three decimal places.</li> <li>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li> <li>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</li> </ul>	<ul style="list-style-type: none"> <li>Adding Decimals within 1</li> <li>Subtracting Decimals within 1</li> <li>Complements to 1</li> <li>Adding – Crossing the Whole</li> <li>Adding – Same Decimal Places</li> <li>Subtract – Same Decimal Places</li> <li>Adding – Different D.P</li> <li>Subtracting – Different D.P</li> <li>Wholes and Decimals</li> <li>Decimal Sequences</li> <li>Multiply by 10, 100 and 1,000</li> <li>Divide by 10, 100 and 1,000</li> </ul>

Small step: Complements to 1



Topic: **Decimals**

Activity: **Decimal Complements**

In this activity pupils find pairs of decimals that add to 1 whole. The easier level begins with tenths before moving to hundredths. The support area uses a number line to show pupils the strategy of jumping to the next tenth and then adding tenths to make 1 whole.

Small step: Adding – Crossing the Whole

Calculating – adding decimal fractions

How do we add decimal fractions using a written strategy?  
We arrange the numbers so the place values line up and then we start with the smallest value.

1 . 6	
+ 4 . 7	
-----	
5 . 3	

We first add the tenths. 6 tenths and 7 tenths is 13 tenths.  
We rename this as 1 one and 3 tenths.  
We write the 3 in the tenths column and move the ones number to the ones column.  
Then we add the ones. 1 + 4 = 5

Knowing how to rename is a useful skill when adding decimal fractions. Practise your renaming skills here by colour coding the matching boxes.

10 tenths      28 tenths      2 ones and 8 tenths  
416 hundredths

eBook, F series: **Fractions, Decimals and Percentages, page 37**

Pupils are shown how to set out a calculation when adding decimals. They complete exercises to practise additions of decimals, including those where the tenths add up to more than 1.

**Decimals ... adding decimals.**  
With regrouping (trading, exchanging or carrying).

EXAMPLE:

ones   tenths   hundredths	
1   4   8	
+ 4   4   7	
-----	
5   9   5	

If you have to regroup (trade), write the numbers in the top boxes.  
Enter other answers here.  
check as you go. next

Enter answers in the boxes.

Rainforest Maths – Level D – Decimals – adding decimals

Pupils are shown a completed example of a calculation where decimals are added. Using the prompts to help, they complete examples and check to see if their answers are correct.

### Small step: Adding — Same Decimal Places

2 Add these decimal fractions:

a 
$$\begin{array}{r} 2.6 \\ + 3.3 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 4.7 \\ + 5.4 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 5.4 \\ + 3.5 \\ \hline \end{array}$$

d 
$$\begin{array}{r} 1.5 \\ + 2.3 \\ \hline \end{array}$$

e 
$$\begin{array}{r} 1.8 \\ + 3.2 \\ \hline \end{array}$$

f 
$$\begin{array}{r} 9.4 \\ + 3.7 \\ \hline \end{array}$$

3 Now try these. Start with the hundredths and remember to rename if necessary:

a 
$$\begin{array}{r} 3.46 \\ + 5.23 \\ \hline \end{array}$$

b 
$$\begin{array}{r} 4.72 \\ + 3.19 \\ \hline \end{array}$$

c 
$$\begin{array}{r} 7.36 \\ + 5.65 \\ \hline \end{array}$$

eBook, F series: Fractions, Decimals and Percentages, page 37

Calculation exercises are set out for pupils to complete, modelling the importance of lining up digits with the same place value.

Exercise 3 includes the addition of decimals with tenths and hundredths.

**Decimals ... adding decimals.**  
With regrouping (trading, exchanging or carrying).

EXAMPLE:

ones	tenths	hundredths
4	2	5
4	7	8
9	0	4

+ 
$$\begin{array}{r} 2.294 \\ + 2.668 \\ \hline \end{array}$$

Enter the numbers in the boxes.

If you have to regroup (trade), enter the numbers in the top boxes.

Enter other answers here.

check as you go.

next

Rainforest Maths — Level E — Decimals — adding decimals

Pupils add 2 numbers with the same number of decimal places (2 decimal places). All questions require making exchanges.

### Small step: Subtract — Same Decimal Places

$$6.7 - 2.1 = 4.6$$

Subtract the decimals.

6	.	7
-	.	2
4	.	6

Back

Topic: Decimals

Activity: *Subtract Decimals 1*

Pupils subtract 2 decimals using the written method. All questions involve decimals with the same number of decimal places.

#### Calculating — subtracting decimal fractions

How do we subtract decimal fractions using a written strategy?  
We arrange the numbers so the place values line up and then we start with the smallest value.

We first subtract the tenths. We have 2 tenths, can we subtract 5 tenths from this? No, so we rename a one as 10 tenths. Now we have 12 tenths. 12 tenths subtract 5 tenths is 7 tenths.

We have 5 ones, can we subtract 4 ones? Yes, the answer is 1 one.

5	.	4
-	.	5
1	.	7

eBook, F series: Fractions, Decimals and Percentages, page 39

Pupils are shown an example of a subtraction calculation with decimals, where a 1 needs to be exchanged to tenths to complete the answer. Pupils then complete exercises to practise this concept.

1 Solve these subtraction problems:

a 
$$\begin{array}{r} \square \\ - 2.2 \\ \hline \end{array}$$

b 
$$\begin{array}{r} \square \\ - 3.4 \\ \hline \end{array}$$

c 
$$\begin{array}{r} \square \\ - 3.5 \\ \hline \end{array}$$

d 
$$\begin{array}{r} \square \\ - 5.2 \\ \hline \end{array}$$

e 
$$\begin{array}{r} \square \\ - 1.2 \\ \hline \end{array}$$

f 
$$\begin{array}{r} \square \\ - 3.7 \\ \hline \end{array}$$

**Decimals ... subtraction.**  
With regrouping (trading, exchanging or carrying).

In subtraction REGROUP means to trade, exchange or 'borrow' a 10 from the next column on the left.

ones	tenths	hundredths
8	1	4
9	4	5
5	9	2

Subtract the hundredths, then the tenths.

When the top number is smaller than the bottom number you have to REGROUP. When this happens, subtract from the coloured numbers.

Enter answers here.

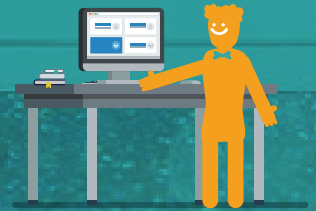
check as you go.

next

Enter answers in the boxes.

Rainforest Maths — Level D — Decimals — subtracting

Pupils are shown an example of a calculation where decimals are being subtracted. They are prompted to show where regrouping, trading or exchanging is needed as they complete the answer. By selecting 'check', each digit in the answer is ticked, enabling students to pinpoint their errors.



**Decimals ... subtraction.**

With regrouping (trading, exchanging or carrying).

hundreds	ones	tenths	hundredths
7	15		
8	5	7	6
-	2	8	2

Subtract the hundredths, then the tenths.

When the top number is smaller than the bottom number you have to regroup. When you do this, subtract from the coloured numbers.

Enter answers here.

check as you go.

next

Enter the numbers in the boxes.

In subtraction REGROUP means to trade, exchange or 'borrow' a 10 from the next column on the left.

**Rainforest Maths – Level E – Decimals – subtracting**

Pupils can select to view exercises where the regrouping, trading or exchanging is already shown, or choose to work on examples where they have to enter this themselves. Pupils can check their answer in stages, to help them recognise at which point an error occurs.

**Small step: Adding – Different D.P**

3.43 + 0.22 = 3.65

Add the decimals.

3.43
+ 0.22
3.65

Back

Topic: **Decimals**

Activity: **Add Decimals 1**

Pupils add 2 decimals using the written method. Harder questions involve adding decimals with a different number of decimal places.

5.36 + 0.205 = 5.565

Add the decimals.

5.360
+ 0.205
5.565

Back

Topic: **Decimals**

Activity: **Adding Decimals**

Pupils add 2 decimals using the written method. Harder questions involve adding decimals with a different number of decimal places.

- 3 This is a sample of the menu at Laura's Lunches.
- Brad orders a cornish pastry & salad, a bucket of hot chips and an orange juice. How much will this cost him?
  - Angelina goes wild and orders a tuna roll, a bottle of water and a piece of fruit. What will this cost her?
  - Choose your own lunch. Itemise your list and calculate the total value of your order.

Laura's Lunches	
Salad sandwich	4.25
Tuna roll	2.20
Hot chips	1.95
Cornish pastry & salad	7.35
Fruit	0.50
Stirfry noodles	4.95
Slurpee	1.55
Orange juice	1.95
Bottle of water	2.15
Choc or banana muffin	1.85

**eBook, F series: Fractions, Decimals and Percentages, page 38**

Exercise 5 gives pupils a real-life example of when decimals are added. They are asked to choose items from a menu and calculate the total cost. Pupils will need to set out their work carefully to work through the calculations.

**Small step: Subtracting – Different D.P**

0.83 - 0.411 = ?

Write the problem vertically.

0.83
- 0.411

Hint: Line up the decimal points.

Back Next

Topic: **Decimals**

Activity: **Subtract Decimals 2**

Pupils use the written method to subtract 2 decimals, including decimals with a different number of decimal places. The support area reinforces the need to line up the decimal points.

Topic: **Decimals**

Activity: **Subtracting Decimals**

Pupils use the written method to subtract 2 decimals, including decimals with a different number of decimal places. The support area reinforces the need to line up the decimal points.

Calculating – subtracting decimal fractions

4 Use a mental or written strategy of your choice to solve these problems:

a  $27.47 - 16.277$       b  $13.75 - 9.25$

c In 1936 Jesse Owens broke the long jump record with a leap of 2.06 m. His record stood for 25 years until fellow American, Ralph Foster leapt 2.21 m. What did he beat Jesse's record by?

d The 100 m sprint record is held by Jamaican Usain Bolt, with a time of 9.69 sec. Asafa Powell neared that record a month later, with a time of 9.7 sec. What is the difference between their times? How much do you think Powell wishes he had managed to go just a tad faster?

We can also use our mental strategies when subtracting decimal fractions.

eBook, F series: **Fractions, Decimals and Percentages, pages 39–40**

In exercise 4, pupils complete questions that involve subtracting decimals with different numbers of place values. Pupils also answer questions presented as word problems to further apply their understanding.

### Small step: Decimal Sequences

Rainforest Maths – Level E– Decimals – patterns

Pupils are shown a sequence of decimals and asked to continue the identified pattern. Patterns include sequences of adding 0.1, 0.2, 0.3 and 0.5.

### Small step: Multiply by 10, 100 and 1,000

Topic: **Decimals**

Activity: **Multiply Decimals: 10, 100, 1000**

Pupils multiply decimal numbers by 10, 100 and 1,000. The support area demonstrates the movement of the numbers along the place value chart.

Calculating – multiplying decimals by 10, 100 and 1,000

When we multiply by 10 the number becomes larger by 1 place value.  
When we multiply by 100 the number becomes larger by 2 place values.  
When we multiply by 1,000 the number becomes larger by 3 place values.  
Look what happens to 45.216 when we apply these rules:

$45.216 \times 10 = 452.16$      $45.216 \times 100 = 4,521.6$      $45.216 \times 1,000 = 45,216$

5 Warm up with these. Work with a partner and a calculator. Predict your answers to the following then try out the problems. Your answers will be one or more of the following. The first one has been done for you.

tens    tenths    hundredths    ones

What place values are in your answers? Multiply by 10:

a these ones: 6, 3, 1 ..... We get 60, 30, 10 (tens)

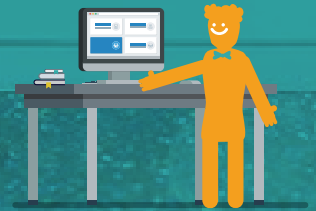
b these tenths: 0.6, 0.3 and 0.1 ..... We get

c these hundredths: 0.06, 0.03 and 0.01 ..... We get

d these ones and tenths: 1.6, 2.3 and 3.4 ..... We get

eBook, G series: **Fractions, Decimals and Percentages, page 36**

The strategy for multiplying decimals by 10, 100 and 1,000 is explained and modelled. Pupils apply their understanding to a range of exercises.



**Decimals ... multiplying.** score 0

When a decimal is multiplied by 10 the decimal point moves one place to the right.  
When a decimal is multiplied by 100 the decimal point moves two places to the right.

$9.35 \times 10 =$

$9.35 \times 100 =$

When a decimal is divided by 10 the decimal point moves one place to the left.  
When a decimal is divided by 100 the decimal point moves two places to the left.

**check** **next**

Enter the numbers in the boxes.

**Rainforest Maths — Level E — Decimals — multiplying**

Pupils are shown how to multiply a decimal by 10 and 100. They then complete examples where they multiply the same number by 10 and then 100. This enables students to see the answers together and discuss the patterns they notice. Dividing by 10 and 100 is also explained.

**Small step: Divide by 10, 100 and 1,000**

Evaluate:

$12.79 \div 1000 = 0.01279$

Move the decimal point to the left.

Working:

0.01279

Back

**Topic: Decimals**

**Activity: *Divide Decimals: 10, 100, 1000***

Pupils divide decimal numbers by 10, 100 and 1,000.

**Calculating – dividing decimals by 10, 100 and 1,000**

When we divide by 10 the number becomes smaller by 1 place value.  
When we divide by 100 the number becomes smaller by 2 place values.  
Look what happens to 45 when we apply these rules:  
 $45 \div 10 = 4.5$        $45 \div 100 = 0.45$        $45 \div 1,000 = 0.045$

**1 Divide these numbers by 10, 100 and 1,000. Estimate first.**

	$\div 10$	$\div 100$	$\div 1,000$
50	5		
25		0.25	
37.2			
48.5			0.0485
542			

**eBook, G series: Fractions, Decimals and Percentages, page 37**

The strategy for dividing a decimal by 10, 100 and then 1,000 is explained and examples are shown. Pupils then apply this learning to exercises, beginning by completing a chart where they divide numbers by 10, then 100 and finally 1,000. The completed chart will enable pupils to see and discuss the patterns they observe.



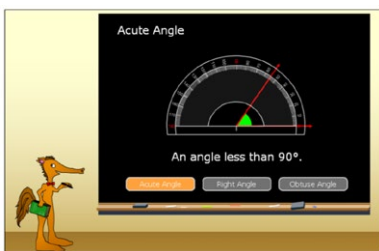


## Examples of alignment to Mathletics

### Block 2 (Weeks 5–7) Geometry: Properties of Shape

National Curriculum Objectives	WRM Small Steps
<ul style="list-style-type: none"> <li>▶ Identify 3D shapes, including cubes and other cuboids, from 2D representations.</li> <li>▶ Use the properties of rectangles to deduce related facts and find missing lengths and angles.</li> <li>▶ Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> <li>▶ Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</li> <li>▶ Draw given angles, and measure them in degrees (<math>^{\circ}</math>).</li> <li>▶ Identify: angles at a point and one whole turn (total <math>360^{\circ}</math>), angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^{\circ}</math>) other multiples of <math>90^{\circ}</math>.</li> </ul>	<ul style="list-style-type: none"> <li>▶ Measuring Angles in Degrees</li> <li>▶ Measuring with a Protractor (1)</li> <li>▶ Measuring with a Protractor (2)</li> <li>▶ Drawing Accurately</li> <li>▶ Angles on a Straight Line</li> <li>▶ Angles Around a Point</li> <li>▶ Lengths and Angles in Shapes</li> <li>▶ Regular and Irregular Polygons</li> <li>▶ Reasoning about 3D Shapes</li> </ul>

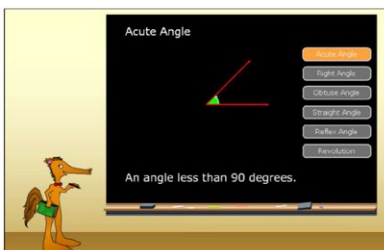
#### Small step: Measuring Angles in Degrees



Topic: **Properties of Shapes**

Activity: **What Type of Angle?**

In this activity pupils identify if an angle is acute, a right angle or obtuse. The support area provides a reminder of the sizes of those 3 angle types.

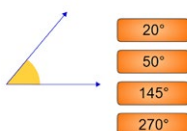


Topic: **Properties of Shapes**

Activity: **Classifying Angles**

Pupils classify a given angle as right, obtuse, straight, reflex or a revolution. The support area provides a reminder of the sizes of those 6 angle types.

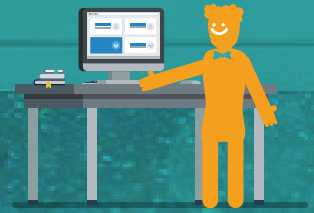
The best estimate for the angle is:



Topic: **Properties of Shapes**

Activity: **Estimating Angles**

Pupils use their knowledge of different angle types to estimate the size a given angle.



Lines and angles – lines

**What is an angle?**  
Look at where these two lines meet. The angle is the amount of space between where they join. It's also the amount of turn between them.

If we imagine that these two lines are joined at their meeting point, we could rotate the lines around this point. They'll stay joined but the amount of turn will change.

We measure angles using degrees – the symbol for this is °. We use a protractor as our measuring tool.

- A circle is a full turn and is 360°. Think of it as a clock – from 12:00 round to 12:00. Copy this page and then cut out the circle below and try the following:
  - Fold the circle in half. How many degrees are in a half circle?
  - Fold it in half again. You now have a quarter circle. How many degrees are in a quarter of a circle?

eBook, F series: Geometry, pages 2–3

Page 2 provides a concise explanation of what an angle is and how it is measured. A practical activity, where pupils cut out and fold a circle, enables students to explore different angles.

Page 3 illustrates and explains acute, right, obtuse and reflex angles. Pupils identify and label these angles.

**angle**  
Move the hand to make an angle.

Mathletics dictionary – Concept Search – angle

This interactive can be used on an interactive whiteboard to encourage class discussion about different angles. The hands can be moved to create specific angles.

**2D shapes ... angles.**

An angle is the amount of turning between two lines meeting at a common point. The two lines are called arms.

Angles are measured in degrees and are classified as follows:

circles	Angles are measured in degrees and are classified as follows:
polygons	less than 90° acute angle
angles	90° right angle
lines	between 90° and 180° obtuse angle
diagonals	180° straight angle
symmetry	between 180° and 260° reflex angle
tessellations	360° a revolution

An angle of 260° is

- an acute angle
- a right angle
- an obtuse angle
- a straight angle
- a reflex angle
- a revolution

click the correct label

Rainforest Maths – Level F – 2D Shapes – angles

A range of angles are clearly illustrated and named. Pupils match a variety of degree measurements to the different types of angles.

Small step: Measuring with a Protractor (1)  
Small step: Measuring with a Protractor (2)

Lines and angles – measuring angles

Sometimes we need to be more precise when naming angles, instead of just using terms such as acute or obtuse. This is where a protractor comes in handy. To measure an angle using a protractor we:

- fit the baseline of the protractor to one line of the angle, lining up the centre point of the protractor with the vertex of the angle
- look where the other line intersects the numbers, making sure we read round from 0°.

Use a protractor to measure all of these marked angles. Write the answers in the angles:

eBook, F series: Geometry, page 4

Measuring angles using a protractor is illustrated and explained to pupils. Exercises enable pupils to practise using a protractor and encourage them to reason about angles within 2D shapes.

**protractor**  
Use the protractor to measure the degree of the angle A.

Mathletics dictionary – Concept Search – protractor

Pupils drag and position the protractor on the screen to measure a given angle. Immediate feedback shows pupils if they are correct. They can reattempt the measurement until they achieve the correct answer and then move on to a new example.

### Rainforest Maths — Level F — 2D Shapes — angles

Clicking on 'more' at the bottom left-hand corner opens this screen, where pupils can drag the protractor onto the angle and carefully measure the shown angle. Instant feedback enables pupils to try again if their answer is incorrect.

### Small step: Drawing Accurately

Lines and angles – measuring angles

Use a protractor to complete these angles. One line is drawn for you. You need to measure and draw the other line. Draw it about the same length as the other line. Mark the angles with the measurements.

### eBook, F series: Geometry, page 5

Pupils are shown a set of lines. They are then invited to use protractors and rulers to carefully draw given angles.

### Small step: Angles on a Straight Line

### Rainforest Maths — Level G — 2D Shapes — angles

Clicking 'more' at the bottom right-hand corner enables pupils to move through a series of exercises exploring angles. After calculating the missing angle in a shape, selecting 'next' opens exercises where pupils calculate angles on a straight line.

### Small step: Angles Around a Point

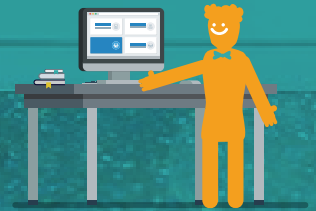
### Topic: Properties of Shapes

#### Activity: *Angles in a Revolution*

Pupils calculate the value of one of the angles forming a revolution. The support area reminds pupils that the angles forming a revolution add to 360°.

### eBook, E series: Geometry, page 6

Pupils use their knowledge of the size of an angle of revolution to calculate the degrees between each 5 minutes on an analogue clock. They are then asked to identify the angle sizes of various times shown.



**Rainforest Maths – Level G – 2D Shapes – angles**

Clicking on 'more' at the bottom right-hand corner move pupils on from calculating a missing angle on a straight line, to calculating the missing angle around a point. Pupils enter their answers and receive immediate feedback.

**Small step: Lengths and Angles in Shapes**

**Rainforest Maths – Level G – 2D Shapes – angles**

Pupils are shown examples of 2D shapes, with a description of the rules that their angles follow. A related example then challenges pupils to apply this information in calculating a missing angle.

**Small step: Regular and Irregular Polygons**

**eBook, F series: Geometry, page 7**

The term 'polygon' is explained and examples of both regular and irregular polygons are shown. Pupils secure their understanding with exercises where they need to determine if the shapes illustrated are polygons and if they are regular or irregular polygons.

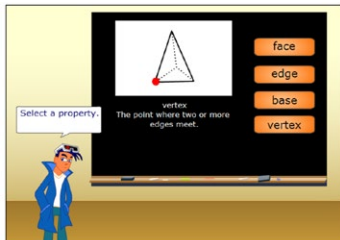
**Mathletics Dictionary – Concept Search – polygon**

Concept Search provides an excellent slide show for use on the interactive whiteboard, or for pupils to work through independently. A full range of regular polygons are illustrated and their features are described.

**Rainforest Maths – Level G – 2D Shapes – polygons**

This table provides pupils with an excellent reference tool, illustrating and describing a full range of 2D shapes. Clicking on the black shapes opens up a more detailed description and illustration.

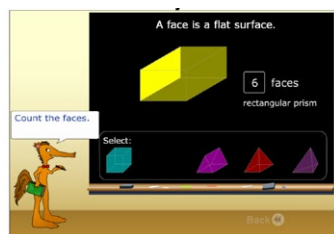
Small step: Reasoning about 3D Shapes



Topic: **Properties of Shapes**

Activity: **Faces, Edges and Vertices 1**

Pupils are asked to identify the property represented on a 3D shape including faces, edges, vertices and bases.



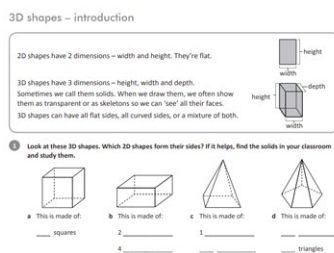
Topic: **Properties of Shapes**

Activity: **How Many Faces?**

Activity: **How Many Edges?**

Activity: **How Many Vertices?**

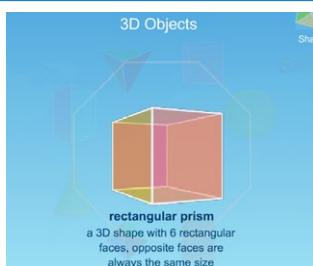
In these activities pupils are shown a 3D shape and are asked to identify the number of faces, edges or vertices.



eBook, F series: **Geometry, pages 18–23**

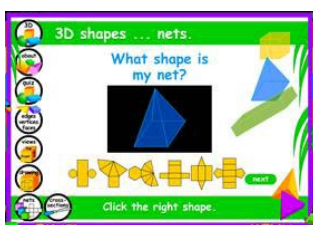
Following on from a concise explanation of 3D shapes, pupils explore a range of 3D shapes and identify and label their properties.

On pages 22–23 pupils explore the cross sections of 3D shapes. They are then encouraged to visualise what a cross section would look like and match it to given shapes.



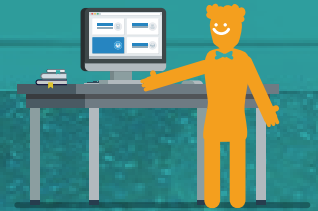
Mathletics Dictionary – Concept Search – **polygon**

Concept Search provides a slide show which clearly illustrates 3D shapes and describes their properties.



Rainforest Maths – Level G – **3D Shapes**

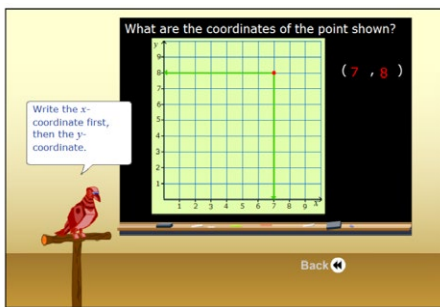
The 3D shapes topic in Level G of Rainforest Maths includes several tasks that involve reasoning about the relationship between 2D shapes and 3D shapes. Pupils are asked to identify nets, identify the corresponding shape for a given view of a 3D shape and identify the shape of cross-sections.



Examples of alignment to Mathletics  
Block 3 (Week 8) Geometry: Position & Direction

National Curriculum Objectives	WRM Small Steps
<p>► Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</p>	<ul style="list-style-type: none"> <li>► Position in the 1st Quadrant</li> <li>► Reflection</li> <li>► Reflection with Co-ordinates</li> <li>► Translation</li> <li>► Translation with Co-ordinates</li> </ul>

Small step: Position in the 1st Quadrant



Topic: **Position and Direction**

Activity: **Coordinate Graphs: 1<sup>st</sup> Quadrant**

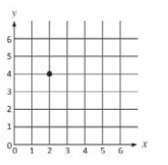
Pupils record the coordinates for a given point on a coordinate graph. The support area reminds pupils that the x coordinate is recorded first.

Position – coordinates

In maths we often use grids like this. The horizontal and vertical lines at the edges are called the **axes**. The horizontal line is the **x axis** and the vertical line is the **y axis**. Each axis is labelled with numbers. These sit on a line.

Coordinates are a way of describing a specific point on a grid. They will always refer to a point where two lines cross.

If we want to describe a particular point we always write the **x coordinate** first, followed by the **y coordinate**. So, the point shown above is (2,4).



3 Mark the following coordinates on the grid below:

a (4, 1)

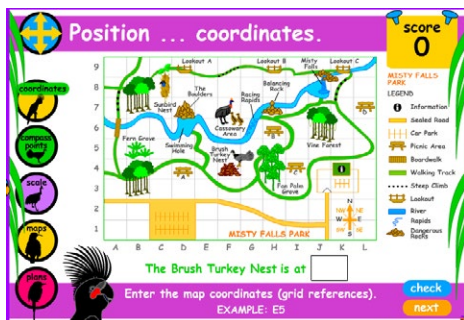
b (6, 4)



eBook, F series: **Geometry, pages 30–36**

Pages 30–34 explore coordinates where 2 lines intersect. Pupils mark points using the given coordinates, as well as record coordinates of given points. They then move on to using a series of coordinates to map points and join them to create shapes.

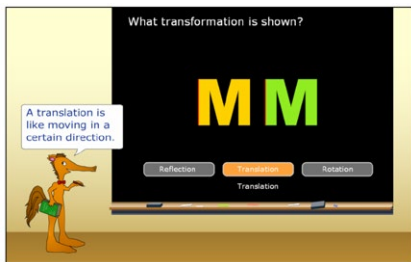
Pages 35–36 explore coordinates on maps. Pupils are challenged to read the maps and identify the coordinates of specific features.



Rainforest Maths – Level F – Position – coordinates

This page provides a useful map featuring coordinates. It is particularly useful to be shown on a screen for the class to explore, finding the location of different features using coordinates. Individual students can answer the questions on the page, entering the coordinates of features.

### Small step: Reflection Small step: Translation



Topic: **Position and Direction**

Activity: **Transformations**

Pupils identify the type of transformation that a shape has undergone. The support area provides definitions for reflections, translations and rotations.

#### Two Points

#### Geometry

The two dark dots shown could be part of one or two edges or could be vertices of the shape you see after you reflect a triangle using a mirror. If you reflect a triangle using a mirror, the two dark dots shown could either be vertices, or part of one or two edges of the reflected shape.

Draw the original triangle, the reflection line, and the reflected shape that the dots are part of.

Try different possibilities.

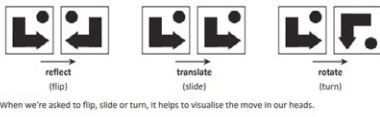


eBook, F series: **Rich Learning Task, page 16**

In this open-ended Rich Learning Task, pupils use the 2 given points as either points on edges of a triangle or vertices. They draw their original triangle and then draw the reflected triangle, marking the 2 reflected points. Pupils are encouraged to show different possibilities, practising reflecting a shape and recognising where points would be after the reflection.

#### Position – transformation

When we move a shape, we transform it. This tile shows three ways we can do this:



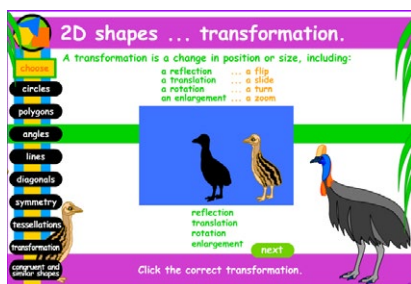
When we're asked to flip, slide or turn, it helps to visualise the move in our heads.

1 Look at this trapezium. Flip it in your head and then record what it looks like. Then turn it 180° clockwise (a half turn) in your head and record what it looks like now. Turn it another 90° clockwise (a quarter turn) and record.



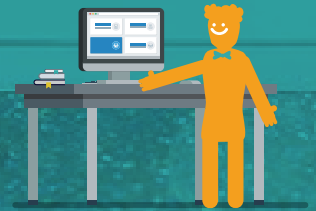
eBook, F series: **Geometry, pages 25–26**

Page 25 illustrates and explains how shapes look when different transformations are applied. Pupils explore reflections, translations and rotations. They consolidate their understanding by drawing transformations of a shape. Finally, they identify which movement has occurred when shown shapes in different positions.



Rainforest Maths – Level F – 2D shapes – transformation

This page explains what happens when an object or shape is reflected, translated, rotated or enlarged. Pupils identify which transformation has occurred when they compare 2 illustrations.



Examples of alignment to Mathletics

Block 4 (Weeks 9–10) Measurement: Converting Units

National Curriculum Objectives	WRM Small Steps
<ul style="list-style-type: none"> <li>Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml].</li> <li>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</li> <li>Solve problems involving converting between units of time</li> </ul>	<ul style="list-style-type: none"> <li>Kilograms and Kilometres</li> <li>Milligrams and Millilitres</li> <li>Metric Units</li> <li>Imperial Units</li> <li>Converting Units of Time</li> <li>Timetables</li> </ul>

Small step: Kilograms and Kilometres

Topic: **Converting Units**

Activity: *Grams and Kilograms Conversion*

Pupils convert between grams and kilograms. This activity involves whole number conversions only.

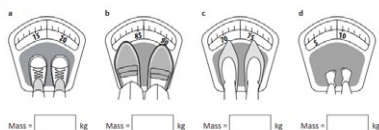
Topic: **Converting Units**

Activity: *Metres and Kilometres*

Pupils convert between kilometres and metres and vice versa. Questions begin with whole numbers only before moving onto conversions with decimals.

Mass – kilograms

1 How much does each person weigh?



2 Complete this table by writing each mass in grams and as a decimal. Remember to include the units of measurement.

Decimal notation	Grams	Kilograms and grams
	1,800 g	4 kg 250 g
3.75 kg		

eBook, F series: **Volume, Capacity and Mass, pages 9–10**

Pupils secure their understanding of the relationship between kilograms and grams through a series of exercises on page 9.

Page 10 uses the context of airline luggage allowance, with pupils working out the excess baggage and the excess luggage fee.



### Units of length – metres to kilometres

Which units of measurement do we already know about?

1 km = 1,000 m  
1 m = 0.001 km  
100 m = 0.1 km

To convert from km to m, multiply by 1,000. To convert from m to km, divide by 1,000.

1 Would you use metres or kilometres to measure the following lengths?

a Driveway  b Distance from London to Edinburgh   
c Height of your house  d A marathon race   
e Distance from Earth to the Moon  f Length of the school playground

2 Write these lengths in kilometres:

a 2,000 m =  km    b 5,000 m =  km    c 8,000 m =  km  
d 1,500 m =  km    e 3,645 m =  km    f 1,747 m =  km

### eBook, F series: Length, Perimeter and Area, pages 5–6

These pages provide exercises to explain and explore the relationship between metres and kilometres. Pupils decide whether metres or kilometres are the most appropriate unit of measurement for a variety of lengths. Further exercises involve pupils in converting both metres to kilometres and kilometres to metres.

Mass ... kilograms. score 2

1 kilogram = 1000 grams

choose: magnet 50 g, book 100 g, DVD 200 g, mug 250 g, painting 500 g

RAINFOREST SOUVENIR SHOP

1 kilogram. How many of each item would equal 1 kilogram?

10 books = 1 kilogram. ✓

check next

Enter answer, then click check.

### Rainforest Maths — Level F — Measurement — Mass

The relationship between grams and kilograms is explored in an exercise where pupils calculate how many objects shown in grams would be equivalent to 1 kilogram. Selecting the options of 'reading scales' and 'conversions' provide further opportunities for pupils to secure their understanding of mass.

Length ... units and devices. score 0

Metric units for measuring length include the millimetre, centimetre, metre and kilometre.

10 millimetres = 1 centimetre  
1000 millimetres = 1 metre  
100 centimetres = 1 metre  
1000 metres = 1 kilometre

Devices for measuring length include rulers, tapes, metre sticks, trundle wheels and odometers in vehicles.

Which is the best device to measure?  
the width of a book

lick the device which would be best for measuring the item.

### Rainforest Maths — Level F — Measurement — Length

This page shows pupils the relationship between different units of measurement used to record length. Selecting the 'conversions' link allows pupils to practise converting between different units of measurement.

## Small step: Milligrams and Millilitres

Convert from grams to milligrams.

5 grams = 5,000 milligrams

$5 \times 1,000$

1 gram = 1,000 milligrams

Convert to the unit indicated.

Back

### Topic: Converting Units

#### Activity: Grams and Milligrams

Pupils convert between kilograms and grams and vice versa. All conversions are whole numbers only.

Convert from litres (L) to millilitres (mL).

17.2 litres = 17,200 millilitres

$17.2 \times 1000$

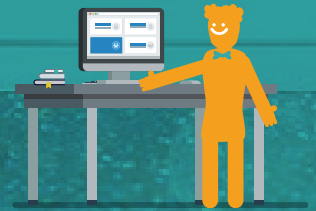
1 L = 1000 mL

Convert to the unit indicated.

### Topic: Converting Units

#### Activity: Millilitres and Litres

Pupils convert between millilitres and litres and vice versa. Questions begin with whole numbers only before moving onto conversions with decimals.



Volume and capacity – millilitres and litres

Capacity refers to the amount a container can hold and is usually associated with liquid.  
1,000 millilitres = 1 litre      1,000 ml = 1 l

1 When we convert:

a millilitres to litres we  by  1,000

b litres to millilitres we  by

2 Express these amounts in litres:

a 2,000 ml =       b 3,500 ml =

c 500 ml =       d 5,000 ml =

3 Convert these amounts to millilitres:

a 8 l =       b 2.5 l =

c 9.5 l =       d 0.6 l =

eBook, F series: Volume, Capacity and Mass, pages 1–2

Page 1 explains the relationship between millilitres and litres, with 1000 ml equalling 1 L.

Straightforward conversion questions secure pupils' understanding of converting from millilitres to litres. On page 2, pupils apply their understanding to problem-solving questions.

Capacity ... litres, millilitres. score 0

TROPICAL JUICE BAR - how many litres?

choose

one litre  
one litre  
one litre  
one litre  
one litre  
one litre  
one litre  
one litre  
one litre  
one litre

2 L = 2000 mL  
500 mL  
100 mL  
200 mL  
1 litre

Ten small cups of juice =  litre.

check next

1 L = 1000 mL      Enter answer, click check.      1000 mL = 1 L

Rainforest Maths – Level F – Measurement – Capacity – litres, millilitres

This game provides an opportunity for pupils to practise converting from millilitres to litres. Pupils add millilitre measurements together and then convert the total into litres.

Small step: Metric Units

Convert from mm to m.

1956 mm = 1.956 m

Convert to the unit indicated.      1956 ÷ 1 000

1 000 mm = 1 m

Back

Topic: Converting Units

Activity: Converting Units of Length

Pupils convert between millimetres and centimetres, millimetres and metres, centimetres and metres and vice versa.

Activity: Converting cm and mm

Activity: Centimetres and Metres

Units of length – m, cm, mm

This conversion box can help you convert units of length.

to convert from m to cm, multiply by 100

to convert from cm to m, divide by 100

to convert from m to mm, multiply by 1,000

to convert from mm to m, divide by 1,000

REMEMBER

1 m = 100 cm

1 cm = 10 mm

1 m = 1,000 mm

1 mm = 0.001 m

1 Convert these lengths to millimetres:

a 3 cm =  mm      b 3 cm =  mm      c 9 cm =  mm

d 7 cm =  mm      e 11 cm =  mm      f 15 cm =  mm

2 Convert these lengths to centimetres:

a 50 mm =  cm      b 20 mm =  cm      c 225 mm =  cm

d 35 mm =  cm      e 156 mm =  cm      f 495 mm =  cm

eBook, F series: Length, Perimeter and Area, page 2

A diagram provides a visual representation of the relationship between units of length including millimetres, centimetres and metres. Pupils then practise converting between units.

Small step: Imperial Units

What is the best unit to measure the weight?

A loaf of bread weighs about 1 pound.

about 1 ounce      about 1 pound

Back      Next

Topic: Converting Units

Activity: Ounces and Pounds

Pupils choose the most appropriate unit to measure the weight of a given object.

Activity: Inches, Feet, Yards

Activity: Cups, Pints, Quarts, Gallons



# Year 5 White Rose Maths (WRM) Summer Scheme of Learning, 2018

Mathletics

## Mass – metric and imperial units

Most measurements used today in the UK are metric – that is, they are based on tens, hundreds and thousands. However, you will still sometimes come across old ‘imperial’ measurements, such as ounces, pounds, stone and pints. Therefore, it’s useful to know how these imperial measurements relate to metric measurements.

	approximately...
<b>Mass</b>	
1 ounce = 28.35 g	30 g
1 pound (16 ounces) = 0.45 kg	0.5 kg
1 stone (14 pounds) = 6.35 kg	6.5 kg
<b>Capacity</b>	
1 pint = 0.57 l	0.6 l

Using the approximate equivalents, convert these imperial measures to metric:

- a 2 pounds =  kg      b 4 stones =  kg  
c 3 pints =  l      d 6 ounces =  g

eBook, F series: [Volume, Capacity and Mass, page 13](#)

This page explains the relationship between metric and imperial units of measurement for mass and capacity. Exercises provide pupils with examples to practise converting between metric and imperial measurements, including ounces to grams, pounds to kilograms and stones to kilograms.

## Units of length – metric and imperial equivalents

Most measurements used today in the UK are metric – that is, they are based on tens, hundreds and thousands. However, you will still sometimes come across old ‘imperial’ measurements, such as stone, pounds, pints, yards, feet and inches, and all road signs still measure longer distances in miles rather than kilometres. Therefore, it’s useful to know how these imperial measurements relate to metric measurements.

	approximately...
<b>Length</b>	
1 inch = 2.54 cm	2.5 cm
1 foot (12 inches) = 30.48 cm	30 cm
1 yard (3 feet) = 91.44 cm	90 cm
1 mile (1,760 yards) = 1.61 km	1.6 km
<b>Mass</b>	
1 ounce = 28.35 g	30 g
1 pound (16 ounces) = 0.45 kg	0.5 kg
1 stone (14 pounds) = 6.35 kg	6.5 kg
<b>Capacity</b>	
1 pint = 0.57 l	0.6 l

Using the approximate equivalents, convert these imperial measures to metric:

eBook, F series: [Length, Perimeter and Area, page 7](#)

This page provides a table of conversions between metric and imperial units of measurement for length, mass and capacity. Exercises give pupils the opportunity to apply these facts to convert between metric and imperial units and match equivalent measurements.

## Small step: Converting Units of Time

Calculate the number of seconds in  $5\frac{3}{4}$  minutes.

$5\frac{3}{4}$  minutes =  $5 \times 60 + 45$ , in seconds  
=  $300 + 45$ , in seconds  
= 345 seconds

Topic: [Converting Units](#)

Activity: [Time Conversions with Simple Fractions](#)

Pupils are encouraged to convert between seconds and minutes or minutes and hours by generating and recognising multiples of 60 and recalling simple fractions ( $1/4, 1/2, 3/4$ ) of an hour or minute.

## Measuring time – time relationships

Connect these time facts:

1 minute	24 hours	1 year	10 years
1 hour	365 days	1 fortnight	100 years
1 day	60 seconds	1 decade	12 months
1 year	60 minutes	1 century	14 days

How many minutes are there in the following hours?

- a 2 hours =  minutes      b  $\frac{1}{4}$  hour =  minutes  
c  $\frac{3}{4}$  hour =  minutes      d  $\frac{1}{2}$  hour =  minutes  
e 4 hours =  minutes      f 6 hours =  minutes

How many seconds are there in the following times?

I need to remember to change hours to minutes first. Then I can convert to seconds.

eBook, F series: [Time, page 1](#)

This page provides pupils with a comprehensive table showing the relationships between units of time. Pupils use this information to complete exercises which involve converting between different units of time and considering the most appropriate units to use in a range of circumstances.

**Time - time facts.**

Time is:

- a continuum from past to present to future, or
- the interval between two events, or
- the duration of an event.

Time is measured with clocks and other timing devices.

Use the time facts to answer the questions.

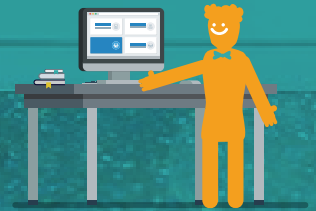
How many seconds in 5 minutes?

**300**

check next

Rainforest Maths — Level F— Time — Time Facts

This page provides a detailed table to support pupils in converting between different units of time. Pupils complete conversion questions using the information shown.



Small step: Timetables

A plane leaves Tokyo on Friday 11:26 AM bound for London.  
What will be the local arrival time if the flight takes 15 hours?

**1200 - 2100 = -0900**  
London is 9 hours behind Tokyo.

**11:26 AM + 15 hours = 12:26 AM**

Departure time London = Fri 11:26 AM + 9 hours = Fri 2:26 AM

Arrival time London = Fri 2:26 AM + 15 hour flight = Fri 5:26 PM

Back

Topic: **Converting Units**

Activity: **Time Zones**

Pupils read and interpret a flight timetable to solve problems such as arrival times and time differences.

Timetables – measuring time

Timetables are often used to schedule public transport.

Use the timetable to answer the questions below:

Station	Time				
Burwood	5:20	5:27	5:50	7:17	8:26
Croydon	-	-	6:00	7:27	8:36
Ashfield	5:55	5:42	6:05	7:32	8:41
Summer Hill	-	6:12	7:39	8:48	8:53
Lewisham	5:48	5:55	6:18	7:45	8:54

- a. What time does the 10 to 6 train from Burwood arrive at Ashfield? \_\_\_\_\_
- b. I have just missed the 5:35 train from Ashfield. How long do I have to wait until the next train? \_\_\_\_\_
- c. I live in Croydon and I want to get to Lewisham by 6:30. Which train should I get? \_\_\_\_\_

eBook, F series: **Time, pages 14–17**

Pupils are presented with a range of timetables from real-life contexts, including travel times, TV schedules and a class timetable from a fitness club. Questions involve pupils in finding the relevant information and using it to provide answers.

On page 17, pupils use a transport timetable to calculate the time spent travelling between different locations.

**Time - timetables.** score 1

**RAINFOREST TOURS - DAILY TIMETABLE**

Location	TOUR 1 a.m.	TOUR 2 a.m.	TOUR 3 p.m.	TOUR 4 p.m.
Rainforest Resort	7:30	8:30	12:30	2:30
Misty Falls	8:00	9:00	1:00	3:00
Fon Palm Forest	8:50	9:50	2:00	4:00
Crocodile Creek	9:15	10:15	2:30	4:15
Giant Fig Tree	9:30	10:30	2:45	4:30
Crystal Lake	9:45	10:45	3:00	4:45
Cassowary Center	10:15	11:15	3:45	5:00
Wildlife Sanctuary	10:30	11:45	4:00	5:30

What time does TOUR 3 leave Rainforest Resort? **12:30**

Enter answer in the box, then click check.

Rainforest Maths – Level F– Time – timetables

This page provides a good example of a timetable which could be shown to a class on an interactive whiteboard. Pupils use the timetable to answer the questions, receiving immediate feedback. If mistakes are made, pupils can enter a new answer before moving on.



### Examples of alignment to Mathletics Block 5 (Week 11) Measurement: Volume

National Curriculum Objectives	WRM Small Steps
<ul style="list-style-type: none"> <li>▶ Estimate volume [for example using <math>1\text{cm}^3</math> blocks to build cuboids (including cubes)] and capacity [for example, using water].</li> <li>▶ Use all four operations to solve problems involving measure.</li> </ul>	<ul style="list-style-type: none"> <li>▶ What is Volume?</li> <li>▶ Compare Volume</li> <li>▶ Estimate Volume</li> <li>▶ Estimate Capacity</li> </ul>

#### Small step: What is Volume?

Topic: **Volume**

Activity: *How many Blocks?*

Pupils are encouraged to use multiplication to find the total number of blocks used to form a 3D shape. Easier questions use rectangular prisms. Harder questions include irregular shapes.

Find the volume of the solid.



All cubes are  $1\text{cm}^3$ .

Volume =   $\text{cm}^3$

Topic: **Volume**

Activity: *Volume of Solids and Prisms –  $1\text{cm}^3$*

Pupils count the total number of blocks in solids and prisms. The volume is recorded in  $\text{cm}^3$  units.

c   $\text{cm}^3$

d   $\text{cm}^3$

2 How many more cubes would this model need to have a volume of  $27\text{cm}^3$ ?

cubes

eBook, E series: **Volume, Capacity and Mass, page 5**

Pupils measure the volume of solids by counting the number of  $\text{cm}^3$  blocks.

Volume and capacity – cubic centimetres ( $\text{cm}^3$ )

Volume is the amount of space occupied by an object or substance. A commonly used unit of volume is the cubic centimetre.



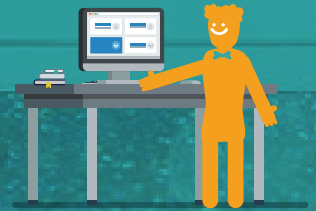
One cubic centimetre is 1 cm long, 1 cm wide and 1 cm high. The symbol we use for cubic cm is  $\text{cm}^3$ .  $1\text{cm} \times 1\text{cm} \times 1\text{cm} = 1\text{cm}^3$

- 1 For this activity you will need 48 centicubes or centimetre blocks. Work with a friend and record your answers in the table as you go:
- Use all 48 cubes to make a block 4 cubes wide and 4 cubes high. Before you begin, predict how long you think it will be. How long is it? Record your answer in the table below.
  - Now use all 48 cubes to make a block 12 cubes long. Before you begin, predict how wide and high it will be. How wide and high is it?
  - Can you make a block that is still 12 cubes long, but is a different height and width?

eBook, F series: **Volume, Capacity and Mass, page 3**

This page explains the concept of measuring volume and introduces the measurement of a cubic centimetre. ( $\text{cm}^3$ )

In this paired activity, pupils use centimetre blocks to create shapes and explore their volumes, completing a table with their findings.



**Volume ... cubic centimetres.** score 2

We measure volume in cubic units.  
The formula for finding the volume of a rectangular prism is  
 $\text{Volume} = \text{Length} \times \text{Breadth} \times \text{Height}$

What is the volume of the block prism?

A cubic centimetre is a cube with 1 cm sides.  
ABBREVIATION:  $\text{cm}^3$

choose

Length	Breadth	Height	Volume ( $\text{cm}^3$ )
3	1	2	6 $\text{cm}^3$

check NEXT

Complete the table. Click check.

**Rainforest Maths — Level F — Volume — cubic centimetres**

Pupils are shown a series of block prisms and record the length, breadth and height of the prism. They calculate the volume and can see the relationship between the volume and number of centimetre cubes they can count.

**Small step: Compare Volume**

**Think outside the box** create

Getting ready → In this activity you are going to create different shaped lidless boxes using the same sized piece of paper.  
You will need 3 sheets of cm squared paper, a ruler, scissors and some tape.  
You are going to calculate the volume of each box.

What to do →

**Box 1:**  
Cut a 12 cm square piece of paper.  
Make your first box by cutting one square out from each corner.  
Fold up the sides and tape the box together. What is the volume of the box? \_\_\_\_\_

**Box 2:**  
Cut out another 12 cm square piece of paper. This time, cut out 2 cm x 2 cm squares in each corner. Fold up the sides and tape that box together.  
Put the two boxes side by side. Do you think they have the same volume? Does one box look bigger than the other?  
Calculate the volume of the 2nd box. Was your prediction correct? \_\_\_\_\_

**Box 3:** \_\_\_\_\_

**eBook, F series: Volume, Capacity and Mass, page 6**

In this practical activity, pupils create 3 lidless containers using squared paper, cut into 12 cm squares. Pupils calculate the volume of each box and compare them. The task is extended with a challenge to create further boxes and to explore patterns and make predictions.

**Small step: Estimate Capacity**

**Capacity ... displacement.**

One cubic centimetre will displace one millilitre of water.  
 $1 \text{ cm}^3 = 1 \text{ mL}$

When an object is fully submerged under water it displaces the same volume and the water level rises.

choose

A centimetre is a small interlocking block with a volume of exactly 1  $\text{cm}^3$ .

Repeat click the blue centimetre, until the level of water in the medicine glass stops rising.

Original water level: 10 mL

0  $\text{cm}^3$

reset

Repeat click the centimetre. See how many millilitres are displaced.

1000 mL = 1L  
Abbreviations: litre ... L or l, millilitre ... mL or ml

**Rainforest Maths — Level F — Capacity — millilitres**

This activity supports pupils in understanding the link between capacity and volume. The activity can be used to support pupils in making estimations of the capacity of containers.

## Live Mathletics

The screenshot shows a 'What's in level 4?' interface with several math problems, each with an input field and a 'Check' button:

- Addition from 1 - 100:**  $35 + 30 + 10 = ?$
- Subtraction from 1 - 100:**  $30 - 6 = ?$
- Times tables to 10 x 10:**  $8 \times 6 = ?$
- Doubles and halves up to 100:** Half of 96 = ?
- 2s, 3s, 4s, 5s and 10s division facts:**  $30 \div 3 = ?$
- Addition from 1 - 50 with a missing addend:**  $25 + ? = 50$
- Times tables to 10 x 10 with a missing factor:**  $7 \times ? = 49$

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

To support progress in Year 5, encourage pupils to use **Level 4 and 5** 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.

(**Note:** Live Mathletics levels are a sliding scale, with no relationship to classes or old National Curriculum levels. As a resource which is also used in secondary schools, the levels from 6 upwards are intended for older students.)

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!



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For more information about Mathletics,  
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