



How do we identify the starting points of our students?

- On entry to the school all students undergo testing to obtain levels that students are working at.
- Students will undergo further baseline testing in mathematics to correlate with math's assessment matrices
- KS3 students will also start with basic numeracy skills assessment to ensure they have to building blocks to progress through KS3 curriculum

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

- At the end of each topic pupils should be familiar with key concepts/terminology and misconceptions.
- All pupils should be able to confidently complete topic related assessment in line with their individual targets.
- At the end of key stage 3 all pupils should be working towards or achieving Level 3 functional skills and develop problem solving skills.

How do we assess and track progress?

- All pupils will undergo end of topic assessments and 1/2 term assessments, logged in data sheets to monitor progress over time.
- Pupils are continually assessed during lesson with a variety of formative assessment strategies to enable accurate assessment of students' ongoing progress.
- Use of plenaries, entry and exit tickets and other student focused strategies also enable effective assessment of pupil understanding, i.e. use of task breakdown sheets
- Informal verbal assessment continually through lessons for instant feedback.

What do we want pupils to learn?

- KS3 focusses heavily on establishing declarative number skills and procedural knowledge, building the base for GCSE.
- KS3 pupils will develop conditional knowledge to apply mathematical concepts to post school and build on skills enabling preparation for life.
- KS3 allows pupils to access entry level Mathematics with progression to functional skills
- Throughout KS3 basic are covered across 5 key areas including; number, algebra, data, geometry, shape, space and measure and statistics.

What key threads flow through our curriculum?

- Basic Number skills are address at the start of every year to increase retention and provide skills for progression with numeracy accessible throughout.
- Within the KS3 curriculum there are continual applications to real life skills and problems solving.
- Pupils are expected to access worded problems at the desired level to enhance understanding of terminology, preparation for examinations and assessment and to provide cross curricular links improving literacy.
- Throughout KS3 focus lies on course objectives inclusive of; development of fluent knowledge, skills and understanding of mathematical methods and concepts.
- Acquire, select and apply mathematical techniques to solve problems.
- Reason mathematically, make deductions and inferences, and draw conclusions.
- Comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context.

How we uncover and respond to gaps in knowledge?

- Baseline testing is done with all students to identify current working at grades and gaps in knowledge.
- Individual pupils are discussed in relation to formative and summative assessments where pupils are placed on a raising achievement plan where necessary and appropriate support is put in place to responds to gaps in knowledge, whether that be through classroom strategies, updates on IEP, adjustments to schemes of work or targeted interventions with catch up tutors.

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

- Across Pinegreen Academy we are continually reviewing and adapting schemes of work to ensure accessibility for all students.
- We attend CPD and develop our pedagogical knowledge.
- Math's incorporate fun and physical activities where possible to make lessons more engaging and make links to real life, therefore providing deeper understanding and relate to pupils.

How do we promote reading?

- Key words and terminology is addressed throughout maths continually.
- Pupils are encouraged to develop reading and understanding through worded questions.
- Classroom displays promote reading through detailed descriptions of methods and key terms.

How do we deepen knowledge?

- Throughout mathematics at Pine Green, we are continually addressing misconceptions with students.
- Pupils are always asked "WHY?" encourage them to explain why or how they obtained their answer developing understanding and scaffolding for more in-depth questions and problems.
- Use of D.I.R.T work, where student are expected to reflect and respond to feedback to deepen knowledge and progress.
- REPEAT, REPEAT, REPEAT!!!

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

- Throughout the sequence time is made for pupil talk. Students are encouraged to discuss key concepts and engage in high quality math talks and debates.
- Relation to real life helps student to obtain and retain knowledge.
- Making links to pupil interests such as gaming, physical activities and future prospects.
- Continually revisiting past learning through starters to support retrieval.
- Teaching across KS3 is implemented through a robust teaching and learning policy inclusive of; acquire, construct apply.
- Games are used to enable a fun, creative learning environment.
- Robust schemes of work and long-term plans have been developed with pupils.