3-year scheme of work

The following scheme of work provides a suggestion for how Pupil Book 3.3 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	• To understand what is meant by simple interest • To solve problems involving simple interest	Pupils often struggle when they start using percentages that are greater than 100. Use real-life examples to help pupils overcome this. Start with percentages that pupils can work with comfortably.
	1.2 Percentage increases and decreases	1	• To use the multiplier method to calculate the result of a percentage increase or decrease • To calculate the percentage change in a value	Pupils need a good understanding of 100% as a whole before tackling percentage increases and decreases successfully. Use real-life examples and start with percentages that pupils can work with comfortably.
	1.3 Calculating the original value	2	• Given the result of a percentage change, to calculate the original value	This lesson continues to develop the concept of using percentage as an operator by looking at the inverse to calculate the percentage change or to calculate an initial value. Pupils will need to be fluent with this concept so that they are confident in applying their understanding of percentages to real-life problems. Encourage discussion to challenge any misconceptions.
	1.4 Repeated percentage changes	1	• To calculate the result of repeated percentage changes	Pupils often learn rules without really understanding them. This means that pupils may meet the different questions over time, and so may never have the opportunity to identify the type of question and make independent decisions about which method to use. Provide pupils with opportunities in a range of increasingly complex and unfamiliar situations
	Challenge – Exponential growth	2		This challenge activity gives pupils the opportunity to extend their learning by exploring the connected but unfamiliar context of exponential growth that links this lesson with other areas of mathematics, including the work in Chapter 5 (Applications of graphs).
2 Equations and formulae	2.1 Multiplying out brackets	1	• To expand brackets and simplify more complex expressions	This chapter builds on previous work on expanding a term over brackets, and recalls expansion of two such terms and simplification of the results by collecting like terms. This is an introduction to factorisation of terms into a bracket with a numerical and/or algebraic coefficient outside. Pupils are then shown how to factorise a quadratic expression. Finally, pupils will learn how to solve equations involving fractions.
	2.2 Factorising algebraic expressions	1	• To factorise more complex expressions	
	2.3 Expressions with several variables	1	• To expand and factorise expressions with more than one variable	
	2.4 Equations with fractions	1	• To solve equations where the variable is in the denominator of a fraction	
	Investigation – Body mass index	1		This investigation will help to embed the concepts and skills that pupils have learned in this chapter.
Chapters 1–2 assessment on Collins Connect				

3 Polygons	3.1 Properties of polygons	1	• To work out the sum of the interior angles of a polygon • To work out exterior angles of polygons	This chapter introduces pupils to finding the sums of the interior and exterior angles of polygons. Further work on regular polygons is discussed by using tessellations. Pupils apply their existing knowledge to solve geometrical reasoning introducing them to simple ideas of proof.
	3.2 Interior and exterior angles of regular polygons	1	• To calculate the interior and exterior angles of regular polygons	
	3.3 Tessellations and regular polygons	1	• To work out which regular polygons tessellate	
	Mathematical reasoning – Semi-regular tessellations	2		This activity is designed to give pupils the opportunity to apply what they have learnt about tessellation to a more complex problem. The activity combines work that pupils have done previously on angles, and in some cases algebra. Pupils will need to use this prior learning in ways with which they are familiar, but they will also need to extend what they know in order to support more detailed arguments.
Half-term
Half-term / Term 2
4 Using data	4.1 Scatter graphs and correlation	1	• To infer a correlation from two related scatter graphs • To draw a line of best fit to show a correlation	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 compare them. Pupils are introduced to cumulative frequency graphs and shown how to calculate the interquartile range. Finally, pupils will learn how to conduct their own investigations using the ideas from the first part of the chapter.
	4.2 Two-way tables	1	• To interpret a variety of two-way tables	
	4.3 Estimation of a mean from grouped data	1	• To estimate a mean from grouped data	
	4.4 Cumulative frequency diagrams	1	• To draw a cumulative frequency diagram • To find the interquartile range	Occasionally pupils forget to add the frequencies or make mistakes when doing so. Remind pupils that the last cumulative frequency value will be the same as the total frequency. Pupils may also forget to plot on the upper class width. Explain why we do this.
	4.5 Statistical investigations	1	• To plan a statistical investigation	
	Challenge – Census	1		In this challenge activity, pupils are required to apply their learning to a real-life situation. Ask pupils what they know about the national census.
5 Applications of graphs	5.1 Step graphs	1	• To interpret step graphs	Graphs are used in many real-life situations. The example given to introduce this chapter in the Pupil Book is to improve the performance of racing-car drivers. Their speed, at various points on the race track, is plotted on a graph, which is then analysed by the driver's team.
	5.2 Time graphs	2	• To interpret and draw time graphs	
	5.3 Exponential growth graphs	2	• To draw exponential growth graphs	
	Problem solving – Mobile phone tariffs	2		This activity uses the context of mobile phones, a topic that will be very familiar to pupils. However, pupils may not have thought of using graphs to make the best decisions about which tariff to buy.
Chapters 3–5 assessment on Collins Connect
6 Pythagoras' theorem	6.1 Introducing Pythagoras' theorem	2	• To use Pythagoras' theorem in right-angled triangles	This chapter teaches pupils about Pythagoras' theorem. First, pupils are introduced to the concept and then shown how to use the theorem to calculate both the hypotenuse and one of the adjacent sides. Next, pupils are shown how to use Pythagoras' theorem to solve problems. Finally, pupils are introduced to the converse of Pythagoras' theorem
	6.2 Using Pythagoras' theorem to solve problems	2	• Using Pythagoras' theorem to solve problems	

	6.3 The converse of Pythagoras' theorem	2	• To use the converse of Pythagoras' theorem	
	Activity – Practical Pythagoras	1		This practical activity will help to deepen pupils' understanding of Pythagoras' theorem.
Holidays
Half-term / Term 3
7 Fractions	7.1 Adding and subtracting fractions	1	• To choose an appropriate method to add or subtract mixed numbers	The number system has evolved from its initial use, which was simply for counting in positive whole numbers. Later, the number system was extended to include zero, which is very important as a place holder and for negative numbers and fractions. By now, pupils should have an understanding of the ordinal value of fractions as well as their use as operators. This chapter builds on the Year 8 work on fractions, including using mixed numbers in a range of situations, and extends this to include algebraic fractions.
	7.2 Multiplying fractions and mixed numbers	1	• To multiply two fractions or mixed numbers	
	7.3 Dividing fractions and mixed numbers	1	• To divide one fraction or mixed number by another fraction or mixed number	
	7.4 Algebraic fractions	1	• To add, subtract, multiply or divide fractions containing a variable	
	Investigation – Fractions from one to six	1		Pupils are required to apply their understanding of fractions to a more complex problem. They need to work methodically on the questions and be able to explain their solutions. This is a good transferable skills objective to share with pupils when doing this investigation. Ask pupils to share not only their solutions but also *how* they approached working on the problems.
8 Algebra	8.1 Expanding the product of two brackets	1	• To multiply out (or expand) two brackets	This chapter builds on previous work on expanding a term over a bracket. Pupils are then shown how to expand two and then three linear brackets to form a quadratic, and cubic expressions. Next, pupils learn how to factorise quadratic expressions before learning how to find the difference of two squares.
	8.2 Expanding expressions with more than two brackets	1	• To multiply out three or more brackets	
	8.3 Factorising quadratic expressions with positive coefficients	1	• To factorise quadratic expressions with positive coefficients	
	8.4 Factorising quadratic expressions with negative coefficients	1	• To factorise quadratic expressions with negative coefficients	
	8.5 The difference of two squares	1	• To recognise and use the difference of two squares	
	Challenge – Graphs from expressions	1		This challenge activity requires pupils to apply their learning from this chapter in a less familiar practical context.
Chapters 6–8 assessment on Collins Connect
9 Decimal numbers	9.1 Powers of 10	1	• To understand and work with both positive and negative powers of ten	Place value is a key concept in mathematics. The ability to understand place value is central to the ability to use numbers effectively when doing calculations in real life. The work in this chapter builds on pupils' existing knowledge. A good understanding of place value is also crucial to the extension to powers and significant figures. This chapter uses very large and very small numbers to introduce standard form, although pupils have briefly met the idea of using a concise method for representing numbers of this type. Pupils' understanding of approximation is also developed through the introduction of upper and lower bounds.
	9.2 Standard form	1	• To understand and work with standard form, using both positive and negative powers of ten	
	9.3 Multiplying with numbers in standard form	1	• To multiply numbers in standard form, using both positive and negative powers of ten	
	9.4 Dividing with numbers in standard form	1	• To divide numbers in standard form, using both positive and negative powers of ten	
	9.5 Upper and lower bounds	1	• To understand the limits of accuracy when using rounded data	

	Mathematical reasoning – To the stars and back	2		This activity uses the context of outer space, with which pupils may be familiar. Outer space provides the opportunity for complex use of the mathematics that pupils have learnt. In order to do the activity, pupils will need to draw on and combine learning across the chapter. All the information they need is provided in the text. However, pupils will need to read each question very carefully so that they can decide on what information and mathematical skills they should use.
Half-term				
Half-term / Term 4				
10 Surface area and volume of cylinders	10.1 Volume of a cylinder	1	• To calculate the volume of a cylinder	Pupils occasionally use mixed units when calculating the volume of a cylinder. Some pupils are confused by volume and surface area. Pupils occasionally forget to check that all of the units are the same before calculating, so remind pupils to provide units with their answer.
	10.2 Surface area of a cylinder	2	• To calculate the curved surface area of a cylinder • To calculate the total surface area of a cylinder	
	10.3 Composite shapes	2	• To calculate the volumes and surface areas of composite shapes	
	Problem solving – Packaging soup	2		This activity will help pupils to make their learning from this chapter relevant by applying it to a real-life situation.
Chapters 9–10 assessment on Collins Connect				
11 Solving equations graphically	11.1 Graphs from equations in the form *ay ± bx = c*	1	• To draw any linear graph from any linear equation • To solve a linear equation from a graph	There are all sorts of different equations that arise from real situations and pupils will meet some examples in this chapter. They will have met straight-line graphs and quadratics before but this chapter builds on this with more complex examples. It will introduce the idea that many equations that are used to model the real world are difficult to solve by algebraic methods and are more easily solved by drawing a graph.
	11.2 Solving simultaneous equations by drawing graphs	2	• To solve a pair of simultaneous equations by drawing graphs	
	11.3 Solving quadratic equations by drawing graphs	2	• To solve quadratic equations by drawing graphs	
	11.4 Solving cubic equations by drawing graphs	2	• To solve a cubic equation by drawing a graph	
	Challenge – Maximum packages	2		This activity is designed to give pupils the opportunity to apply what they have learnt in a familiar context. However, pupils are unlikely to have considered using graphs in this context before.
Holidays				
Half-term / Term 5				
12 Compound units	12.1 Speed	2	• To understand and use measures of speed	This chapter teaches pupils how to calculate with different measures. Pupils are introduced to the relationship between speed, distance and time, followed by the relationship between mass, density and volume. Pupils will learn how to solve problems involving these measures. Pupils will also learn how to solve financial problems using unit costs
	12.2 More compound units	2	• To understand and use density and other compound units	
	12.3 Unit costs	2	• To understand and use unit pricing	
	Challenge – Population density	1		This challenge activity requires pupils to apply their learning from this chapter in a less familiar practical context. Remind pupils about S.A.L.T. (scales, axes, labels, titles) when drawing graphs, along with the need for accuracy.
13 Right-angled triangles	13.1 Introduction to trigonometric ratios	2	• To understand what trigonometric ratios are	Trigonometry is the branch of mathematics that studies the relationships between the sides and angles of triangles. This chapter introduces these important properties of right-angled triangles and demonstrates how this can be used in real life situations such as estimating the *height of a tree*.
	13.2 How to find trigonometric ratios of angles	1	• To understand what the trigonometric ratios sine, cosine and tangent are	

	13.3 Using trigonometric ratios to find angles	1	• To find the angle identified from a trigonometric ratio	
	13.4 Using trigonometric ratios to find lengths	1	• To find an unknown length of a right-angled triangle given one side and an angle	
	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.
Chapters 11–13 assessment on Collins Connect				
14 Revision and GCSE preparation	• Practice • Revision • GCSE preparation: solving quadratic equations • GCSE-type questions	6	This chapter is going to: • Help pupils to practise and revise topics covered in their current course • Get pupils started on their GCSE course	The exercises in this chapter of the Pupil Book cover the following mathematical strands: • Number • Algebra • Geometry and measures • Statistics 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.
Chapter 14 assessment on Collins Connect				
End of year assessment on Collins Connect				

2-year scheme of work

The following scheme of work provides suggestions for teaching Pupil Book 3.3 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	• To understand what is meant by simple interest • 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. So, while you may be able to leave out some of the earlier questions in each exercise in the Pupil Book, be careful not to leave out too much or move on too fast.
	1.2 Percentage increases and decreases	1	• To use the multiplier method to calculate the result of a percentage increase or decrease • To calculate the percentage change in a value	
	1.3 Calculating the original value		• Given the result of a percentage change, to calculate the original value	
	1.4 Repeated percentage changes	1	• To calculate the result of repeated percentage changes	
	Challenge – Exponential growth	1		This challenge gives pupils the opportunity to extend their learning by making links to other areas of mathematics including the work in Chapter 5 (Applications of graphs).
2 Equations and formulae	2.1 Multiplying out brackets	1	• To expand brackets and simplify more complex expressions	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 with negative coefficients 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	• To factorise more complex expressions	
	2.3 Expressions with several variables	1	• To expand and factorise expressions with more than one variable	
	2.4 Equations with fractions	2	• To solve equations where the variable is in the denominator of a fraction	
	Investigation – Body mass index	1		This investigation will help to embed the concepts and skills that pupils have learned in this chapter.
Chapters 1–2 assessment on Collins Connect				
3 Polygons	3.1 Properties of polygons 3.2 Interior and exterior angles of regular polygons	1	• To work out the sum of the interior angles of a polygon • To work out exterior angles of polygons • To calculate the interior and exterior angles of regular polygons	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 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 Tessellations and regular polygons	1	• To work out which regular polygons tessellate	
	Mathematical reasoning – Semi-regular tessellations	1		This activity is designed to give pupils the opportunity to apply what they have learnt about tessellation to a more complex problem. The activity combines work that pupils have done previously on angles, and in some cases algebra. Pupils will need to use this prior learning

				Holidays	

				Holidays	
Half-term / Term 2					
4 Using data	4.1 Scatter graphs and correlation	1	• To infer a correlation from two related scatter graphs • To draw a line of best fit to show a correlation	Much of the material in the lessons of this chapter will be new to pupils. Lessons 4.3 and 4.4 could, however, be combined. Make certain that pupils have a good grasp of correlation and time series before moving on.	
	4.2 Two-way tables	1	• To interpret a variety of two-way tables		
	4.3 Estimation of a mean from grouped data 4.4 Cumulative frequency diagrams	1	• To estimate a mean from grouped data • To draw a cumulative frequency diagram • To find the interquartile range		
	4.5 Statistical investigations	1	• To plan a statistical investigation		
	Challenge – Census	1		In this challenge activity, pupils are required to apply their learning to a real-life situation.	
5 Application of graphs	5.1 Step graphs	1	• To interpret step graphs	The graphs in Lesson 5.1 are likely to be new but should be reasonably straightforward for pupils who are comfortable with graphs of $y = c$. Pupils may be familiar with the material in Lesson 5.2, so using the examples and activities at the end of each exercise in the Pupil Book, these lessons could be combined. Lesson 5.3 is new and contains potentially complex material on the exponential function.	
	5.2 Time graphs	1	• To interpret and draw time graphs		
	5.3 Exponential growth graphs	1	• To draw exponential growth graphs		
	Problem solving – Mobile phone tariffs	1		This activity uses the context of mobile phones, a topic that will be very familiar to pupil. However, pupils may not have thought of using graphs to make the best decisions about which tariff to buy.	
Chapters 3–5 assessment on Collins Connect					
6 Pythagoras' theorem	6.1 Introducing Pythagoras' theorem	1	• To use Pythagoras' theorem in right-angled triangles	This whole chapter is 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 Using Pythagoras' theorem to solve problems	2	• Using Pythagoras' theorem to solve problems		
	6.3 The converse of Pythagoras' theorem	1	• To use the converse of Pythagoras' theorem		
	Activity – Practical Pythagoras	1	•	This practical activity will help to deepen pupils' understanding of Pythagoras' theorem.	
7 Fractions	7.1 Adding and subtracting fractions	1	• To choose an appropriate method to add or subtract mixed numbers	The material in Lesson 7.1 should be familiar to pupils. Check by giving pupils some examples and then move on to Lesson 7.2. The class may also be familiar with the material in lessons 7.2 and 7.3. Check with a couple of examples and if pupils are confident then combine the two lessons, focussing on the MR and PS questions and/or the activities at the end of exercises 7B and 7C in the Pupil Book. Before starting Lesson 7.4, make sure that pupils are familiar with the concept of cross-multiplication to find the numerator when adding or subtracting more complex fractions. You could use Example 1 on page 111 of the Pupil Book for this.	
	7.2 Multiplying fractions and mixed numbers	1	• To multiply two fractions or mixed numbers		
	7.3 Dividing fractions and mixed numbers 7.4 Algebraic fractions	1	• To divide one fraction or mixed number by another fraction or mixed number • To add, subtract, multiply or divide fractions containing a variable		

	Investigation – Fractions from one to six	1		In this investigation, 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.
			Holidays	
			Half-term / Term 3	
8 Algebra	8.1 Expanding the product of two brackets	1	• To multiply out (or expand) two brackets	The material in this whole chapter is new. However, you might find that it is possible to combine lessons 8.1 and 8.2 into one lesson, and likewise for lessons 8.3 and 8.4.
	8.2 Expanding expressions with more than two brackets	1	• To multiply out three or more brackets	
	8.3 Factorising quadratic expressions with positive coefficients	1	• To factorise quadratic expressions with positive coefficients	
	8.4 Factorising quadratic expressions with negative coefficients	1	• To factorise quadratic expressions with negative coefficients	
	8.5 The difference of two squares	1	• To recognise and use the difference of two squares	
	Challenge – Graphs from expressions	1		This challenge activity requires pupils to apply their learning from this chapter in a less familiar practical context.
Chapters 6–8 assessment on Collins Connect				
9 Decimal numbers	9.1 Powers of 10 9.2 Standard form	1	• To understand and work with both positive and negative powers of ten • To understand and work with standard form, using both positive and negative powers of ten	The content of Lesson 9.1 should be familiar to pupils. Check by asking pupils to do PS questions 10 to 13 of Exercise 9A in the Pupil Book. If you are happy with pupils' work, then move on to Lesson 9.2 on standard form. You could combine lessons 9.3 and 9.4 by using the PS and MR questions, and/or the activities at the end of exercises 9C and 9D. Finally, move on to Lesson 9.5.
	9.3 Multiplying with numbers in standard form 9.4 Dividing with numbers in standard form	1	• To multiply numbers in standard form, using both positive and negative powers of ten • To divide numbers in standard form, using both positive and negative powers of ten	
	9.5 Upper and lower bounds	1	• To understand the limits of accuracy when using rounded data	
	Mathematical reasoning – To the stars and back	1		This activity uses the context of outer space, with which pupils may be familiar. Outer space provides the opportunity for complex use of the mathematics that pupils have learnt. In order to do the activity, pupils will need to draw on and combine learning across the chapter. All the information they need is provided in the text. However, pupils will need to read each question very carefully so that they can decide on what information and mathematical skills they should use.
10 Surface area and volume of cylinders	10.1 Volume of a cylinder	1	• To calculate the volume of a cylinder	The material in this chapter will be new to pupils. However, depending on your pupils, you could combine Lesson 10.1 and Lesson 10.2.
	10.2 Surface area of a cylinder	1	• To calculate the curved surface area of a cylinder • To calculate the total surface area of a cylinder	
	10.3 Composite shapes	2	• To calculate the volumes and surface areas of composite shapes	

	Problem solving – Packaging soup	1		This activity will help pupils to make their learning in this chapter relevant by applying it to a real-life situation.
Chapters 9–10 assessment on Collins Connect				
11 Solving equations graphically	11.1 Graphs from equations in the form $ay \pm bx = c$ 11.2 Solving simultaneous equations by drawing graphs	1	• To draw any linear graph from any linear equation • To solve a linear equation from a graph • To solve a pair of simultaneous equations by drawing graphs	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 quadratic equations by drawing graphs	1	• To solve quadratic equations by drawing graphs •	
	11.4 Solving cubic equations by drawing graphs	1	• To solve a cubic equation by drawing a graph	
	Challenge – Maximum packages	2		This activity is designed to give pupils the opportunity to apply what they have learnt in a familiar context. However, pupils are unlikely to have considered using graphs in this context before.
Holidays				
Half-term / Term 4				
12 Compound units	12.1 Speed 12.2 More compound units	2	• To understand and use measures of speed • To understand and use density and other compound units	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 Unit costs	1	• To understand and use unit pricing	
	Challenge – Population density	1		This challenge activity requires pupils to apply their learning from this chapter in a less familiar practical context. Remind pupils about S.A.L.T. (scales, axes, labels, titles) when drawing graphs, along with the need for accuracy.
13 Right-angled triangles	13.1 Introduction to trigonometric ratios	2	• To understand what trigonometric ratios are	This chapter is new material and in many cases quite complex. Choose examples carefully to support or challenge pupils. If your class seems confident, you could combine Lesson 13.4 and Lesson 13.5, but choose examples carefully.
	13.2 How to find trigonometric ratios of angles	1	• To understand what the trigonometric ratios sine, cosine and tangent are	
	13.3 Using trigonometric ratios to find angles	1	• To find the angle identified from a trigonometric ratio	
	13.4 Using trigonometric ratios to find lengths	1	• To find an unknown length of a right-angled triangle given one side and an angle	
	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.
Chapters 11–13 assessment on Collins Connect				

14 Revision and GCSE preparation	• Practice • Revision • GCSE preparation: solving quadratic equations • GCSE-type questions	4	This chapter is going to: • Help pupils practise and revise topics covered in your current course • Get pupils started on their GCSE course	The exercises in this chapter of the Pupil Book cover the following mathematical strands: • Number • Algebra • Geometry and measures • Statistics 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.
Chapter 14 assessment on Collins Connect				
End of year assessment on Collins Connect				