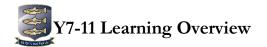
Newport Girls' High School



Subject: Maths Lead Teacher: Mrs C Petford Year: 7

Curriculum organisation

Students are taught in mixed groups of 30 for three hours per week. They are not grouped by ability.

| Overview of Topics & Key Information | | | | | How will your child be learning? |
|--------------------------------------|---|---|--|---|---|
| Term | Unit(s) of Work | Key Enquiry Questions | Key Content/ Terminology | Skills developed | Whole class discussion Pair work |
| Autumn Term | Types of number Calculations Working with shapes Place value and rounding Coordinates and transformations Using letter symbols Measurements Working with decimals Further calculations Sequences Area and perimeter | Which of these numbers is divisible by? Find the square/cube number from this list of numbers. Find the common factors of these number How do you identify the order to complete a calculation? Which of these shapes are regular? How many lines of symmetry does this shape have? What is the order of symmetry of this shape? What type of transformation has happened to this image? How many tenths in one whole? What is the value of 6 in 4632? How do you round to the first decimal place? How do you simplify expressions? I think of a number, multiply it by 3 and then add 5. My answer is 17. | Multiples, factors, primes, powers and roots Multiplying and dividing integers, word problems, BIDMAS Properties of 2D shapes, line and rotational symmetry Understanding decimals, rounding Coordinates, translations, reflections and rotations Word formulae, using letters, simplifying expressions and equations The metric system, converting units of length Multiplying and dividing by powers of 10, adding, subtracting, multiplying and dividing decimals Multiplying and dividing decimals Working with sequences, generating sequences Perimeter, area of rectangles, triangles and compound shapes | Finding multiples and common multiples, finding factors and common factors, testing divisibility, identify prime numbers, square and cube numbers, find the square/cube root of a number Use written multiplication and division methods, solve worded problems, complete calculations using the correct order of operation Recognising types of angles, properties of 2D shapes, classifying types of triangles, recognising and drawing lines of and rotational symmetry Drawing axes and plotting coordinates in all four quadrants, describing translations, reflections and rotations, translating, reflecting and rotating an object Writing and using a word formula, substitution, writing and simplifying expressions, solving equations Using metric units, reading scales, converting units of volume, mass and length Multiplying and dividing by powers of 10, calculating with decimals Calculating with decimals, problem solving Find terms of number and pattern sequences, use position-to-term rules | Problem-solving tasks Independent work Group work Investigations |

| Percentages Ratio and proportion Averages and range Constructions How many tenths in one whole? What is a reciprocal? What is the different types of angles? What is the difference between corresponding, alternate and co-interior angles? How do you find the total of the angles in a polygon? What does percent mean? How do you convert between fractions, adding an adsubtracting fractions, finding a fraction of an amount, dividing an integer by a fraction, divide a fraction by an integer by a fraction, dividing fractions of amounts, dividing an integer by a fraction, divide a fraction by an integer by a fraction, dividing fractions of amounts, converting between fractions, adding and subtracting fractions, finding an integer by a fraction, divide a fraction by an integer by a fraction, dividing fractions of amounts, converting between fractions, adding and subtracting fractions, finding an integer by a fraction, divide a fraction of an amount, dividing an integer by a fraction, divide a fraction of an amount, dividing an integer by a fraction, divide a fraction of an amount, dividing particions of amounts, and precentages of amounts, converting between fractions, finding ratio, sangles on parallel lines Understanding ratio, share in a given ratio, proportion Mode, median, mean and range Understanding ratio, share in a given ratio, share in a given ratio, proportion Mode, median, mean and range Equivalent fractions, simplify fractions, compare fractions, sinterions, compare fractions, one quantity as a fraction of an amount, dividing an integer by a fraction, multiplying and dividing fractions of amounts, converting between fractions, finding an integer by a fraction, multiplying and dividing fractions on amount, stanting precentages of amounts, converti |
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| | | What does the ratio 3: 2 mean? How do you calculate the mode, median, mean and range? Is there an outlier? Should it be included when calculating an average? What are the rules for measuring and drawing bearings? | | Recognising and understanding ratio, equivalent ratios, simplifying ratios, sharing into a ratio, ratio problems, understanding proportion, ratio tables, unitary method Using the mode, median, mean and range, comparing and changing data Understanding, drawing and measuring bearings, scale drawings, constructing a triangle using a ruler and protractor | |
| Summer Term | Probability Displaying data Graphs Working with 2D shapes Properties of 3D shapes | Give an example an outcome an experiment this is (impossible, certain, likely, etc.) Are these events mutually exclusive? What is the best diagram to display the data? Why? What is the x coordinate for the line x = 3? What is a quadrilateral? What different types of quadrilateral are there? What property do all prisms have? How many different ways can you draw the net of a cube? What is the difference between surface area and yolume? | Probability and single events Using tables and charts, vertical line charts Straight line graphs, real life graphs Types of quadrilaterals, area Properties of 3D shapes, nets, surface area and volume of cuboids | The language of probability, the probability scale, experiments and outcomes, equally likely outcomes, mutually exclusive events Drawing and interpreting frequency tables, pictograms, bar charts, vertical line charts Horizontal and vertical lines, plotting graphs using a table of values, using straight line graphs, interpreting and plotting real life graphs Types and properties of quadrilaterals, area of a parallelogram and trapezium Prisms, planes of symmetry, identify faces, edges and vertices, nets, surface area and volume of cuboids | |

| Equipment needed for lessons | How will learning and progress be assessed? | |
|---|--|--|
| Standard school stationery (Pencil, Blue/Black Pen, Green Pen, Rubber, Sharpener, Ruler, Whiteboard pen) Exercise book Scientific Calculator Pair of Compasses Protractor | Half termly tests Formal assessment week Peer and self-assessment Homework tasks Retrieval practice activities | |

| Junior mathematics challenge House mathematics competition KS3 Puzzle and problem-solving lunchtime club | Several websites are very useful that include videos, questions and walked through examples, these are: mymaths.co.uk, corbettmaths.com and drfrostmaths.com Encourage regular revision |
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| Inclusion | Inclusion within Y7 Maths |
| Teachers follow student passports to ensure that the needs of all students with SEND are met. Work is enlarged to the necessary size for visually impaired students. Teachers will ensure that classrooms are quiet learning environments where possible and will dim lights to support students with sensory needs. Students have the use of laptop if they have a SEND need whereby use of a laptop supports them. Hearing impaired students are supported through use a radio aid and teachers ensure that students can lip read at all times during lessons. Dyslexic students are encouraged to use coloured overlays when they are required to read long passages. Use of dyslexic friendly fonts and coloured backgrounds used in PowerPoints/resources. Students with ADHD are given movement breaks, fidget toys and lessons are 'chunked' to aid concentration. Students are seated according to their needs, students work | Equipment is adapted wherever necessary to accommodate the needs of students with SEND Where necessary, pupils are given frequent one to one tutorials to revisit previous topics and methods taught to support their understanding Pupils are provided with online resources to help with learning outside of the classroom and homework, such as videos and worked examples Students have access to spare mathematical equipment to help with organisation |
| with the SENDCo to decide upon this. | |

If you have any questions about this Learning Overview, please contact the named Teacher above.