

**Mathematics**

**National 5**

**Applications of Maths**

**Entry Booklet**

Plan

We will be working through a few topics from further down the school that will help you with the National 5 Applications of Maths course. These topics will be very important to your success in National 5 Applications of Maths and we will be assuming these are complete by your return to school. For the month of May you can ask questions by emailing [maths@coltnesshigh.n-lanark.sch.uk](mailto:maths@coltnesshigh.n-lanark.sch.uk) and we will create a Microsoft Team when we have a list of those who have picked National 5 Applications of Maths.

Each of these topics have been chosen as they are the building blocks of the course. Some of the concepts you will have work on a lot during your time in secondary school, others you have not worked on as much. We will make sure that this knowledge is secure to improve your chances of success completing this course.

Resources

I have linked all the resources needed for each topic and we can also use the Leckie & Leckie National 5 Applications of Maths textbook for extra practice. You can access the textbook via the website <https://connect.collins.co.uk/school/defaultlogin.aspx> and using the login details below:

Username – COLTNESS1Student

Password – P@55word

For each topic there will be an Instructional Video as well as Worksheets and Example Exam Type Questions.

**Whole Numbers and Decimals (10 Periods)**

Teaching Slides Textbook Work

[Whole Numbers](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/N5_Numeracy/N5_Numeracy_Ch1_Whole_Numbers.pps) [Decimal Numbers](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/N5_Numeracy/N5_Numeracy_Ch2_Decimals.pps) [Whole Numbers](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1110087/Solvingproblems) [Decimal Numbers](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1110099/Solvingproblemsinvolvingdecimalfractions)

[Multiplying and Dividing Whole Numbers](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111184/Wholenumbers)

[Multiplying and Dividing by 10,100,1000](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111183/Multiplyinganddividingby10,100and1000)

Instructional Videos

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Addition | Subtraction | Multiplication | Division |
| Whole Numbers | [Addition](https://corbettmaths.com/2013/12/19/addition-video-6/) | [Subtraction](https://corbettmaths.com/2013/12/19/subtraction-video-304/) | [Multiplication](https://corbettmaths.com/2013/02/15/multiplication-traditional/)  [Multiplication by 10,100,1000](https://corbettmaths.com/2013/06/06/multiplication-by-10-100-and-1000-2/) | [Division](https://corbettmaths.com/2013/12/28/division-video-98/)  [Division by 10,100,1000](https://corbettmaths.com/2013/05/19/division-by-10-100-and-1000/) |
| Decimals | [Addition](https://corbettmaths.com/2013/03/28/adding-decimals/) | [Subtraction](https://corbettmaths.com/2013/03/28/subtracting-decimals/) | [Multiplication](https://corbettmaths.com/2013/02/15/multiplying-decimals-2/) | [Division](https://corbettmaths.com/2012/08/21/dividing-decimals-by-whole-numbers/) |

Worksheets

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Addition | Subtraction | Multiplication | Division |
| Whole Numbers | [Addition](https://corbettmaths.com/wp-content/uploads/2013/02/addition-pdf4.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2018/09/Subtraction-pdf.pdf) | [Multiplication 1](https://corbettmaths.com/wp-content/uploads/2018/01/multiplication-1-pdf.pdf)  [Multiplication 2](https://corbettmaths.com/wp-content/uploads/2018/01/multiplication-2-pdf.pdf)  [Multiplication by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2018/09/Multiplication-by-10-100-1000-pdf.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2018/01/division-pdf.pdf)  [Dividing by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2018/01/dividing-by-10-100-1000-pdf.pdf) |
| Decimals | [Addition](https://corbettmaths.com/wp-content/uploads/2018/09/Adding-Decimals-pdf.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2018/09/Subtracting-Decimals-pdf.pdf) | [Multiplication](https://corbettmaths.com/wp-content/uploads/2018/01/multiplying-decimals-textbook-pdf.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2018/11/Dividing-Decimals-by-whole-numbers-pdf.pdf) |

Answers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Addition | Subtraction | Multiplication | Division |
| Whole Numbers | [Addition](https://corbettmaths.com/wp-content/uploads/2019/08/Addition-column.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2018/09/Subtraction-%E2%80%93-Video-304-Answers-1.pdf) | [Multiplication 1](https://corbettmaths.com/wp-content/uploads/2019/08/Multiplication-1.pdf)  [Multiplication 2](https://corbettmaths.com/wp-content/uploads/2019/08/Multiplication-2.pdf)  [Multiply by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2019/10/multiply-by-10-100-1000.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2019/08/Division-short.pdf)  [Division by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2019/08/Division-by-10-100-1000.pdf) |
| Decimals | [Addition](https://corbettmaths.com/wp-content/uploads/2018/09/Adding-Decimals-Answers.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2018/09/Subtracting-Decimal-Answers.pdf) | [Multiplication](https://corbettmaths.com/wp-content/uploads/2019/08/Multiplying-decimals.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2018/11/Dividing-Decimals-by-Whole-Numbers-answers.pdf) |

Example Exam Questions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Addition | Subtraction | Multiplication | Division |
| Whole Numbers | [Addition](https://corbettmaths.com/wp-content/uploads/2013/02/addition-pdf2.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2013/02/subtraction-pdf.pdf) | [Multiplication](https://corbettmaths.com/wp-content/uploads/2013/02/multiplication-pdf1.pdf)  [Multiply/Divide by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2013/02/multiply-divide-by-10-100-1000-pdf.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2013/02/division-pdf1.pdf)  [Multiply/Divide by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2013/02/multiply-divide-by-10-100-1000-pdf.pdf) |
| Decimals | [Addition or Subtraction](https://corbettmaths.com/wp-content/uploads/2013/02/decimals-addition-subtraction-pdf.pdf) | [Addition or Subtraction](https://corbettmaths.com/wp-content/uploads/2013/02/decimals-addition-subtraction-pdf.pdf) | [Multiplying and Dividing](https://corbettmaths.com/wp-content/uploads/2013/02/decimals-multiplying-and-dividing.pdf) | [Multiplying and Dividing](https://corbettmaths.com/wp-content/uploads/2013/02/decimals-multiplying-and-dividing.pdf) |

Example Exam Questions Answers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Addition | Subtraction | Multiplication | Division |
| Whole Numbers | [Addition](https://corbettmaths.com/wp-content/uploads/2015/03/addition.pdf) | [Subtraction](https://corbettmaths.com/wp-content/uploads/2015/03/subtraction.pdf) | [Multiplication](https://corbettmaths.com/wp-content/uploads/2015/03/column-method.pdf)  [Multiply/Divide by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2015/03/mult-divide-10-100-1000.pdf) | [Division](https://corbettmaths.com/wp-content/uploads/2015/03/division.pdf)  [Multiply/Divide by 10,100,1000](https://corbettmaths.com/wp-content/uploads/2015/03/mult-divide-10-100-1000.pdf) |
| Decimals | [Addition or Subtraction](https://corbettmaths.com/wp-content/uploads/2015/03/decimals-addition-subtraction.pdf) | [Addition or Subtraction](https://corbettmaths.com/wp-content/uploads/2015/03/decimals-addition-subtraction.pdf) | [Multiplying and Dividing](https://corbettmaths.com/wp-content/uploads/2015/03/decimals-division-multiplication.pdf) | [Multiplying and Dividing](https://corbettmaths.com/wp-content/uploads/2015/03/decimals-division-multiplication.pdf) |

**Fractions (8 Periods)**

Teaching Slides Textbook Work

[Fractions (Simplifying)](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_2a_2b/Level_2_TJ2a_Ch11_Fractions.pps) [Simplifying Fractions](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1110139/Equivalentfractionsandsimplestform) [Add/Subtract (Easy)](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111244/Addingandsubtractingfractionswithacommondenominator) [Add/Subtract (Harder)](https://connect.collins.co.uk/CourseplayerCLP/ScormCoursePlayer.aspx?rids=Amv%2f8e1JYFM%3d%2c2%2bPWSP7i%2bdY%3d%2cen%2cfZRcwl4Xp3U%3d%2cRKQ80oM78lg%3d%2c1ZAZSnFjUxs%3d&isPUpdt=Izn0i4C2XBw=&IsAchRead=Izn0i4C2XBw=&IsAttampt=Izn0i4C2XBw=)

[Fractions excluding Multiplication](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/N5_Numeracy/N5_Numeracy_Ch4_Fractions.pps) [Improper to Mixed Number Fractions](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111250/Convertingimproperfractionstomixednumbers)

[Mixed Number to Improper Fractions](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111249/Convertingmixednumberstoimproperfractions)

Instructional Videos

[Simplifying Fractions](https://corbettmaths.com/2013/03/03/simplifying-fractions-2/)

[Improper to Mixed Number Fractions](https://corbettmaths.com/2013/02/15/improper-fractions-to-mixed-numbers/) [Mixed Number to Improper Fractions](https://corbettmaths.com/2013/02/15/mixed-numbers-to-improper-fractions/)

[Add/Subtract Fractions (Easy)](https://corbettmaths.com/2013/02/15/adding-fractions-same-denominator/) [Add/Subtract Fractions (Harder)](https://corbettmaths.com/2012/08/21/fractions-addition-and-subtraction/)

Worksheets

[Simplifying Fractions](https://corbettmaths.com/wp-content/uploads/2013/02/simplifying-fractions-pdf1.pdf) [Simplifying Fractions Answers](https://corbettmaths.com/wp-content/uploads/2017/05/simplifying-fractions-answers.pdf)

[Improper and Mixed Number Fractions](https://corbettmaths.com/wp-content/uploads/2018/12/Improper-Fractions-and-Mixed-Numbers.pdf) [Improper and Mixed Number Fractions Answers](https://corbettmaths.com/wp-content/uploads/2018/12/Improper-Fractions-Mixed-Numbers-Answers.pdf)

[Add/Subtract Fractions (Easy)](https://corbettmaths.com/wp-content/uploads/2018/11/Fractions-Addition-1-pdf.pdf) [Add/Subtract Fractions (Easy) Answers](https://corbettmaths.com/wp-content/uploads/2018/11/Adding-Fractions-Same-Denominators-Answers.pdf)

[Add/Subtract Fractions (Hard)](https://corbettmaths.com/wp-content/uploads/2018/11/Fractions-Addition-2-pdf.pdf) [Add/Subtract Fractions (Harder) Answers](https://corbettmaths.com/wp-content/uploads/2018/11/Adding-Fractions-answers-pdf.pdf)

Example Exam Type Questions

[Simplifying Fractions](https://corbettmaths.com/wp-content/uploads/2013/02/fractions-pdf.pdf) [Simplifying Fractions Answers](https://corbettmaths.com/wp-content/uploads/2015/03/fractions.pdf)

[Improper and Mixed Number Fractions](https://corbettmaths.com/wp-content/uploads/2013/02/top-heavy-mixed-numbers-pdf.pdf) [Improper and Mixed Number Fractions Answers](https://corbettmaths.com/wp-content/uploads/2015/03/mixed-numbers.pdf)

[Add/Subtract Fractions (Easy)](https://corbettmaths.com/wp-content/uploads/2013/02/fractions-same-denominator-pdf.pdf) [Add/Subtract Fractions (Easy) Answers](https://corbettmaths.com/wp-content/uploads/2015/03/same-denominator.pdf)

[Add/Subtract Fractions (Harder)](https://corbettmaths.com/wp-content/uploads/2013/02/addition-of-fractions-pdf1.pdf) [Add/Subtract Fractions (Harder) Answers](https://corbettmaths.com/wp-content/uploads/2018/09/Adding-Fractions-answers.pdf)

**Percentages (4 Periods)**

Teaching Slides Textbook Work

[Percentages](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_TJ3a_Ch6_FDP.pps) [Percentages (Non-Calc and Calc)](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111237/Percentagesofquantities) [Increase/Decrease Percentages](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1111237/Percentagesofquantities)

Instructional Videos

[Non-Calculator](https://corbettmaths.com/2012/08/20/percentages-of-amounts-non-calculator/) [Calculator](https://corbettmaths.com/2013/02/15/percentages-of-an-amount-calculator/) [Increase/Decrease Percentages](https://corbettmaths.com/2012/08/21/increasing-or-decreasing-by-a-percentage/)

Worksheets

[Non-Calculator](https://corbettmaths.com/wp-content/uploads/2018/11/Percentages-of-amounts-234-pdf.pdf) [Calculator](https://corbettmaths.com/wp-content/uploads/2013/02/percentages-calc-pdf.pdf) [Increase/Decrease Percentages](https://corbettmaths.com/wp-content/uploads/2018/11/Increasing-by-a-Percentage-pdf.pdf)

Answers

[Non-Calculator](https://corbettmaths.com/wp-content/uploads/2018/11/Percentage-of-an-amount-non-calc.pdf) [Calculator](https://corbettmaths.com/wp-content/uploads/2019/08/Percentage-of-amount-calc.pdf) [Increase/Decrease Percentages](https://corbettmaths.com/wp-content/uploads/2018/11/Increasing_Decreasing-By-a-Percentage-1.pdf)

Example Exam Type Questions

[Non-Calculator](https://corbettmaths.com/wp-content/uploads/2013/02/percentage-of-an-amount-non-calculator-pdf1.pdf) [Calculator and Increase/Decrease Percentages](https://corbettmaths.com/wp-content/uploads/2013/02/percentage-of-an-amount-calculator-pdf.pdf)

Answers

[Non-Calculator](https://corbettmaths.com/wp-content/uploads/2015/03/percentages-non-calc.pdf) [Calculator and Increase/Decrease Percentages](https://corbettmaths.com/wp-content/uploads/2016/02/percentages-answers.pdf)

**Fractions, Decimals and Percentages (2 Periods)**

Teaching Slides Textbook Work

[FDP](http://www.mathsrevision.com/index_files/Maths/Presentations/S1_Presentations/BGE_TJ_3a_3b/Level_3_TJ3a_Ch6_FDP.pps) [Fractions and Decimals](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1110126/Fractionsanddecimals)

[Percentages](https://connect.collins.co.uk/CourseplayerCLP/CLP-resources/1110129/Percentages)

Instructional Videos

[Fractions to Percentages](https://corbettmaths.com/2013/03/29/fractions-to-percentages/)

[Percentages to Fractions](https://corbettmaths.com/2012/08/20/percentages-to-fractions/)

Worksheets

[Fractions to Percentages](https://corbettmaths.com/wp-content/uploads/2018/11/Fractions-to-Percentages-pdf.pdf) [Fractions to Percentages Answers](https://corbettmaths.com/wp-content/uploads/2018/11/Fractions-to-Percentages-1.pdf)

[Percentages to Fractions](https://corbettmaths.com/wp-content/uploads/2018/09/Percentages-to-Fractions-pdf.pdf) [Percentages to Fractions Answers](https://corbettmaths.com/wp-content/uploads/2018/09/Percentages-to-Fractions-answers.pdf)

Example Exam Type Questions

[Converting Between %ages and Fractions](https://corbettmaths.com/wp-content/uploads/2013/02/percentages-fractions-pdf.pdf) [Converting Between %ages and Fractions Answers](https://corbettmaths.com/wp-content/uploads/2015/03/fractions-percentages.pdf)