# St. Joseph's RC High School Ysgol Uwchradd Gatholig Joseff Sant 2016 KS4 Learning Pathways

MATHEMATICS Mathemateg Course Title: Mathematics Examination Board: WJEC Qualification: GCSE

	GCSE MATHEMATICS - NUMERACY	GCSE MATHEMATICS	
Content	Number, Measure and Statistics plus some aspects of Algebra, Geometry and Probability	All the content of Mathematics Numeracy	Additional Algebra, Geometry and Probability
Assessment Focus	The application of the above content in context	-	The application of the above content in context
		Procedural skills in situations that are context-free or involve minimal context for <u>all</u> content.	

## **COURSE OUTLINE**

The Welsh Government has introduced from 2016 two new mathematics GCSEs, one covering numeracy and the other covering aspects of mathematical techniques.

GCSE Mathematics - Numeracy will build on and progress from the levels of numeracy expected at the end of Key Stage 3 through the Literacy and Numeracy Framework and will assess the mathematics that learners will need in their everyday lives, in the world of work, and in other general curriculum areas. It will have an emphasis on those aspects of mathematics which are of most relevance to learners functioning as informed twenty-first century citizens. It will prepare learners to make decisions about further learning opportunities and career choices. Solving problems in the real world and the problem-solving cycle will feature within the specification as well as the more numerical aspects of mathematics. There will also be opportunities for learners to make informed decisions about the use of technology, the management of money and the use of statistics.

The GCSE specification in Mathematics – Numeracy will enable learners to:

• develop knowledge, skills and understanding of mathematical and statistical methods, techniques and concepts required for everyday life, in the world of work, and in other general curriculum areas  select and apply appropriate mathematics and statistics in everyday situations and contexts from the real world
use mathematics to represent, analyse and interpret

information - acquire and use strategies for problem solving and modelling in context

• understand that models may need refining and that there may be more than one way to solve a problem - interpret mathematical results and draw and justify conclusions that are relevant to the context communicate mathematical information in a variety of forms.

GCSE Mathematics will extend to aspects of mathematics needed for progression to scientific, technical or further mathematical study. It will enable learners to appreciate the coherence, creativity, elegance and power of mathematics. It will prepare learners to make informed decisions about further learning opportunities and career choices. It will have an emphasis on those aspects of mathematics required for progression into mathematics or mathematically-related disciplines or employment routes.

The table above summarises the way in which the mathematical content will be divided across the two mathematics GCSEs (GCSE Mathematics – Numeracy and GCSE Mathematics).



### HOW WILL I BE ASSESSED?

The assessment of GCSE Mathematics and Numeracy will be tiered as follows:

Higher	A* A B C	
Intermediate	BCDE	
Foundation	CDEFG	

GCSE grades are based upon performance in two final exams for each GCSE, each exam is worth 50% and is differentiated by calculator and non-calculator skills. In each paper the assessment will take into accout the quality of written communication used to jusify answers and reasons. The first examination for this new specification will be summer 2017. This linear specification allows for a holistic approach to teaching and learning, giving teachers flexibility to teach topics in any order and to combine different topic areas. There will be no coursework elements to either GCSEs.

### CAREER OPPORTUNITIES AND PROGRESSION

Mathematics is a basic skill that everyone needs to be confident with. Colleges, universities and employers will all be interested in how good you are at maths. Therefore, when thinking of a future career and your job prospects, it is very important that you achieve as high a grade as possible in this core subject.

Looking further ahead – Maths in the Sixth Form. To get on to the very popular AS and A Level Maths course, you will need to have studied at Higher Tier and ideally to have achieved a grade B or better. Maths at A Level is challenging and enjoyable. It builds on many topics studied at GCSE level, as well as looking at topics that will be new to you. An A level in maths is highly regarded by universities and employers alike and will put you in a strong position for the future.

#### USEFUL WEB LINKS:

Examinations: www.wjec.co.uk

Revision and Practice: <u>www.mymaths.co.uk</u> (login: sjchs password: product)

www.bbc.co.uk/skillswise

www.bbc.co.uk/gcsebitesize

www.mathsnet.net/gcse

For further information please contact Mrs L Lane - Head of Mathematics