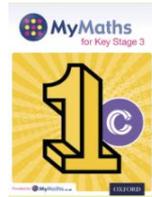


Dear Parent,

The aim of this document is to give an insight into the online resources available to aid students through the Key Stage 3 (Years 7-9) Mathematics syllabus. The content and detail of the syllabus can be found in the Progress Ladders available to download from the Mathematics department web page.

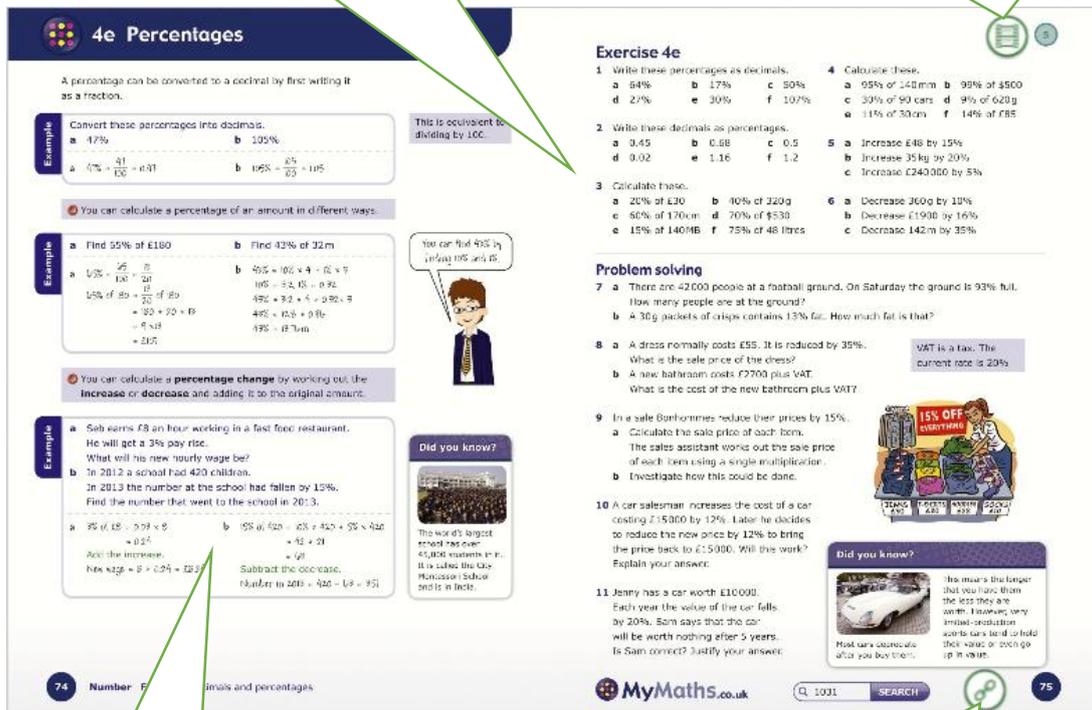


Students have access to a series of digital books (**MyMaths for Key Stage 3**) through their Kerboodle account. Several subjects utilise the Kerboodle platform and students may have access to several courses through it. Year 7 primarily use books 1b and 1c, Year 8 2b and 2c and Year 9 3b and 3c. Just like the paper copy of the textbook the digital versions contain examples, banks of questions and answers. It is an interactive text which has video linked examples (InvisiPen) that explain and illustrate the skills needed in each chapter. It also has direct links to the relevant areas of MyMaths. It is a 'one stop shop' for students who need further practice or explanation.

To understand what this resource has to offer it is of course best to login and look at it, but I hope the following pages give some indication of what is available.

Question banks are in two sections. The first practises the fluency and skills required by the topic. The second develops problem solving.

Clicking the *InvisiPen* symbol will take you to a video tutorial explaining how to do a similar questions.



The screenshot shows a page titled '4e Percentages' with various mathematical exercises and examples. Key features include:

- Example 1:** Convert percentages to decimals. Example:  $47\% = \frac{47}{100} = 0.47$ . Exercise 4e asks to convert 17%, 105%, 4%, 13%, 195%, 2%, 107%, 0.45, 0.58, 0.5, 0.02, 1.16, 1.2 to decimals.
- Example 2:** Calculate percentages of amounts. Example: Find 55% of £180. Exercise 4e asks to find 42% of 32m, 15% of 80, 20% of 80, 40% of 20, 15% of 18, 40% of 100, 15% of 420, 20% of 420, 15% of 420, 20% of 420.
- Example 3:** Calculate percentage change. Example: A salary of £8 an hour increases by 3%. Exercise 4e asks to find the new salary, the number of children in 2013, and the number of people at a football ground.
- Exercise 4e:** A collection of 12 questions covering percentages, decimals, and problem solving.
- Problem solving:** Questions 7, 8, 9, 10, and 11 involving real-world scenarios like VAT, discounts, and car depreciation.
- Annotations:** Green callouts explain that the first section of exercises focuses on fluency and skills, the second on problem solving, and that the 'InvisiPen' icon links to video tutorials. A note at the bottom states that the worked examples are traditional and common to all textbooks.

There are the traditional worked examples common to all textbooks.

Clicking MyMaths link symbol will take them directly to the the correct lessons and worksheets in MyMaths

The InvisiPen video tutorials not only explain how to do the questions, but can provide an excellent set of practice questions. If the student plays the video, but pauses it before the solutions are gone through, they can then try to answer the questions. They can then play the video through to check their answers. If they need just the first step in order to start their solution they could play the video through and pause it any point before continuing themselves.

**MyMaths for Key Stage 3**

Write these fractions as percentages.

a  $\frac{17}{100} = 17\%$

b  $\frac{3}{10} = \frac{30}{100} = 30\%$

c  $\frac{9}{25} = \frac{36}{100}$

d  $\frac{133}{200}$

A percentage is a fraction with a denominator of 100.

$25 \times 4 = 100$   
 $9 \times 4 = 36$

As the solution is revealed there is an audio commentary explaining the reasoning behind the working.

00:48 / 03:29

At the end of each chapter is very useful MySummary section of the key points for that topic (very like the proficiency statements in the electronic student profile book). Also useful is the glossary of terms that the student should learn.

### 4 MySummary

**Check out**  
You should now be able to ...

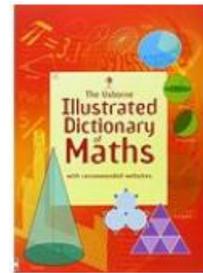
✓ Use fraction notation and simplify fractions.	5	1
✓ Add and subtract fractions.	5	2
✓ Change between fractions, decimals and percentages.	5	3 - 9
✓ Find fractions and percentages of amounts.	5	10 - 13

**Test it** → Questions

Language	Meaning	Example
<b>Common denominator</b>	A common denominator means the same denominator.	To find $\frac{2}{3} + \frac{1}{4}$ write as equivalent fractions with the same denominator.
<b>Equivalent fraction</b>	Equivalent fractions show the same proportion.	$\frac{2}{3}$ and $\frac{4}{6}$ are equivalent fractions.
<b>Improper fraction</b>	An improper fraction is a fraction where the numerator is greater than the denominator.	$\frac{5}{3}$ is an improper fraction.
<b>Mixed number</b>	A mixed number is a whole number followed by a fraction.	$4\frac{2}{3}$ is a mixed number.
<b>Percentage</b>	A percentage gives you the proportion per hundred.	47% means $\frac{47}{100}$
<b>Terminating Decimal</b>	A terminating decimal comes to an end.	$\frac{17}{20}$ converts to the terminating decimal 0.85.

On the adjacent page to the MySummary is always a MyReview section designed to practise the skills associated with that Chapter. This is always a useful question bank for any student brushing up before an assessment.

If you wish to support your child further in their pursuit of learning the wonderful subject of Mathematics, we can recommend the The Usborne Illustrated Dictionary of Maths. This is a clearly written reference book which will help them all the way through to their GCSEs, however, it is NOT a school requirement. Additionally, any of the books for the series 'Murderous Maths' by Poskitt Kjartan would help to broaden a love of the subject for any budding young Mathematicians.



These resources are there to help students, but if after using them they still find they are in need of help, their first port of call is of course their teacher or lunchtime support which is available every day in room M5 .

It is our aim that together with support from staff and parents alike our children can become better problem solvers and better independent learners, which will hopefully place them in a strong position to start the new Mathematics GCSE at the end of their Key Stage 3 in the latter terms of Year 9.

*Lrawnsley*

Mrs L Rawnsley

Key Stage 3 Mathematics

Bourne Grammar School