



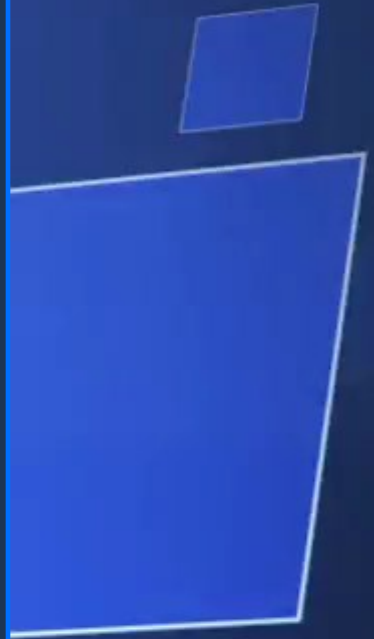
ISAAC NEWTON
ACADEMY

Maths Information Workshop

Looking ahead to GCSE

Aims of the workshop

- To reflect on students' progress to date
- To inform about how students are being stretched and challenged
- To reinforce expectations of students at GCSE level
- To develop a wider understanding of the new GCSE and its requirements
- To provide time for students to see and work through this year's GCSE paper
- To take a brief look at the new style of GCSE paper



Student progress to date

Looking at 'high attaining' students
(arrived at INA at level 5 in Maths)

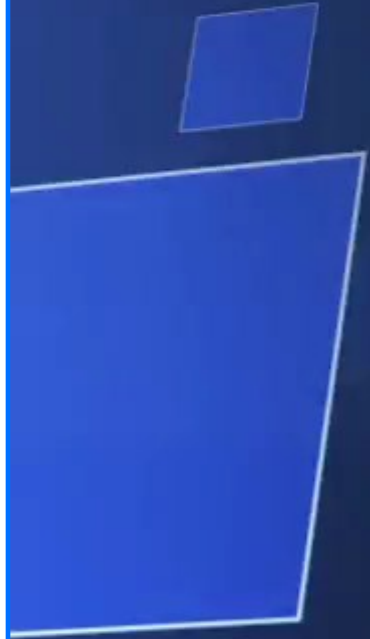
Average progress from start of Year 7 is **5.9 sub levels**
(National expectation is 4 sub levels)

35% of Year 8 currently working at **level 7**
[Level 7 equates approximately to Grade A/A at GCSE]*

71% of Year 8 currently working at **level 6 or above**
[Level 6 equates approximately to Grade B at GCSE]

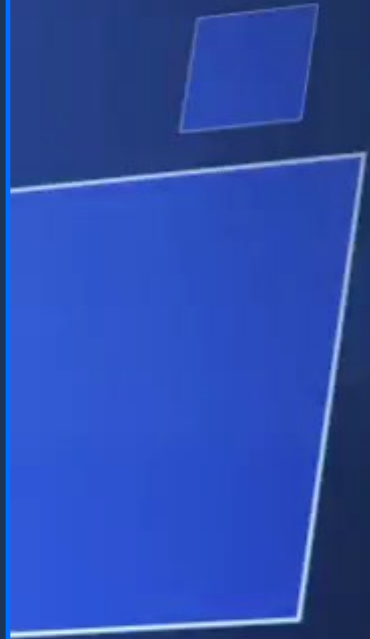


**How much progress have
you made in Maths since
starting at INA?**



Stretch and challenge

- A curriculum that enriches and extends, with a focus on problem solving and higher order thinking skills
- Learning beyond the classroom. E.g. ARK Maths challenge and UKMT Maths Challenge
- Teaching elements of the GCSE specification from Year 7 throughout all units of learning



The New Maths GCSE

- Current Year 8 students first to go through New GCSE
- First teaching from September 2015
- First sitting of new GCSE from May 2017
- Two-tiered system to remain; Foundation and Higher
- Two exam papers; Non calculator and calculator
(1 hour 30 minutes each)



New aspects to GCSE Maths

- More emphasis on showing working out and written explanations, with a new type of mark being allocated for these.
- New grading system that uses numbers 1 to 9 (9 being the highest)
- More questions involving solving problems, which may require multi-step solutions.
- Exams sat at end of Year 11, meaning no early entries



Important aspects to consider

- **More teaching time required**

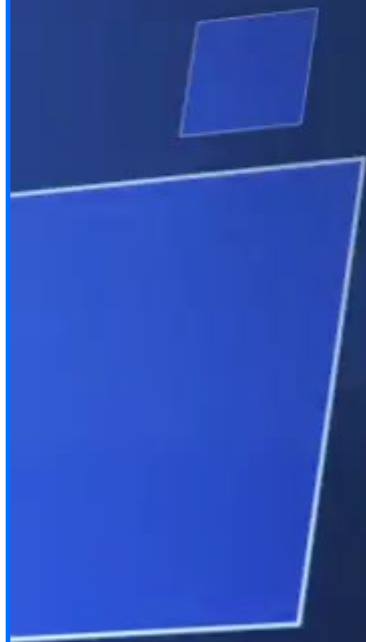
Students at INA already receive 5 hours of Maths each day which is more than most secondary school students

- **Broader and deeper mathematical content**

Students at INA begin to address GCSE content from Year 7, adopting a 'depth before breadth' approach

- **A greater focus on problem-solving**

Problem solving is embedded into the Maths curriculum from the start of Year 7 to develop these important skills



Important aspects to consider

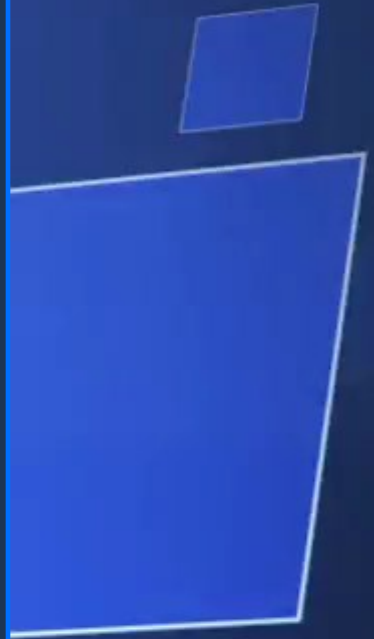
- **Greater examination time than the current GCSE**

Students at INA sit formal end of year assessments to prepare them for their GCSE exams



GCSE paper 2014

- Edexcel Higher tier paper (Grade D to A*)
- Non calculator paper
- Total of 100 marks, approximately 39 of which have been covered in the Year 7 and 8 curriculum
- * questions are the topics that have been covered (topic description also annotated on the paper)



Sample new style GCSE question

There are 80 students at a language school.

All 80 students speak at least one language from French, German and Spanish.

9 of the students speak French, German and Spanish.

19 of the students speak French and German.

28 of the students speak French and Spanish.

17 of the students speak Spanish and German.

45 students speak French.

50 students speak Spanish.

(a) Draw a Venn diagram to show this information.



Sample new style GCSE question

Here are a square and an equilateral triangle.

The length of a side of the square is x cm.

The length of a side of the equilateral triangle is 2 cm more than the length of a side of the square.



x cm

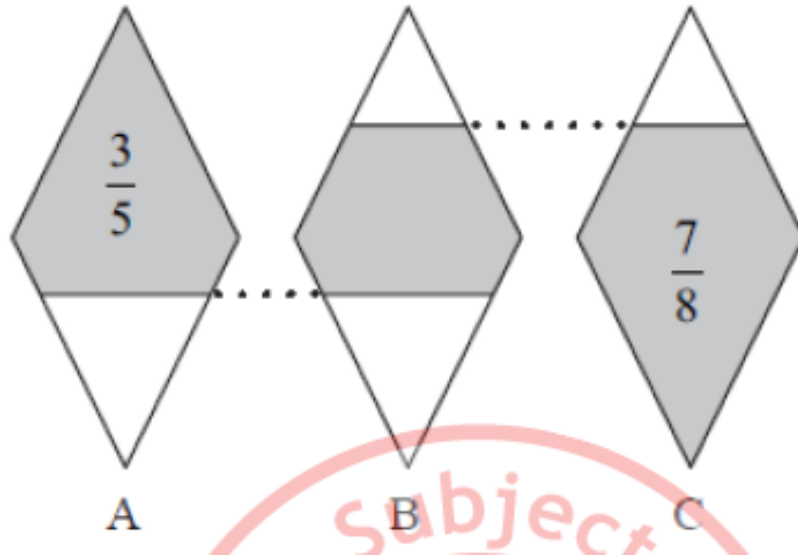


The perimeter of the square is equal to the perimeter of the equilateral triangle.

- (a) Work out the perimeter of the square.

Sample new style GCSE question

The diagram shows three identical shapes, A, B and C.
What fraction of shape B is shaded?



Questions

- Any questions?
- Please complete a questionnaire

Thank you for taking the time to attend this workshop.

We hope you found it useful and informative.

