CURRICULUM AND ASSESSMENT PLAN

YEAR 12/3 | GCSE RESIT

The curriculum and assessment of students at this stage of education has been carefully designed to promote deep learning of mathematics and develop students into analytical and logical problem solvers.

Year 12 and 13 students will strengthen their knowledge and understanding of the Big Ideas and will continue to prepare for their GCSE exams. We have chosen Pearson Edexcel as our exam board.

A key element of student learning in Year 12 and 13 is how to interpret GCSE questions and how to apply their understanding of the Big Ideas to these questions. Big Ideas have been developed to improve the student's ability to retain information and knowledge. Each Big Idea is such because the students will see and use these concepts frequently, hence they become more confident when applying common methods to a variety of problems.

Year 12 and 13 students will build on the knowledge and understanding of mathematical concepts learned during Year 11 (and Year 12). Year 12 and 13 students should have covered all the topics required for GCSE Mathematics and need to strengthen their knowledge, understanding and examination technique to improve their confidence when re-sitting their GCSE examination. Lessons will focus on practising and building confidence with examination style questions.

We also aim for fluency in the language of mathematics and for students to enhance their literacy skills when explaining their understanding of mathematics. Teachers will identify and close gaps in student knowledge and understanding. This can be from the GCSE examination via Results Plus, class assessments and lesson activities.

Students will be given at least one opportunity to resit their GCSE examination in Year 12 and two opportunities in Year 13.

HALF TERM 1

DEVELOPING FLUENCY IN NUMBER

Any students who will be re sitting their exam in November will follow a bespoke programme based on their performance in the last GCSE examination.

The focus is on building confidence with exam questions using the following skills

All students will know:

- Number operations
- Rounding and estimating
- Calculations with directed number
- Place value
- Equivalent fractions
- Percentage change (with and without calculator)
- Ratio and proportion

All students will be assessed:

Students will sit an assessment at the end of the half term which will consist of 2 short GCSE papers. This will be usedto support gap closure and intervention during Half Term 2.

Reading skills needed for this unit:

Decoding, fluency, vocabulary, prior knowledge and summarising will all be necessary for this half term.

Key vocabulary:

Estimate, rounding, significant figures, direct and indirect proportion, ratio, factor, multiple, prime, HCF / LCM

ENRICHMENT OPPORTUNITIES

Revision and homework support will also be available from September. The aim of these is to support students with resources and projects that would normally be unavailable to them.

HALF TERM 2

Any students who will be re-sitting their exam in November will follow a bespoke programme based on their performance in the last GCSE examination. Following the external examinations, they will continue to follow the scheme, consolidating their knowledge and understanding

PERCENTAGES, POWERS & ALGEBRA

All students will know:

- Percentages
- Index Laws
- Forming and solving equations
- Inequalities
- Expanding single and double brackets
- Factorising linear expressions
- Sequences
- Standard form

All students will be assessed:

- All Year 13 students will be given the opportunity to resit their GCSE exam in November.
- Year 12 students who achieved a Grade 3 in Year 11will be given the opportunity to resit their GCSE examination in November.
- Students will sit an assessment at the end of the half term which will consist of 2 short GCSE papers.

Reading skills needed for this unit:

- Decoding, fluency, vocabulary, prior knowledge and summarising will all be necessary for this half term.

Key vocabulary:
Percentage, expand, factorise, balance method simplify, substitute, solve, inequality, sequence, term

HALF TERM 3

ANGLES AND SHAPE

All students will know:

- Angle rules
- Pythagoras' theorem
- Trigonometry
- Circles
- Area, surface area and volume

All students will be assessed:

Students will sit an assessment at the end of the half term which will consist of 2 short GCSE papers.

Reading skills needed for this unit:

Decoding, fluency, vocabulary, prior knowledge and summarising will all be necessary for this half term.

Key vocabulary:
Parallel, alternate, corresponding, opposite, co-interior, Pythagoras, perimeter, area, volume, isosceles trigonometry, radius, diameter, circumference, pi

HALF TERM 4

AVERAGES, GRAPHS AND MEASURES

All students will know:

- Averages
- Pie charts
- Tally charts and frequency tables
- Averages from frequency tables
- Correlation and scatter graphs
- Sequences
- Straight line graphs
- Non-linear graphs
- Compound measures
- Congruence and similarity

All students will be assessed:

Students will sit an assessment at the end of the half term which will consist of 2 GCSE papers. This will be used to support gap closure and intervention during Half Term 5.

Reading skills needed for this unit:

Decoding, fluency, vocabulary, prior knowledge and summarising will all be necessary for this half term.

Key vocabulary:
Linear sequence, axes, coordinates, linear, quadratic, mean, median, mode and range, stem and leaf diagram, pie chart, frequency polygon, correlation
speed, distance, density, mass, volume, congruence, similarity

HALF TERM 5
PROBABILITY, TRANSFORMATIONS AND SIMULTANEOUS EQUATIONS

All students will know:

- Transformations
- Probability
- Venn diagrams
- Simultaneous equations

All students will be assessed:

In preparation for the exams, students will participate in a walking talking mock.

Reading skills needed for this unit:

Decoding, fluency, vocabulary, prior knowledge and summarising will all be necessary for this half term.

Key vocabulary:

Reflection, rotation, translation, congruency,enlargement, similarity, scale factor.

HALF TERM 6
EXAMS

All students will know:

Preparation for external examinations.

» Exam experience
» Organisation
» Application

All students will be assessed:

External assessment

HOW STUDENTS CAN BE SUPPORTED AT HOME

As a department, we have invested in SparxMaths which is an online learning platform containing over 10000 mathematical videos and quizzes. This can be accessed on any device and is an excellent revision tool. Students can use revision guides and bespoke "Passports" to support their studies. Modelled answers are provided after each assessment, via YouTube videos so that students can review any topics they found challenging.