MATHEMATICS REMOTE WORKING 2020-21: TERM 5

If you are absent from school, for example because you are self-isolating, you should aim to complete the tasks below in each week in addition to the home learning activities posted on Class Charts.

YEAR 7

Week Commencing	Activities
20/4/21	**Topic: Angles and Polygons**
	- **Title: Recognise and draw different types of angles**
	Watch these videos:
	https://app.mymaths.co.uk/256-lesson/angle-sums
	https://corbettmaths.com/2013/03/16/estimating-angles/
	Then complete this worksheet:
	https://corbettmaths.com/wp-content/uploads/2013/02/angles-pdf.pdf
	- **Title: Find angles on a line, around a point and vertically opposite angles**
	Watch these three short videos about finding angles:
	https://corbettmaths.com/2013/12/19/angles-straight-line-video-35/
	https://corbettmaths.com/2012/08/10/angles-in-a-full-circle/
	https://corbettmaths.com/2013/03/16/vertically-opposite-angles/
	Then complete questions 4 and 5 from the worksheet:
	https://corbettmaths.com/wp-content/uploads/2013/02/angle-facts-pdf1.pdf
	- **Find angles in a triangle**
	Complete these MyMaths lessons
	https://app.mymaths.co.uk/256-lesson/angle-sums
	https://app.mymaths.co.uk/257-lesson/angle-reasoning
26/4/21	**Topic: Angles and Polygons**
	- **Find angles in a quadrilateral**
	Watch this video:
	https://corbettmaths.com/2013/03/17/angles-in-quadrilaterals/
	Complete questions 1 and at least one other questions from this worksheet:
	https://corbettmaths.com/wp-content/uploads/2013/02/angles-in-a-quadrilateral-pdf2.pdf
	- **Types of quadrilaterals**
	Complete these Oak Academy lessons:
	https://classroom.thenational.academy/lessons/comparing-quadrilaterals-cmt66t
	https://classroom.thenational.academy/lessons/internal-angles-in-a-quadrilateral-cguk8t
	- **Find interior and exterior angles in a polygon**
	Watch the following video about angles in polygons:
	https://corbettmaths.com/2012/08/10/angles-in-polygons/
	Then complete the following two lessons from Oak Academy:
	https://teachers.thenational.academy/lessons/finding-missing-angles-in-polygons-6wvp8r
	https://classroom.thenational.academy/lessons/exterior-angles-c9jkce
3/5/21	**Topic: Angles and Polygons**
	- **Alternate angles and angles in parallel lines**
	- **Solving geometric problems with angles**
	Watch this video
	https://corbettmaths.com/2013/04/04/parallel-lines-angles/
	Then complete this worksheet;

	https://corbettmaths.com/wp-content/uploads/2013/02/angles-parallel-lines-pdf.pdf
10/5/21	**Topic: Fractions** - **Introducing fractions and different interpretations** Complete these two lessons on understanding fraction: https://classroom.thenational.academy/lessons/equal-parts-of-a-whole-6gv38c https://classroom.thenational.academy/lessons/fractions-and-units-of-measure-6nh36t - **Similar and equivalent fractions** - **Mixed number and improper fractions** Complete these three lessons: https://teachers.thenational.academy/lessons/equivalent-fractions-ccu6ae https://classroom.thenational.academy/lessons/comparing-fractions-part-1-6nk3gr https://classroom.thenational.academy/lessons/comparing-fractions-part-2-ccr6ce
17/5/21	**Topic: Fractions** - **Adding and subtracting fractions** Complete these two lessons: https://classroom.thenational.academy/lessons/adding-and-subtracting-fractions-part-1-75h66d https://classroom.thenational.academy/lessons/adding-and-subtracting-fractions-part-2-6wu30c Complete this lesson if you would like some more practice: https://classroom.thenational.academy/lessons/adding-and-subtracting-fractions-part-3-70r6cd - **Multiplying and dividing fractions** Multiplying: https://teachers.thenational.academy/lessons/using-area-models-to-multiply-fractions-6rt3ec Dividing: https://classroom.thenational.academy/lessons/modelling-fractions-by-division-part-1-70vp8r https://classroom.thenational.academy/lessons/modelling-fractions-by-division-part-2-61gk2e
24/5/21	**Topic: Fractions** - **More practice of the above** Watch these videos as a refresher on multiplying and dividing: https://corbettmaths.com/2012/08/21/multiplying-fractions-2/ https://corbettmaths.com/2012/08/21/division-with-fractions/ Then complete these questions: https://corbettmaths.com/wp-content/uploads/2013/02/multiplying-dividing-fractions-pdf.pdf - **Problem solving with fractions** **https://classroom.thenational.academy/lessons/fractions-and-distributivity-6rw3jc**

YEAR 8

Week Commencing	Activities
20/4/21	**Units and Measure** Converting units of length: 1) https://classroom.thenational.academy/lessons/converting-between-units-of-length-cgr32e 2) https://classroom.thenational.academy/lessons/converting-between-metric-units-of-length-6cu3cc 3) https://classroom.thenational.academy/lessons/solving-problems-involving-converting-between-metric-units-of-length-cmwk6c Converting units of mass 1) https://classroom.thenational.academy/lessons/converting-between-units-of-metric-mass-6ww38d 2) https://classroom.thenational.academy/lessons/solving-problems-involving-converting-between-units-of-metric-mass-69h66e Metric and imperial conversions 1) https://classroom.thenational.academy/lessons/converting-between-miles-and-km-c4rk4t 2) https://classroom.thenational.academy/lessons/solving-problems-involving-converting-between-miles-and-km-ctgket 3) https://classroom.thenational.academy/lessons/understanding-pounds-and-converting-kilograms-to-pounds-74u3ge 4) https://classroom.thenational.academy/lessons/solving-problems-involving-the-conversion-between-lb-and-kg-crv32r Extension: https://classroom.thenational.academy/lessons/solving-problems-involving-various-units-of-measure-68v3ae
26/4/21	**Topic: Units and Measure** **Title: Converting units of area** 1) Watch the video and copy down 2 examples: https://youtu.be/nv26rIqbc4g 2) Try some questions from this worksheet: https://corbettmaths.com/wp-content/uploads/2019/07/Converting-Areas-pdf.pdf **Title: Converting units of volume** 1) Watch this video and copy down 2 examples: https://youtu.be/7xAGhkI1ePk 2) Try some questions from this worksheet: https://corbettmaths.com/wp-content/uploads/2019/07/Converting-Volumes.pdf **Title: Speed distance time** 1) https://classroom.thenational.academy/lessons/speed-as-rate-distance-time-graphs-6nhk2r 2) https://classroom.thenational.academy/lessons/calculating-speed-distance-and-time-6mrkje 3) https://corbettmaths.com/2016/01/01/speed-distance-time/ **Extension: Problem solving with compound measures** https://corbettmaths.com/wp-content/uploads/2018/09/Speed-Distance-Time-pdf.pdf try some of the 'Apply' questions on page 5-6.
3/5/21	**Topic: Real Life Graphs** **Title: Conversion graphs** 1) https://app.mymaths.co.uk/214-lesson/conversion-graphs 2) https://classroom.thenational.academy/lessons/exchange-rates-with-graphs-6cv36d **Title: Distance Time graphs** 1) Watch the video: https://youtu.be/oxOiuqUfWKA 2) Try some questions from this worksheet: https://corbettmaths.com/wp-content/uploads/2013/02/distance-time-graphs-pdf.pdf **Title: Speed Time graphs** 1) https://app.mymaths.co.uk/216-lesson/real-life-graphs
10/5/21	**Topic: Percentages** **Title: Introduction to percentages** 1) https://classroom.thenational.academy/lessons/percentages-on-a-number-line-cru6at

	Title: Converting between fractions, decimals and percentages 1) https://classroom.thenational.academy/lessons/converting-to-decimals-cmvp8d 2) https://classroom.thenational.academy/lessons/converting-from-fractions-to-percentages-c4v3jd **Title: Calculating percentage of an amount** 1) https://classroom.thenational.academy/lessons/percentages-of-amount-6nj68r 2) https://classroom.thenational.academy/lessons/percentages-of-amount-part-2-c9j66c
17/5/21	**Topic: Percentages** **Title: Decimal multipliers** 1) https://classroom.thenational.academy/lessons/decimal-multipliers-64w3et **Title: Increase and decrease by a percentage** 1) https://classroom.thenational.academy/lessons/increase-by-a-percentage-69h68c 2) https://classroom.thenational.academy/lessons/decrease-by-a-percentage-70ukjd **Title: Percentage change** 1) https://classroom.thenational.academy/lessons/calculate-percentage-change-60vkjd **Extension: Problem solving** 1) Watch the video and copy down an example: https://youtu.be/qg7pYqeFRig 2) Try some questions: https://corbettmaths.com/wp-content/uploads/2019/10/Reverse-Percentages.pdf
24/5/21	**Topic: Setting up and solving algebraic equations** **Title: Building expressions, function machines** 1) https://app.mymaths.co.uk/201-lesson/function-machines 2) Watch the video: https://corbettmaths.com/2013/03/12/forming-algebraic-notation/ 3) Try some questions from the worksheet: https://corbettmaths.com/wp-content/uploads/2013/02/forming-expressions-pdf2.pdf 4) https://classroom.thenational.academy/lessons/algebraic-expressions-71gp2t **Title: Solving 1 step equations** 1) https://classroom.thenational.academy/lessons/solving-one-step-equations-chk32d?from_query=solving+one+AND+is_sensitive%3Afalse

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Week Commencing	Activities
20/4/21	**Topic: Trigonometry** - **Title: Finding missing sides** Watch these videos https://corbettmaths.com/2013/03/30/trigonometry-introduction/ https://corbettmaths.com/2013/03/30/trigonometry-missing-sides/ Then, complete this MyMaths lesson: https://app.mymaths.co.uk/322-lesson/trig-missing-sides - **Title: Finding missing angles** Watch this video: https://corbettmaths.com/2013/03/30/trigonometry-missing-angles/ Then, complete this MyMaths lesson: https://app.mymaths.co.uk/321-lesson/trig-missing-angles
26/4/21	**Topic: Trigonometry**

	- **Title: Finding missing angles** Complete Question 1 from the sheet: https://corbettmaths.com/wp-content/uploads/2020/05/Trigonometry-Exercise-329-330-331.pdf If you would like more practice, then have a go at the 'Apply' section **Topic: Direct and Inverse Proportion** - **Title: Direct Proportion and ratio problem solving** https://classroom.thenational.academy/lessons/looking-at-proportional-relationships-6wr34r

3/5/21	**Topic: Direct and Inverse Proportion**
	- **Definition of direct proportion and different representations**
	   o **Graphical, ratio, tabular, algebraic notation**
	   o **Solving simple problems**
	   o **Top sets: setting up direct proportion equations**
	Complete these 3 lessons on Direct Proportion
	Lesson 1: https://classroom.thenational.academy/lessons/direct-proportion-part-1-c8rk6c
	Lesson 2: https://classroom.thenational.academy/lessons/direct-proportion-part-2-61jkac
	Lesson 3: https://classroom.thenational.academy/lessons/direct-proportion-part-3-75gkjd

10/5/21	Direct and Inverse Proportion - Inverse proportion - https://classroom.thenational.academy/lessons/inverse-proportion-74u38t - https://classroom.thenational.academy/lessons/inverse-proportion-in-context-60w6ac - https://classroom.thenational.academy/lessons/graphs-of-inverse-proportion-problems-cmrkgc - Problem solving
17/5/21	**Topic: Quadratics in algebra** **Title: Expanding single brackets (recap)** 1) https://classroom.thenational.academy/lessons/expand-a-term-over-a-single-bracket-c8v62c 2) https://classroom.thenational.academy/lessons/expand-2-brackets-and-simplify-expressions-part-1-crvk4c **Title: Expanding double brackets** 1) https://classroom.thenational.academy/lessons/expand-and-simplify-double-brackets-cdhkjc 2) https://classroom.thenational.academy/lessons/expand-and-simplify-double-brackets-coefficient-of-greater-than-1-c8wp4e
24/5/21	**Topic: Quadratics in algebra** **Optional: Factorising single brackets (recap)** 1) https://classroom.thenational.academy/lessons/factorising-single-brackets-70rkgr **Title: Factorising quadratics** 1) Watch the video and copy down 2 examples: https://corbettmaths.com/2013/02/06/factorising-quadratics-1/ 2) Optional: Try this lesson if you need more help after watching the video https://classroom.thenational.academy/lessons/factorise-a-quadratic-cgukjt 3) Try some of the questions from this worksheet: https://corbettmaths.com/wp-content/uploads/2018/09/Factorising-Quadratics-pdf.pdf **Title: Difference of two squares** 1) https://classroom.thenational.academy/lessons/factorise-a-quadratic-difference-of-two-squares-71jpac