

## Autumn Term – Year 8

Below are a series of learning objectives from each of the units that are covered in year 8. For each learning objective there are additional revision resource (video), practice and extension tasks. These resources are additional resources that you can use with your daughter.

### 1. Ratio & scale

Learning Objective	Revision Resource	Practice	Extension
Understand the meaning and representation of ratio	<a href="#">Introduction to ratios   Ratios, proportions, units, and rates   Pre-Algebra   Khan Academy - YouTube</a>	<a href="#">Ratio (transum.org)</a> level 1 to 4	<a href="#">3-writing-and-simplifying-ratio.pdf (mathsgenie.co.uk)</a>
Solve problems involving ratios of the form 1: n	<a href="#">Expressing Ratios as 1 to n - YouTube</a>	<a href="https://corbettmaths.com/wp-content/uploads/2013/02/simplifying-ratios-pdf1.pdf">https://corbettmaths.com/wp-content/uploads/2013/02/simplifying-ratios-pdf1.pdf</a>	<a href="#">3-writing-and-simplifying-ratio.pdf (mathsgenie.co.uk)</a>
Solve problems involving ratios of the form m : n	<a href="#">Ratio When Given One Quantity - Corbettmaths - YouTube</a>	<a href="#">Given one value pdf (corbettmaths.com)</a>	<a href="#">Ratio (corbettmaths.com)</a>
Divide in a given ratio	<a href="#">Sharing in Ratio - GCSE Maths - YouTube</a>	<a href="#">Ratio sharing the total (corbettmaths.com)</a>	<a href="#">3-sharing-ratio.pdf (mathsgenie.co.uk)</a>

### 2. Multiplicative change

Learning Objective	Revision Resource	Practice	Extension
Solve problems involving direct proportion	<a href="#">Key Skill - Solve direct proportion problems using a scaling method. - YouTube</a>	<a href="#">Unitary Method pdf (corbettmaths.com)</a>	
Explore conversion graphs	<a href="#">Conversion Graphs - Corbettmaths - YouTube</a>	<a href="#">Conversion Graphs (corbettmaths.com)</a>	<a href="#">Conversion graphs (corbettmaths.com)</a>
Convert between currencies	<a href="#">Exchange Rates - YouTube</a>	<a href="#">Currency (corbettmaths.com)</a>	<a href="#">3-exchange-rates.pdf (mathsgenie.co.uk)</a>
Draw and interpret scale diagrams	<a href="#">Scale Drawings - YouTube</a>	<a href="#">Scale Drawings (transum.org)</a>	<a href="#">3-scale-drawings.pdf (mathsgenie.co.uk)</a>

### 3. Multiplying and dividing fractions

Learning Objective	Revision Resource	Practice	Extension
Multiply a fraction by an integer	<a href="#">Key Skill - Multiply a fraction by an integer. - YouTube</a>	<a href="#">Multiplying Fractions pdf (corbettmaths.com)</a>	<a href="#">Multiplying Dividing Fractions (corbettmaths.com)</a>
Find the product of a pair of any fractions	<a href="#">Multiplying Fractions - Corbettmaths - YouTube</a>	<a href="#">Multiplying Fractions pdf (corbettmaths.com)</a>	<a href="#">Multiplying Dividing Fractions (corbettmaths.com)</a>
Divide an integer by a fraction	<a href="#">Key Skill - Divide a fraction by an integer. - YouTube</a>	<a href="#">Dividing Fractions pdf (corbettmaths.com)</a>	<a href="#">Multiplying Dividing Fractions (corbettmaths.com)</a>
Divide any pair of fractions	<a href="#">Dividing Fractions - YouTube</a>	<a href="#">Dividing Fractions pdf (corbettmaths.com)</a>	<a href="#">Multiplying Dividing Fractions (corbettmaths.com)</a>

### 4. Working in the Cartesian plane

Learning Objective	Revision Resource	Practice	Extension
Work with coordinates in all four quadrants	<a href="#">Key Skill - Plot a point in any quadrant given its coordinates. - YouTube</a>  <a href="#">Key Skill - Determine the coordinate of a point in any quadrant. - YouTube</a>	<a href="#">Coordinates (corbettmaths.com)</a>	<a href="#">1-coordinates.pdf (mathsgenie.co.uk)</a>
Identify and draw lines that are parallel to the axes	<a href="#">y equals graphs - Corbettmaths - YouTube</a>  <a href="#">x equals graphs - Corbettmaths - YouTube</a>	<a href="#">x=a and y=a graphs pdf (corbettmaths.com)</a>	<a href="#">1-coordinates.pdf (mathsgenie.co.uk)</a>
Recognise and use the line $y = x$	<a href="#">Aut843 - Recognise and use the line <math>yx</math> on Vimeo</a>		
Recognise and use lines of the form $y = kx$	<a href="#">Aut844 - Recognise and use lines of the form <math>yx</math> on Vimeo</a>	<a href="#">Drawing Linear Graphs (corbettmaths.com)</a>	<a href="#">3-linear-graphs.pdf (mathsgenie.co.uk)</a>

## 5. Representing data

Learning Objective	Revision Resource	Practice	Extension
Draw and interpret scatter graphs	<a href="#">Key Skill - Plot a point on a scatter graph. - YouTube</a>	<a href="#">Plotting Scatter Graphs (transum.org)</a>	<a href="#">4-scatter-graphs.pdf (mathsgenie.co.uk)</a>
Understand and describe linear correlation	<a href="#">Key Skill - Interpret the correlation represented on a scatter graph. - YouTube</a>	<a href="#">Correlation (transum.org)</a>	<a href="#">4-scatter-graphs.pdf (mathsgenie.co.uk)</a>
Draw and use line of best fit	<a href="#">Key Skill - Use a line of best fit on a scatter graph. - YouTube</a>	<a href="#">Scatter Graphs (corbettmaths.com)</a>	<a href="#">4-scatter-graphs.pdf (mathsgenie.co.uk)</a>
Construct and interpret two-way tables	<a href="#">Two Way Tables - YouTube</a>	<a href="#">Two way tables pdf (corbettmaths.com)</a>	<a href="#">3-two-way-tables.pdf (mathsgenie.co.uk)</a>

## 6. Tables & probability

Learning Objective	Revision Resource	Practice	Extension
Construct sample spaces for one or more events	<a href="#">Sample Space of Combined Events - YouTube</a>	<a href="#">Sample Spaces (corbettmaths.com)</a>	<a href="#">Sample Spaces (corbettmaths.com)</a>
Find probabilities from a sample space	<a href="#">Sample Space of Combined Events - YouTube</a>	<a href="#">Sample Spaces (corbettmaths.com)</a>	<a href="#">Sample Spaces (corbettmaths.com)</a>
Find probabilities from two-way tables	<a href="#">√ The Probability by Basic Two-Way Tables Explained with Fair Examples. Watch this video to find out - YouTube</a>	<a href="#">3-two-way-tables.pdf (mathsgenie.co.uk)</a>	<a href="#">3-two-way-tables.pdf (mathsgenie.co.uk)</a>
Find probabilities from Venn diagrams	<a href="#">Key Skill - Calculate probabilities using a Venn diagram. - YouTube</a>	<a href="#">Sets &amp; Venn Diagrams Questions - MME (mathsmadeeasy.co.uk)</a>	<a href="#">Venn Diagrams Foundation (corbettmaths.com)</a>