



How do we identify the starting points of our students?

- Pupils will undertake computer-based baseline testing on entry.
- Pupils will undertake paper-based arithmetic baseline tests in class.
- Reference will be made to KS2/KS3 data in order to choose the correct pathway for each student.
- Induction testing in Mathematics occurs when a student joins Pine Green to offset any deficit in KS2 or KS3 testing.



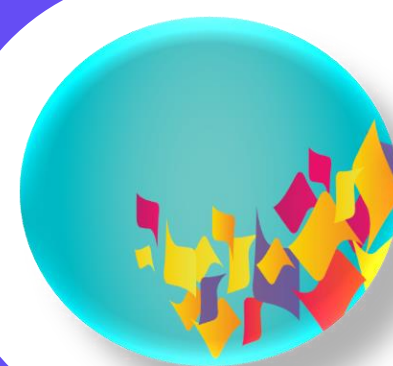
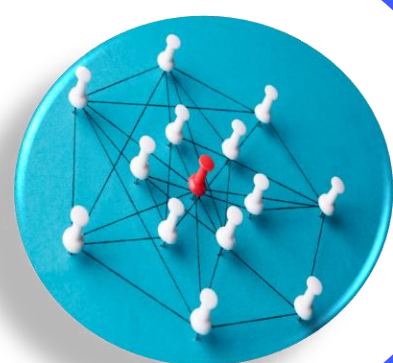
What should pupils be able to do at the end of this key stage?

- Have gained the number skills required for everyday life.
- Have gained problem solving skills which are transferable.
- Gain the necessary maths qualification to realise personal goals after school.



How do we assess and track progress?

- Formative assessment each lesson where the teacher will point out errors and misconceptions.
- Interim assessments where you will be asked to complete exam style questions on the topic studied.
- Summative assessments at the end of each term in the form of a past exam paper
- Termly 'Raising Achievement' meetings to discuss progress and identify interventions where required.



What do we want pupils to learn?

- To become fluid in the fundamentals of arithmetic and build on the declarative knowledge gained in KS3.
- To enhance the procedural knowledge gained in KS3 and develop efficient and accurate number skills to access tasks in algebra, geometry, data handling, probability & statistics.
- To be able to tackle increasingly complex problems, learning skills which will be useful after leaving school.

What key threads flow through our curriculum?

- The development of fluent knowledge, skills and understanding of mathematical methods and concepts.
- To acquire, select and apply mathematical techniques to solve problems.
- To comprehend and communicate mathematical information in a variety of ways.
- Number, Algebra, Ratio (proportion & rates of change), Geometry & Measures, Probability & Statistics.

How we uncover and respond to gaps in knowledge?

- Gaps will initially be observed through baseline testing.
- Regular marking of pupils work and responding to errors and misconceptions.
- Fortnightly formative marking occurs which allow students to develop an understanding of next steps.
- Catch-up tutors to implement intervention when required.

How do we adapt our content to help our students know more?

- Regularly reviewing the scheme of work to ensure it meets the needs of individual students.
- The use of engaging activities such as mathematical games and puzzles.
- Linking content to real life situations.
- The use of differentiated worksheets to meet the needs of all pupils.

How do we promote reading?

- Having a key words wall displaying current required terminology.
- Worded questions where pupils will be encouraged to read the question carefully then highlight or underline the key information required.
- Problem solving steps – read the question – answer – then re-read - 'Have I answered the question asked?'

How do we deepen knowledge?

- Encouraging students to ask questions, 'Why?', and to explain their answers. Peer mentoring where a student can provide support and pass on skills they have mastered.
- Using diagrams, pictures and manipulatives to help learners visualise concepts.
- By using previous knowledge to access increasingly more complex tasks such as solving equations. Students will learn to solve one step linear equations and then use this skill to access two and three step linear equations.

What we do to make sure students retain knowledge during this sequence?

- Re-visiting previous work in starter activities – spaced retrieval practice.
- Retroactive starters to aid recall.
- Schemes of work highlight structured opportunities for students to revisit information.
- Encouraging the development of good habits such as regular practice, patience, self-reliance and hard work.
- By following the Teaching and Learning sequence – acquire, construct, apply.

