

S3  
Mathematics  
Courses  
2023-2024



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# Letter for parents

## GLENIFFER HIGH MATHEMATICS DEPARTMENT INFORMATION FOR PARENTS/ CARERS OF PUPILS IN S2

On the school website, you can find a document named, S3 Mathematics Courses 2023 – 2024. It will provide you with information regarding the pathways available to your child when studying mathematics at Gleniffer High School.

It includes:

- A table showing the pathways from S1 – S6
- Topics that are taught in the N5 Mathematics and the N5 Applications of Mathematics courses. Topics that are common to both courses are highlighted in blue.
- Posters from [www.planitplus.net](http://www.planitplus.net) that illustrate the range of careers that use N5 Applications of Mathematics or N5 Mathematics.

Your child is following one of the pathways shown in the table.

Pupils in classes 2X4 (Mr Gray), 2X5 (Mrs Allan), 2X6 (Mrs MacLeod) and 2Y3 (Miss Coulshed) are following pathway 1 or 2.

Pupils in class 2X1 (Mrs McCarroll), 2X2 (Mr Wilson), 2X3 (Mrs Barrett), 2Y1 (Mrs Vass) and 2Y2 (Mr Gray) are following pathway 3, 4, 5 or 6.

If your child is currently in 2X1, 2X2, 2X3, 2Y1 or 2Y2, she/he/they can choose to follow the Mathematics or the Applications of Mathematics course.

Your child's maths teacher will discuss these options in class. Please discuss this information with your child and please choose the course that your child wishes to study in S3.

If you wish to discuss any aspect of this information, please contact me by email at [gw07walkermargie2@glow.sch.uk](mailto:gw07walkermargie2@glow.sch.uk) or call the school office and ask for me.

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Please sign the slip below and ask your child to return it to her/his/their maths teacher by Tuesday 25 April 2023.

NAME \_\_\_\_\_

CLASS \_\_\_\_\_

Please select one of these courses:

Course	Tick
Applications of Mathematics	
Mathematics	

Comments:

I confirm that I have received information regarding my child's mathematics course.

Signature \_\_\_\_\_

Date \_\_\_\_\_

# S1 – S6 Mathematics and Numeracy Pathways

## Progression through the Broad General Education (BGE) and the Senior Phase

After following the BGE in S1, S2 and S3, there are different pathways through the Senior Phase. The table below shows the progression that learners may make from S1 to S6.

Learners may follow Mathematics and/or Applications of Mathematics courses.

**Mathematics** courses enable learners to understand and use mathematical concepts and relationships. These courses will require learners to select and apply their skills in numeracy, algebra, geometry, trigonometry and statistics.

**Applications of Mathematics** courses enable learners to apply mathematical ideas and strategies, providing learners with the knowledge and understanding to manage finances, statistics, geometry and measurements in real-life contexts. Applications of Mathematics courses may be more appropriate for pupils aiming to expand their mathematical knowledge in a more contextual setting.

Pathway	S1	S2	S3	S4	S5	S6
1	Second Level	Second/ Third Level	Third Level/ N3 Apps of Maths	N3 Apps of Maths and N3 or N4 Numeracy	N4 Apps of Maths and N4 or N5 Numeracy	N5 Apps of Maths and N5 Numeracy
2	Second Level	Second/ Third Level	Third Level/ N3 Apps of Maths	N4 Apps of Maths and N4 Numeracy	N5 Apps of Maths and N5 Numeracy	N5 Maths
3	Third Level	Third Level	Fourth Level/ N4 Apps of Maths	N4 or N5 Apps of Maths and N4 or N5 Numeracy	N5 Apps of Maths and N5 Numeracy	Higher Apps of Maths
4	Third Level	Third Level/ Fourth Level	Fourth Level/ N4 Maths	N4 Maths and N4 or N5 Numeracy	N5 Maths and N5 Numeracy	N5 Apps of Maths
5	Third Level	Third Level/ Fourth Level	Fourth Level/ N5 Apps of Maths	N5 Apps of Maths and N5 Numeracy	Higher Apps of Maths or N5 Maths	Higher Applications of Maths or Higher Mathematics
6	Third Level	Third Level/ Fourth Level	Fourth Level/ N5 Maths	N5 Maths and N5 Numeracy	Higher Maths or N5 Applications of Maths	Advanced Higher Maths or Higher Applications of Maths

**N5 Applications of Mathematics and N5 Mathematics course comparison** (topics common to both courses are highlighted in blue).

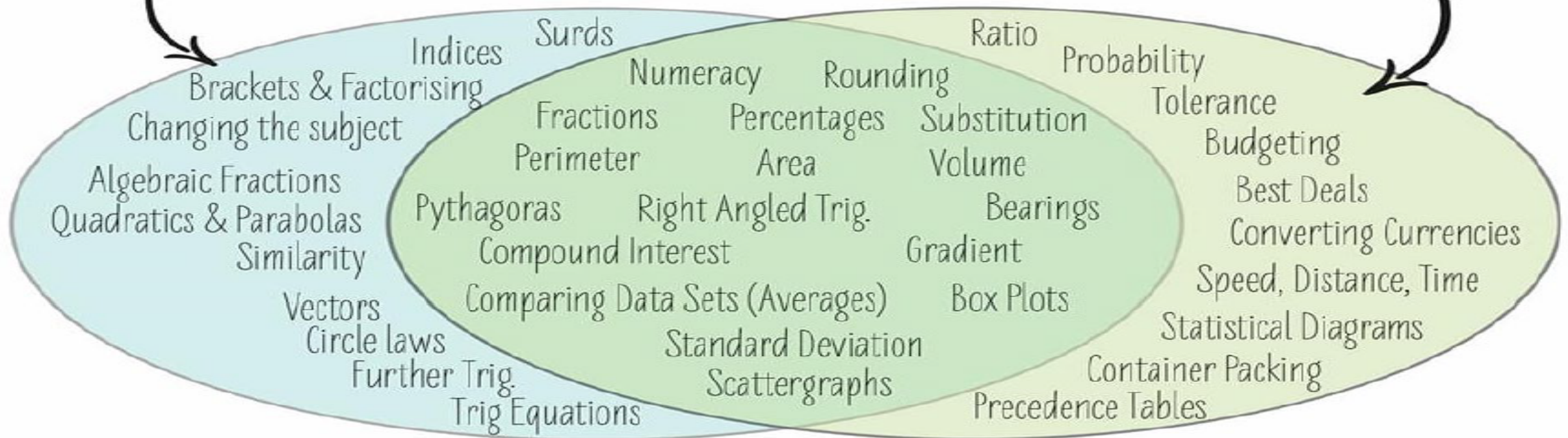
## N5 Applications of Mathematics

Numeracy	Finance and Statistics	Geometry and Measure
<p>1.1 Notation and units</p> <p>1.2 Integers Rounding to decimal places and significant figures Fractions and percentages Rate, proportion and ratio Time intervals and distance, speed, time Perimeter, area and volume</p> <p>1.3 Recording measurements</p> <p>1.4 Interpreting measurements and calculations</p> <p>1.5 Justifying decisions</p> <p>2.1 Interpret graphs and charts</p> <p>2.2 Make decisions based on data</p> <p>2.3 Make decisions based on probability</p>	<p>1.1 / 1.2 / 1.3 Finance Budgets (profit and loss) Wages and income Tax and deductions Saving and borrowing money Determining the best deal Foreign exchange</p> <p>2.1 / 2.2 / 2.3 Probability of combined events Comparing data Construct and interpret graphs and charts e.g. boxplots, pie charts, scatter graphs etc. Mean, median, mode and range Quartiles and semi-interquartile range Standard deviation Line of best fit</p>	<p>1.1 / 1.2 / 1.3 Using formulae Scale drawings Navigation (bearings and scale) Efficient container packing Precedence tables Time management Tolerance</p> <p>2.1 / 2.2 / 2.3 Gradient Area and perimeter of composite shapes (including circle) Volume of composite solids Pythagoras</p>

# N5 Mathematics

Expressions and Formulae	Relationships	Applications
<p>1.1 Working with surds and indices Scientific notation</p> <p>1.2 Expanding brackets and factorising Completing the square</p> <p>1.3 Calculations with algebraic fractions</p> <p>1.4 Gradient of straight line Arc length and area of a sector Volume of standard solids Significant figures</p>	<p>1.1 Equation of straight line Solving equations and inequations Simultaneous equations Changing the subject of a formula</p> <p>1.2 Sketching graphs of quadratic functions Identifying features of a quadratic function Quadratic functions in completed square form</p> <p>1.3 Solving quadratic equations Use the discriminant to determine the nature of roots</p> <p>1.4 Converse of Pythagoras' Theorem Angles in polygons Angles and circle properties Similar shapes, areas and volumes</p> <p>1.5 Trigonometric graphs, equations and identities</p>	<p>Applications</p> <p>1.1 Sine and cosine rules Using bearings with trigonometry</p> <p>1.2 2D vectors and 3D coordinates</p> <p>1.3 Percentages and fractions</p> <p>1.4 Quartiles Standard deviation Scatter graphs and line of best fit</p>

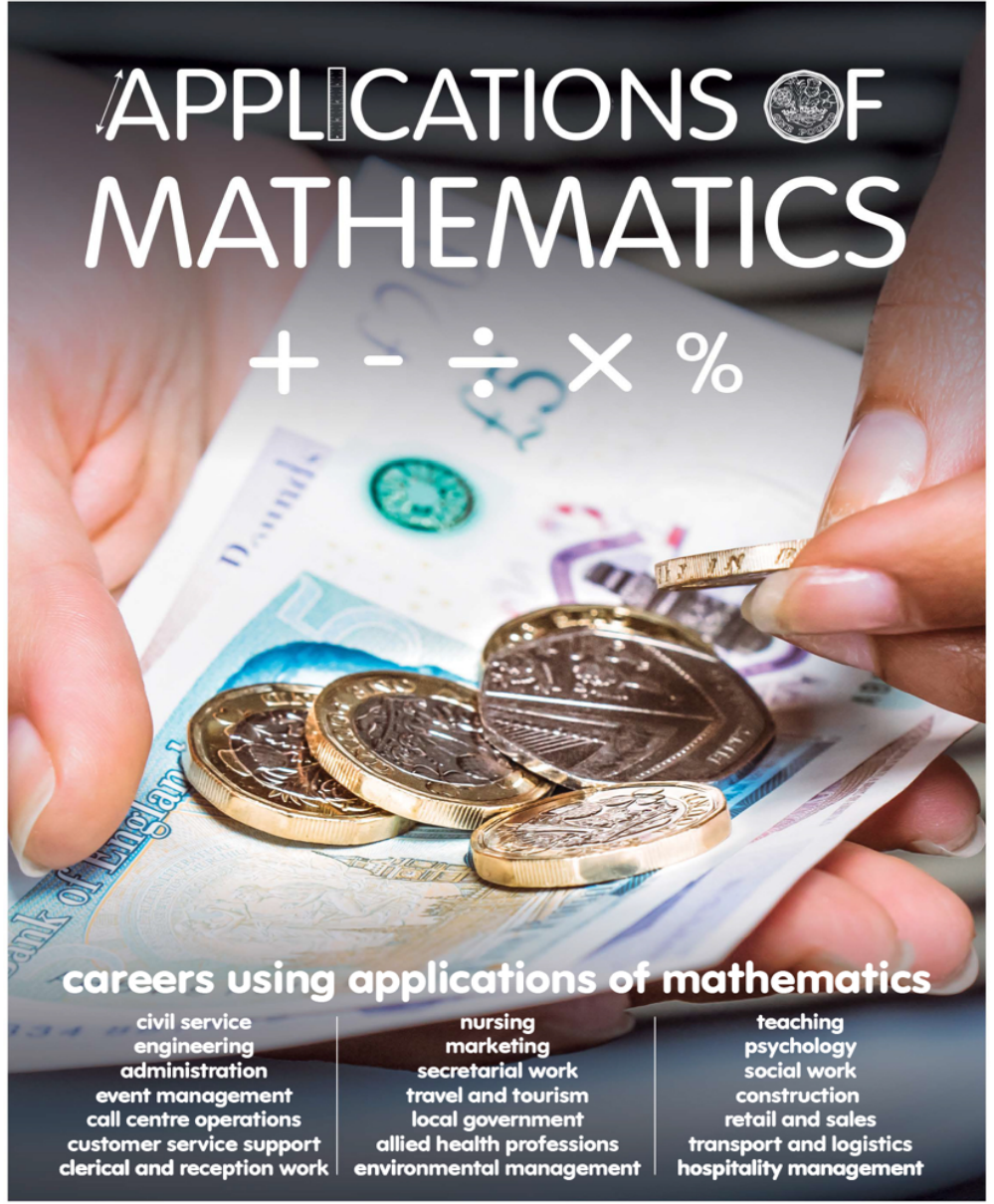
# MATHS OR APPLICATIONS



**WHAT'S THE DIFFERENCE?**

# APPLICATIONS OF MATHEMATICS

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## careers using applications of mathematics

civil service  
engineering  
administration  
event management  
call centre operations  
customer service support  
clerical and reception work

nursing  
marketing  
secretarial work  
travel and tourism  
local government  
allied health professions  
environmental management

teaching  
psychology  
social work  
construction  
retail and sales  
transport and logistics  
hospitality management



find out more at [planitplus.net](http://planitplus.net)





# MATHEMATICS

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## careers using mathematics

science  
construction  
accountancy  
economics  
pharmacy  
engineering  
retail and sales  
air traffic control  
industrial design  
network management  
transport and logistics

banking  
statistics  
insurance  
actuarial work  
bookkeeping  
astronomy  
management  
architecture  
sound technology  
investment analysis  
software development

buying  
teaching  
health sciences  
administration  
stockbroking  
surveying  
meteorology  
cyber security  
market research  
medical technology  
computer games design



find out more at

[planitplus.net](http://planitplus.net)



Please remember to return your reply slip to your child's mathematics teacher by Tuesday 25 April.

Thanks