

3-year scheme of work

The following scheme of work provides a suggestion for how Pupil Book 3.1 can be taught over the course of one year, as part of a 3-year Key Stage 3 course.

Please note that you can recombine the test questions provided on *Collins Connect* to create new tests if your frequency of assessment differs from that below, or if you wish to combine content from different chapters in your own half-term tests.

This scheme of work is provided in editable Word and Excel format on the CD-ROM accompanying this Teacher Pack.

Chapter	Lesson	No. of hours	Learning objective	Comments/ suggestions
Half-term / Term 1				
1 Percentages	1.1 Simple interest	1	<ul style="list-style-type: none"> To understand what simple interest is To solve problems involving simple interest 	Pupils often struggle when they start using percentages greater than 100. Using real-life examples will help them overcome this. Start with percentages that pupils are already comfortable working with.
	1.2 Percentage increases and decreases	1	<ul style="list-style-type: none"> To calculate the result of a percentage increase or decrease To choose the most appropriate method to calculate a percentage change 	Pupils need a good understanding of 100% as a whole before tackling percentage increases and decreases successfully. The concept of using percentage as an operator is an important step to ensure confidence and fluency, so make sure you take time over it.
	1.3 Calculating the original value	2	<ul style="list-style-type: none"> Given the result of a percentage change, to calculate the original value 	This lesson looks at inverse operations to calculate the percentage change or to calculate an initial value. This is another concept with which pupils will need to be fluent, to ensure confidence in applying their understanding of percentages to real-life problems.
	1.4 Using percentages	1	<ul style="list-style-type: none"> To revise the links within fractions, decimals and percentages To choose the correct calculation to work out a percentage 	Pupils often meet the different types of questions over a period of time, so they never have the opportunity to identify the type of question and make independent decisions about which method to use. Give pupils lots of opportunity to check their understanding by making choices and decisions over the approaches they use in a range of increasingly complex and unfamiliar situations.
	Challenge – The Royal Albert Hall	2		This challenge activity starts with a literacy activity and moves onto calculations involving time and percentages in a real-life situation. Pupils will need to have grasped the work on percentages from the chapter. Less able pupils may need a quick explanation of significant figures and days in a year before starting the activity. This activity could be linked to other subjects such as History.
2 Equations and formulae	2.1 Multiplying out brackets	1	<ul style="list-style-type: none"> To multiply out brackets 	This chapter builds on previously learned algebraic techniques and moves on to more advanced methods of algebraic manipulation. These include: expanding brackets, factorising algebraic expressions and solving linear equations involving brackets and fractions.
	2.2 Factorising algebraic expressions	1	<ul style="list-style-type: none"> To factorise expressions 	
	2.3 Equations with brackets	1	<ul style="list-style-type: none"> To solve equations with one or more sets of brackets 	
	2.4 Equations with fractions	1	<ul style="list-style-type: none"> To solve equations involving fractions 	
	2.5 Formulae	1	<ul style="list-style-type: none"> To practise using formulae 	

	Financial skills – Wedding day	1		This financial skills activity gives pupils the opportunity to apply the skills they have learned in the chapter to a practical situation that many will encounter in the future. The cost formula used is often encountered in GCSE exams and it is important that pupils have a good grasp of this.
<i>Chapters 1–2 assessment on Collins Connect</i>				
3 Polygons	3.1 Polygons	1	<ul style="list-style-type: none"> To know the names of polygons To know the difference between an irregular polygon and a regular polygon 	This chapter introduces the sums of the interior and exterior angles of polygons, including regular polygons.
	3.2 Angles in polygons	1	<ul style="list-style-type: none"> To work out the sum of the interior angles of a polygon 	
	3.3 Interior angles of regular polygons	1	<ul style="list-style-type: none"> To work out the sizes of the interior angles in regular polygons 	
	Activity – Regular polygons and tessellations	2		For this activity, pupils learn about tessellations and use their knowledge of angles and polygons to find out if regular polygons will tessellate. Ask more able pupils to come up with solutions to combine polygons that don't tessellate with other polygons in order to make a tessellation pattern.
Half-term				
Half-term / Term 2				
4 Using data	4.1 Scatter graphs and correlation	1	<ul style="list-style-type: none"> To infer a correlation from two related scatter graphs 	This chapter picks up the ideas from previous years in statistics. It develops ways of illustrating distributions and how we can use data to explore possibilities as well as to compare them. This chapter concludes with pupils conducting their own investigations, using the ideas from the first part of the chapter.
	4.2 Interpreting graphs and diagrams	1	<ul style="list-style-type: none"> To use and interpret a variety of graphs and diagrams 	
	4.3 Two-way tables	1	<ul style="list-style-type: none"> To interpret a variety of two-way tables 	
	4.4 Comparing two or more sets of data	1	<ul style="list-style-type: none"> To compare two sets of data from statistical tables and diagrams 	
	4.5 Statistical investigations	1	<ul style="list-style-type: none"> To plan a statistical investigation 	In order to make comparisons between graphs, pupils need to be able to understand what the graph represents, what the axes mean and how to read data from the graph.
	Challenge – Rainforest deforestation	1		This challenge does not intend to make any judgement values. Instead, this activity has been devised to allow pupils to find what the statistics may suggest – in other words, that economic growth can affect the amount of deforestation.
<i>Chapters 3–4 assessment on Collins Connect</i>				
5 Circles	5.1 The formula for the circumference of a circle	1	<ul style="list-style-type: none"> To calculate the circumference of a circle 	Pupils are introduced to the number π and then shown how to use it in order to calculate the area and circumference of a circle. Pupils can then show their understanding by applying their learning to a variety of practical problems involving area and circumference. Make sure pupils understand the difference between perimeter and circumference.
	5.2 The formula for the area of a circle	2	<ul style="list-style-type: none"> To calculate the area of a circle 	
	5.3 Mixed problems	2	<ul style="list-style-type: none"> To solve problems involving the circumference and area of a circle 	
	Financial skills – Athletics stadium	2		This financial skills activity is designed to give pupils the opportunity to apply their knowledge to a multi-step real-life problem. Pupils will need to have a good understanding of the work covered in the chapter along with volumes of prisms.
6 Enlargements	6.1 Scale factors and enlargements	2	<ul style="list-style-type: none"> To use a scale factor to show an enlargement 	This chapter builds on previous years' work on scale and scale drawing and introduces pupils to the concept of enlarging a shape by a scale factor.
	6.2 The centre of enlargement	1	<ul style="list-style-type: none"> To enlarge a shape about a centre of enlargement 	

	6.3 Enlargements on grids	2	<ul style="list-style-type: none"> To enlarge a shape on a coordinate grid 	
	Problem solving – Photographs	2		This problem solving activity is designed to give pupils the opportunity to apply their knowledge of enlargements to a multi-step real-life problem.
Holidays				
Half-term / Term 3				
7 Fractions	7.1 Adding and subtracting fractions	1	<ul style="list-style-type: none"> To add or subtract any two fractions 	This chapter builds on the Year 8 work on fractions. Pupils often get taught rules without fully understanding them and often confuse rules for adding and subtracting fractions with those for multiplying and dividing fractions. Take time to build understanding; don't just teach the process.
	7.2 Multiplying fractions	1	<ul style="list-style-type: none"> To multiply two fractions 	
	7.3 Dividing fractions	1	<ul style="list-style-type: none"> To divide one fraction by another 	In this problem solving activity pupils are required to apply their understanding of fractions to a more complex problem. Pupils need to work methodically and be able to explain their solutions.
	Problem solving – The 2016 Olympic Games in Rio	2		
<i>Chapters 5–7 assessment on Collins Connect</i>				
8 Algebra	8.1 Expanding brackets	1	<ul style="list-style-type: none"> To multiply out brackets with a variable outside them 	This chapter recalls previous work on algebra and revisits expansion of brackets and collection of like terms. Pupils are then shown how to completely factorise a linear expression. Finally the more complex technique of expanding a pair of brackets and simplifying into a quadratic expression is introduced to pupils. Using the FOIL method to expand two brackets is a technique that may be useful.
	8.2 Factorising algebraic expressions	2	<ul style="list-style-type: none"> To factorise expressions 	
	8.3 Expand and simplify	2	<ul style="list-style-type: none"> To expand expressions with two brackets and simplify them 	
	Challenge – California gold	1		This challenge activity requires pupils to apply their learning in an unfamiliar context. Introduce it with some recent examples of treasure trove finds from the internet and get pupils to research the current price of gold per gram.
9 Decimal numbers	9.1 Multiplication of decimals	1	<ul style="list-style-type: none"> To practise multiplying decimal numbers 	The ability to understand place value is very important for being able to use numbers effectively when doing calculations in real life. The work in this chapter builds on pupils' existing knowledge. If necessary, check earlier objectives involving an understanding of place value.
	9.2 Powers of 10	1	<ul style="list-style-type: none"> To understand and work with both positive and negative powers of ten 	
	9.3 Rounding suitably	1	<ul style="list-style-type: none"> To round numbers, where necessary, to a suitable degree of accuracy 	
	9.4 Dividing decimals	1	<ul style="list-style-type: none"> To confirm ability to divide with decimals 	
	9.5 Solving problems	1	<ul style="list-style-type: none"> To solve real-life problems involving multiplication or division 	Pupils often struggle to decode word problems to identify the mathematics they need to use. Provide plenty of opportunity for pupils to discuss word problems to identify the mathematics required independently.
	Mathematical reasoning – Paper	2		All the information is provided in this mathematical reasoning activity, but it is quite complex. Pupils will need to read the questions very carefully to decide which information they need and what mathematical skills to use in each case.
Half-term				
Half-term / Term 4				
10 Surface area and volume of 3D shapes	10.1 Surface area of cubes and cuboids	2	<ul style="list-style-type: none"> To work out the surface area of cubes and cuboids 	Pupils often get confused when converting between different units for area and volume, and simply multiply or divide by the length conversion factor. Make sure that pupils know the difference when converting between area and volume.
	10.2 Volume of cubes and cuboids	2	<ul style="list-style-type: none"> To use a simple formula to work out the volume of a cube and cuboid To work out the capacity of a cube or cuboid 	
	10.3 Volume of triangular prisms	2	<ul style="list-style-type: none"> To work out the volume of a triangular prism 	Some pupils are confused by the difference between working out volume and surface area.

	Investigation – A cube investigation	2		Pupils apply their understanding of area to a more complex problem in this investigation. They will need to work methodically and be able to explain their solutions. Start by introducing them to the use of isometric paper. Ask more able pupils to justify any rules they discover by revisiting the structure of the problem.
<i>Chapters 8–10 assessment on Collins Connect</i>				
11 Solving equations graphically	11.1 Graphs from equations in the form $y = mx + c$	1	<ul style="list-style-type: none"> To draw a linear graph from any linear equation To solve a linear equation from a graph 	This chapter provides examples of the fact that many equations can arise from real-life situations, and it builds on straight-line graphs and quadratics with more complex examples. Pupils are introduced to the idea that while many equations that are used to model real life are difficult to solve by algebraic methods, they are more easily solved by drawing a graph.
	11.2 Problems involving straight-line graphs	1	<ul style="list-style-type: none"> To draw graphs to solve some problems 	
	11.3 Solving simple quadratic equations by drawing graphs	2	<ul style="list-style-type: none"> To solve a simple quadratic equation by drawing a graph 	
	11.4 Problems involving quadratic graphs	2	<ul style="list-style-type: none"> To solve problems that use quadratic graphs 	
	Problem solving – Squirrels	2		This problem solving activity gives pupils the opportunity to involve themselves in the practical aspects of using data in real life contexts. Make sure pupils have a good understanding of correlation.
Holidays				
Half-term / Term 5				
12 Distance, speed and time	12.1 Distance	2	<ul style="list-style-type: none"> To work out the distance travelled in a certain time at a given speed To use and interpret distance-time graphs 	This chapter teaches pupils how to calculate with different measures. Pupils are introduced to the relationship between speed, distance and time.
	12.2 Speed	2	<ul style="list-style-type: none"> To work out the speed of an object, given the distance travelled and the time taken 	
	12.3 Time	2	<ul style="list-style-type: none"> To work out the time an object will take on a journey, given its speed and the distance travelled 	
	Financial skills – Shopping at the market	1		This financial skills activity requires pupils to apply their learning from this chapter in an everyday, practical context. You could extend this activity by asking pupils to compare prices of the same product in different quantities from supermarket sites on the internet.
13 Similar triangles	13.1 Similar triangles	2	<ul style="list-style-type: none"> To understand what similar triangles are 	This chapter introduces the important properties of why triangles can be classed as similar and demonstrates to pupils how they can use these properties in real-life situations. Take your time with the introduction, making links with proportional reasoning. Otherwise pupils will struggle to retain what they have learnt in this lesson.
	13.2 A summary of similar triangles	1		
	13.3 Using triangles to solve problems	2	<ul style="list-style-type: none"> To understand that triangles can be used to solve some real problems 	
	Investigation – Barnes Wallis and the bouncing bomb	2		This investigation is an interesting application of the learning in this unit. Pupils may be familiar with the idea from films but will probably be surprised at its use here. This is a good opportunity to demonstrate links to other subjects, in this case history.
<i>Chapters 11–13 assessment on Collins Connect</i>				

14 Revision and GCSE preparation	<ul style="list-style-type: none"> • Practice • Revision • GCSE-type questions 	6	<p>This chapter is going to:</p> <ul style="list-style-type: none"> • Help pupils to practise and revise topics covered in their current course • Get pupils started on their GCSE course 	<p>The exercises in this chapter of the Pupil Book cover the following mathematical strands:</p> <ul style="list-style-type: none"> • Algebra • Geometry and measures • Statistics • Number <p>The material will provide excellent practice so that pupils become mathematically fluent. Encourage pupils to work through this whole chapter before their End of Year 9 tests.</p>
<i>Chapter 14 assessment on Collins Connect</i>				
<i>End of year assessment on Collins Connect</i>				

2-year scheme of work

The following scheme of work provides suggestions for teaching Pupil Book 3.1 as part of a 2-year Key Stage 3 course.

Please note that you can recombine the test questions provided on Collins Connect to create new tests if your frequency of assessment differs from that below, or if you wish to combine content from different chapters in your own half-term tests.

This scheme of work is provided in editable Word and Excel format on the CD-ROM accompanying this Teacher Pack.

Chapter	Lesson	No. of hours	Learning objective	Comments/ suggestions
Half-term / Term 1				
1 Percentages	1.1 Simple interest	1	<ul style="list-style-type: none"> To understand what simple interest is To solve problems involving simple interest 	Although pupils have met percentages before there are some important and quite challenging concepts in this chapter. The ideas of percentages as a multiplier and the use of multiplicative reasoning are very important to pupils' confidence and fluency when working with percentages. Therefore, while you may be able to leave out some of the earlier questions in each exercise, be careful not to leave out too much or move on too fast.
	1.2 Percentage increases and decreases	1	<ul style="list-style-type: none"> To calculate the result of a percentage increase or decrease To choose the most appropriate method to calculate a percentage change 	
	1.3 Calculating the original value	1	<ul style="list-style-type: none"> Given the result of a percentage change, to calculate the original value 	
	1.4 Using percentages	1	<ul style="list-style-type: none"> To revise the links within fractions, decimals and percentages To choose the correct calculation to work out a percentage 	
	Challenge – The Royal Albert Hall	1		This challenge activity starts with a literacy activity and moves onto calculations involving time and percentages in a real-life situation. Pupils will need to have grasped the work on percentages from the chapter. Less able pupils may need a quick explanation of significant figures and days in a year before starting the activity. This activity could be linked to other subjects such as History.
2 Equations and formulae	2.1 Multiplying out brackets	1	<ul style="list-style-type: none"> To multiply out brackets 	Much of this chapter will be unfamiliar to pupils. However, some pupils may be familiar with expanding brackets. Check that all pupils can expand brackets fluently before moving on to the rest of the chapter. If pupils grasp the concepts quickly they can move on to the more challenging questions that are towards the end of each exercise in the Pupil Book.
	2.2 Factorising algebraic expressions	1	<ul style="list-style-type: none"> To factorise expressions 	
	2.3 Equations with brackets	1	<ul style="list-style-type: none"> To solve equations with one or more sets of brackets 	
	2.4 Equations with fractions	1	<ul style="list-style-type: none"> To solve equations involving fractions 	
	2.5 Formulae	1	<ul style="list-style-type: none"> To practise using formulae 	
	Financial skills – Wedding day	1		This financial skills activity gives pupils the opportunity to apply the skills they have learned in the chapter to a practical situation that many will encounter in the future. The cost formula used is often encountered in GCSE exams and it is important that pupils have a good grasp of this.
3 Polygons	3.1 Polygons	1	<ul style="list-style-type: none"> To know the names of polygons To know the difference between an irregular 	The material in this chapter is mainly new material. However, you could use one or two examples as a class discussion and then focus on the PS

	3.2 Angles in polygons		<ul style="list-style-type: none"> To work out the sum of the interior angles of a polygon 	and MR questions in each exercise of the Pupil Book plus the activities at the end of each lesson. In this way, you could combine Lesson 3.1 and Lesson 3.2.
	3.3 Interior angles of regular polygons	1	<ul style="list-style-type: none"> To work out the sizes of the interior angles in regular polygons 	
	Activity – Regular polygons and tessellations	1		For this activity, pupils learn about tessellations and use their knowledge of angles and polygons to find out if regular polygons will tessellate. Ask more able pupils to come up with solutions to combine polygons that don't tessellate with other polygons in order to make a tessellation pattern.
Holidays				
Half-term / Term 2				
4 Using data	4.1 Scatter graphs and correlation	1	<ul style="list-style-type: none"> To infer a correlation from two related scatter graphs 	Much of the material in the lessons of this chapter will be new to pupils. Lesson 4.3 and Lesson 4.4 could, however, be combined. Make certain that pupils have a good grasp of correlation and time series before moving on.
	4.2 Interpreting graphs and diagrams	1	<ul style="list-style-type: none"> To use and interpret a variety of graphs and diagrams 	
	4.3 Two-way tables 4.4 Comparing two or more sets of data	1	<ul style="list-style-type: none"> To interpret a variety of two-way tables To compare two sets of data from statistical tables and diagrams 	
	4.5 Statistical investigations	1	<ul style="list-style-type: none"> To plan a statistical investigation 	
	Challenge – Rainforest deforestation	1		This challenge does not intend to make any judgement values of the country or countries concerned. Instead, this activity has been devised to allow pupils to find what the statistics may suggest – in other words, that economic growth can affect the amount of deforestation.
<i>Chapters 1–4 assessment on Collins Connect</i>				
5 Application of graphs	5.1 The formula for the circumference of a circle	1	<ul style="list-style-type: none"> To calculate the circumference of a circle 	This chapter is mainly new material, so work through each lesson thoroughly.
	5.2 The formula for the area of a circle	1	<ul style="list-style-type: none"> To calculate the area of a circle 	
	5.3 Mixed problems	1	<ul style="list-style-type: none"> To solve problems involving the circumference and area of a circle 	
	Financial skills – Athletics stadium	1		This financial skills activity is designed to give pupils the opportunity to apply their knowledge to a multi-step real-life problem. The context is common, but is presented in a more complex way than pupils are used to.
6 Pythagoras' theorem	6.1 Scale factors and enlargements	1	<ul style="list-style-type: none"> To use a scale factor to show an enlargement 	This whole chapter will be new to pupils. However, it is possible to combine Lesson 6.2 and Lesson 6.3. More able pupils could then move on rapidly to Lesson 6.4 if they fully grasp the concepts and methods taught in this chapter.
	6.2 The centre of enlargement	2	<ul style="list-style-type: none"> To enlarge a shape about a centre of enlargement 	
	6.3 Enlargements on grids	1	<ul style="list-style-type: none"> To enlarge a shape on a coordinate grid 	
	Problem solving – Photographs	1		This problem solving activity is designed to give pupils the opportunity to apply their knowledge of enlargements to a multi-step real-life problem.
7 Fractions	7.1 Adding and subtracting fractions	1	<ul style="list-style-type: none"> To add or subtract any two fractions 	The material in Lesson 7.1 should be familiar to pupils. Check by working through some examples and then move on to Lesson 7.2. Lessons 7.3 and 7.4 are new but build on concepts that pupils have already met. You could combine these and focus on the more extended questions.
	7.2 Multiplying fractions	1	<ul style="list-style-type: none"> To multiply two fractions 	
	7.3 Dividing fractions	1	<ul style="list-style-type: none"> To divide one fraction by another 	

	Problem solving – The 2016 Olympic Games in Rio	1		In this problem solving activity pupils are required to apply their understanding of fractions to a more complex problem. Pupils need to work methodically and be able to explain their solutions.
<i>Chapters 5–7 assessment on Collins Connect</i>				
Holidays				
Half-term / Term 3				
8 Algebra	8.1 Expanding brackets	1	• To multiply out brackets with a variable outside them	All the work in this chapter will be new to pupils. However, you could fast-track those pupils who grasp the material quickly to the more challenging questions at the end of each exercise in the Pupil Book.
	8.2 Factorising algebraic expressions	1	• To factorise expressions	
	8.3 Expand and simplify	1	• To expand expressions with two brackets and simplify them	This challenge activity requires pupils to apply their learning in an unfamiliar context. Introduce it with some recent examples of treasure trove finds from the internet and get pupils to research the current price of gold per gram.
	Challenge – California gold	1		
9 Decimal numbers	9.1 Multiplication of decimals 9.2 Powers of 10	1	• To practise multiplying decimal numbers • To understand and work with both positive and negative powers of ten	The content of Lesson 9.1 should be familiar to pupils. Check understanding then move on to Lesson 9.2 on standard form. You could combine Lessons 9.3 and 9.4 by working through the examples and asking pupils to answer the MR and PS questions in Exercise 9C and 9D and/or the activity and investigation at the end of each exercise, respectively. Then move on to Lesson 9.5.
	9.3 Rounding suitably	1	• To round numbers, where necessary, to an appropriate or suitable degree of accuracy • To confirm ability to divide with decimals	
	9.4 Dividing decimals	1		
	9.5 Solving problems	1	• To solve real-life problems involving multiplication or division	
10 Surface area and volume of 3D shapes	Mathematical reasoning – Paper	1		All the information is provided in this mathematical reasoning activity, but it is quite complex. Pupils will need to read the questions very carefully to decide which information they need and what mathematical skills to use in each case.
	10.1 Surface area of cubes and cuboids	2	• To work out the surface area of cubes and cuboids	The material in this chapter will be new to pupils. However, you could combine Lessons 10.2 and 10.3.
	10.2 Volume of cubes and cuboids	1	• To use a simple formula to work out the volume of a cube and cuboid • To work out the capacity of a cube or cuboid	
	10.3 Volume of triangular prisms	1	• To work out the volume of a triangular prism	
	Investigation – A cube investigation	2		Pupils apply their understanding of area to a more complex problem in this investigation. They will need to work methodically and be able to explain their solutions. Start by introducing them to the use of isometric paper. Ask more able pupils to justify any rules they discover by revisiting the structure of the problem.
<i>Chapters 8–10 assessment on Collins Connect</i>				
11 Solving equations graphically	11.1 Graphs from equations in the form $y = mx + c$ 11.2 Problems involving straight-line graphs	1	• To draw any linear graph from any linear equation • To solve a linear equation from a graph • To draw graphs to solve some problems	The material in this chapter is complex and is likely to be new to many pupils. If pupils are confident and fluent with linear graphs and rearranging equations you could move straight on to Lesson 11.2. First, however, check pupils' understanding by giving them some examples.
	11.3 Solving simple quadratic equations by drawing graphs	1	• To solve a simple quadratic equation by drawing a graph	

	11.4 Problems involving quadratic graphs	1	<ul style="list-style-type: none"> To solve problems that use quadratic graphs 	
	Problem solving – Squirrels	2		This problem solving activity gives pupils the opportunity to involve themselves in the practical aspects of using data in real life contexts. Make sure pupils have a good understanding of correlation.
Holidays				
Half-term / Term 4				
12 Distance, speed and time	12.1 Distance 12.2 Speed	2	<ul style="list-style-type: none"> To work out the distance travelled in a certain time at a given speed To use and interpret distance-time graphs To work out the speed of an object, given the distance travelled and the time taken 	All the material in this chapter will be new to pupils. However, you could combine Lesson 12.1 and Lesson 12.2 to make it one lesson.
	12.3 Time	1	<ul style="list-style-type: none"> To work out the time an object will take on a journey, given its speed and the distance travelled 	
	Financial skills – Shopping at the market	1		This financial skills activity requires pupils to apply their learning from this chapter in an everyday, practical context. You could extend this activity by asking pupils to compare prices of the same product in different quantities from supermarket sites on the internet.
13 Similar triangles	13.1 Similar triangles	2	<ul style="list-style-type: none"> To understand what similar triangles are 	This chapter is new material and in many cases quite complex. Choose examples carefully to support or challenge pupils.
	13.2 A summary of similar triangles	1		
	13.3 Using triangles to solve problems	1	<ul style="list-style-type: none"> To understand that triangles can be used to solve some real problems 	
	Investigation – Barnes Wallis and the bouncing bomb	1		This investigation is an interesting application of the learning in this unit. Pupils may be familiar with the idea from films but will probably be surprised at its use here. This is a good opportunity to demonstrate links to other subjects, in this case history.
14 Revision and GCSE preparation	<ul style="list-style-type: none"> Practice Revision GCSE-type questions 	6	<p>This chapter is going to:</p> <ul style="list-style-type: none"> Help pupils to practise and revise topics covered in their current course Get pupils started on their GCSE course 	<p>The exercises in this chapter of the Pupil Book cover the following mathematical strands:</p> <ul style="list-style-type: none"> Algebra Geometry and measures Statistics Number <p>The material will provide excellent practice so that pupils become mathematically fluent. Encourage pupils to work through this whole chapter before their End of Year 9 tests.</p>
<i>Chapters 11–14 assessment on Collins Connect</i>				
<i>End of year assessment on Collins Connect</i>				