

# Mathematics Faculty

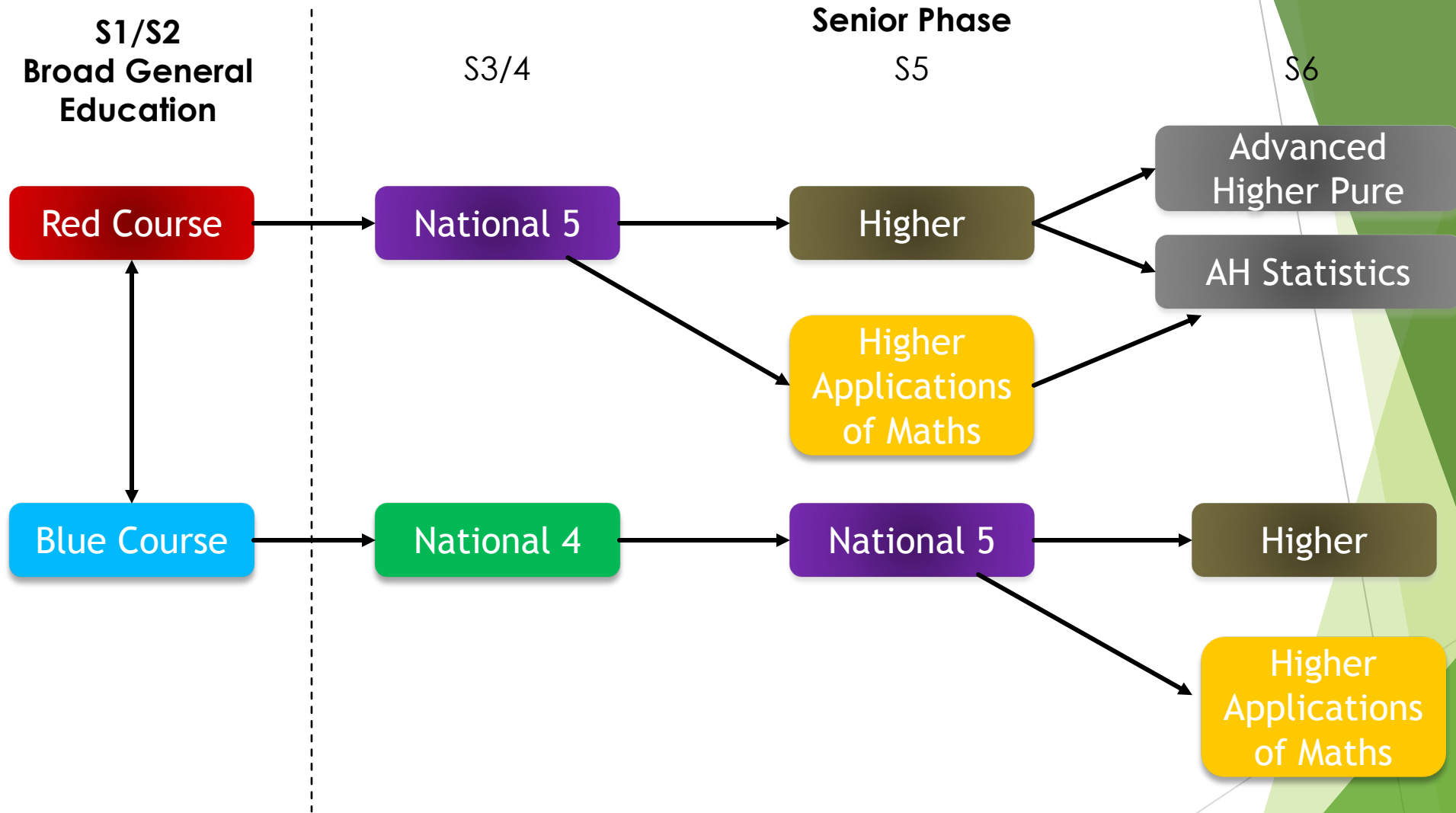
James Gillespie's High School

Ashling Dolan

Acting Curriculum Leader of Mathematics

[ashling.dolan@jamesgillespies.edin.sch.uk](mailto:ashling.dolan@jamesgillespies.edin.sch.uk)

# Mathematics Progression Pathways



# Starting in S1

- ▶ Pupils are grouped broadly based on being in a similar place on their mathematical journey.
- ▶ Aspirational course placement based on data from primary school and first weeks in S1.
- ▶ Course placement information emailed in August to S1 parents/carers.

# S1/S2 Course

- ▶ **Place value**

A fun website to have a go on at home.

<https://www.explodingdots.org/>

- ▶ **Number skills**

Building on work from primary and setting the scene for algebra.

- ▶ **Algebra skills**

Generalising previous work on number and becoming familiar with algebraic terminology.

- ▶ **Area, perimeter and angles**

Key properties of shapes interleaved with number and algebraic skills.

- ▶ **Geometry and further algebra**

Ratio, percentage, circle, Pythagoras, solving complex equations and trigonometry.

# Resources for all S1/S2 pupils

- ▶ All course timelines are available on Sharepoint (please note you will need your child's login for access)

[link Here](#)

- ▶ Core worksheets for additional practice

[Corbett Maths](#)

- ▶ Extension and Enrichment

[nrich](#)

[UKMT Challenge](#)

# General Principles of BGE at JGHS

- ▶ Scheduled discussion at departmental meetings to share resources and best practice.
- ▶ Regular informal discussions at break/lunch about resources and ideas.
- ▶ Identifying gaps in learners' knowledge, followed by planning as a department how to resolve these.
- ▶ Information about end of year assessments and revision resources emailed home in advanced and uploaded on teams.

# General Principles of BGE at JGHS

## In lessons

- ▶ Providing opportunities for group work and discussion in lessons.
- ▶ Valuing different approaches to solve a single problem rather than racing through similar questions.
- ▶ Providing suitable extension or support materials as needed.
- ▶ Low stakes quizzes which provide effective regular feedback and clear next steps for pupils.

# General Principles of BGE at JGHS

## Enrichment

- ▶ Encouraging pupils to take part in Scottish and National Maths Competitions
- ▶ Entering team competitions.
- ▶ Information on Masterclasses at UoE and Maths Circles.
- ▶ Tuesday lunchtime Maths club.



# S3/S4

- ▶ Learners will start preparing for the National 5/4 mathematics.

Focus on core algebraic skills early in S3 (working with linear and quadratics graphs).

- ▶ Regular low stakes assessments and end of topic testing.
- ▶ Pupils are encouraged to use feedback to inform their learning and seek support as early as possible in S3.
- ▶ Aiming to gather evidence of National 4 Maths and National 5 Numeracy for all National 5 pupils at appropriate parts in the course.

# S5/S6

- ▶ National 5 mathematics

[https://www.sqa.org.uk/files\\_ccc/MathematicsCourseSpecN5.pdf](https://www.sqa.org.uk/files_ccc/MathematicsCourseSpecN5.pdf)

- ▶ Higher Mathematics

[https://www.sqa.org.uk/files\\_ccc/HigherCourseSpecMathematics.pdf](https://www.sqa.org.uk/files_ccc/HigherCourseSpecMathematics.pdf)

- ▶ Higher Applications of Mathematics

[https://www.sqa.org.uk/files\\_ccc/higher-course-spec-applications-of-mathematics.pdf](https://www.sqa.org.uk/files_ccc/higher-course-spec-applications-of-mathematics.pdf)

- ▶ Advanced Higher Mathematics

[https://www.sqa.org.uk/files\\_ccc/AHCourseSpecMathematics.pdf](https://www.sqa.org.uk/files_ccc/AHCourseSpecMathematics.pdf)

- ▶ Advanced Higher Statistics

[https://www.sqa.org.uk/files\\_ccc/AHCourseSpecStatistics.pdf](https://www.sqa.org.uk/files_ccc/AHCourseSpecStatistics.pdf)

# Support available

## JGHS Maths Department Study Support Sessions 2022



Level	Day	Time	Room	Teacher
National 5	Tuesday	3.45pm	2.07	Ms Dolan
National 5	Wednesday	1pm	2.15	Mr Cummings
Higher	Wednesday	1pm	2.04	Mr Hoyland
Higher	Thursday	3.45pm	2.15	Mr Cummings
Advanced Higher	Thursday	1pm	2.07	Ms Dolan
S3	Wednesday	3.45pm	2.05	Ms O'Brien
All levels	Monday	3.45pm	2.16	S6 pupils

*Further support for S4 pupils by timetabling two additional staff for team teaching.*

# Positives and plans for next session

- ▶ Feedback on sharing course documents at the start of term, revision material and information on results has been overwhelmingly positive from parents/carers. Aim to embed this in a sustainable way.
- ▶ Providing detailed feedback and targeted revision after assessments/prelims has given pupils very clear next steps.
- ▶ The numbers of pupils taking mathematics into the senior phase continues to grow.
- ▶ Good uptake in competitions and have pupils have reached high levels of success. This year we had two senior pupils do the Olympiad and three Intermediate pupils do the Kangaroo. Prior to covid we won the National Enterprising Maths competition two years in a row.
- ▶ Working on an S1 parent handbook for August 2022.