North Herts

Education Support Centre

Course Title
Key Stage 4 GCSE Mathematics
Overview
Students in Key Stage 4 study towards the Pearson Edexcel (9-1) GCSE in Mathematics and/or the Edexcel Functional Skill Level 2 qualification. At NHESC, our core aim is to build confidence in our students' approach to the subject and provide the opportunity to broaden their subject knowledge, skills and understanding. Work in lessons is based upon the White Rose Education scheme of learning for both Years 10 and 11. Through targeted intervention, we address any gaps in learning that students may have. Work is targeted towards stretch and challenge to give the students the tools to realise their potential.
Outline of the Course
The general aims and objectives of the Edexcel GCSE course are to: • develop fluent knowledge, skills and understanding of mathematical methods and concepts • acquire, select and apply mathematical techniques to solve problems • reason mathematically, make deductions and inferences, and draw conclusions • comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context
Assessment details
The course is assessed through three terminal examinations in May/June at the end of Year 11. Students will also sit two sets of Mock examinations in Key Stage 4, enabling them the opportunity to achieve a GCSE grade 1 to 9.
Staff Roles
Teachers – Mrs Bryant, Mr Laing
Equipment/Health and Safety
Every student is given a 'CGP Books' GCSE Revision Guide to use throughout their time at the Centre and to take home nearer the exams. All other necessary equipment is provided by the centre in lessons and basic classroom health and safety expectations apply.
How will it be examined
The course is assessed through three terminal examinations in May/June at the end of Year 11: ▪ Paper 1 (non-calculator) ▪ Paper 2 & Paper 3 (calculator) Each paper is 1 hour 30 minutes and has 80 marks available. Students are assessed in: number (22-28%); algebra (17-23%); ratio, proportion and rates of change (22-28%); geometry and measures (12-18%) and probability and statistics (12-18%). In most cases, an extra 25% of time is given to students in a SEND cohort. This is assessed by the SEND department and ratified by an external body and, if the student qualifies for this adaption, the time is applied.
Appeals process
If a learner wishes to appeal their final grade NHESC can trigger a remarking of their examination paper(s) by Pearson Edexcel. In most circumstances this will be when the initial mark is within three marks of the next grade boundary.

Curriculum Plan	
This table sets out the intended curriculum plan for GCSE Mathematics in Key Stage 4. The plan for each upcoming half term is reviewed in advance based on the progress that has been made, while also considering the contrasting needs of individuals within each cohort and the impact of external factors on their learning.	
Year 10	
Autumn 1 • ALGEBRA – Algebraic manipulation; equations, inequalities and formulae; quadratic expressions an equations • NUMBER – Percentages	**Autumn 2** • RATIO – Ratio and scale • NUMBER – Work with fractions
Spring 1 • NUMBER – Non-calculator methods; rounding and estimation; • ALGEBRA – Straight line graphs • PROBABILITY – Probability	**Spring 2** • GEOMETRY – Perimeter, area and volume • STATISTICS – Interpret and represent data • ALGEBRA – Non-linear graphs
Summer 1 • GEOMETRY – Angles; vectors • STATISTICS – Graphs and diagrams	**Summer 2** • NUMBER – Factors, powers and surds • GEOMETRY – Pythagoras' theorem and trigonometry • ALGEBRA – Simultaneous equations
Year 11	
Autumn 1 • RATIO – Ratio and proportion • GEOMETRY – Area and volume; similarity and congruence • ALGEBRA – Sequences and proof	**Autumn 2** • NUMBER – Standard form • GEOMETRY – Work with circles • PROBABILITY – Set notation and Venn diagrams • MOCK EXAM PREPARATION, REVISION
Spring 1 • ALGEBRA– Functions and graphs; equations and formulae • RATIO – Rates • MOCK EXAM PREPARATION, REVISION	**Spring 2** • GEOMETRY – Angles and bearings; construction and loci; transformations
Summer 1 • EXAM PREPARATION, REVISION	**Summer 2** • REVISION and EXAMS