Mathematics Charter

The national curriculum for mathematics aims to ensure that all pupils:

- *become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately*
- *reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language*
- *can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions*

(National Curriculum, DFE, September 2021).

Mathematics
Do it now Students will begin with a focused, time-limited task featuring 4 questions designed to reinforce previous learning and ensure retention. We have created this in a booklet format to allow teachers to model answers on the visualisers and help pupils follow the learning journey. The Do it now booklets have spaced retrieval practise to help pupils with retaining prior knowledge.
Pupils are expected to bring a pen, pencil, ruler and a calculator.
The learning objective will be made clear to pupils and link to knowledge organisers.
Modelling (I Do, We Do, You Do Approach) ○ **I Do:** The teacher will demonstrate and model the new concept or problem-solving strategy, explaining the steps and reasoning clearly. ○ **We Do:** The teacher and students will work through similar problems together, with the teacher providing guidance and support as needed. Pupils are given time to think about the we do and complete on whiteboards. The class then complete the question together building pupils confidence at explaining the processes to their peers. Using whiteboards encourages full class participation and identifies misconceptions in real time. ○ **You Do:** Students will independently solve problems or complete tasks related to the new concept, applying what they have learned with decreasing levels of support. Timers are used to increase pace of lessons so students have longer to complete You do tasks.
Assessment for Learning

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- **Mini Whiteboards:** Throughout the lesson, students will use mini whiteboards to solve problems and share their answers. This allows for immediate feedback and helps address any misconceptions in real-time.
- **Multiple Choice Questions (MCQs):** These will be used to assess understanding and clarify misconceptions. Students will answer MCQs individually or in pairs, and the teacher will review responses to gauge overall comprehension.

Fluency Independent Work

Students will complete exercises designed to build fluency and reinforce their skills in the topic being studied.

Reasoning and Problem Solving Work

Students will engage in activities that require deeper thinking, reasoning, and application of mathematical concepts to solve complex problems. Turn and talk tasks are embedded into the maths curriculum where pupils given the opportunity to discuss problems with partners. These tasks support oracy, collaborative thinking, and rehearsal of key vocabulary before whole-class feedback/ written responses/ cold call questions.

Exit Ticket

At the end of the lesson, students will complete a brief exit ticket that includes a question or two related to the day's lesson. The aim is to assess individual understanding and gather feedback on the effectiveness of the lesson, informing future instruction.

- Pupils are given regular feedback to help them know more and do more in lesson. This feedback may be as a whole class or individualised. Live marking and show call of work happens under the visualiser each lesson to allow mistakes to be identified and addresses in real time. Using anonymised or named examples we can celebrate success and unpick next steps.

Pupils are regularly directed to the home learning page on the school website to access the knowledge organisers for revision leading up to AP assessments. Knowledge organisers have a page of knowledge for pupils to learn and on the reverse questions to test themselves.
Pupils are set Sparx homework weekly to consolidate learning and support knowledge retention.

This structured approach aims to enhance student learning by integrating immediate feedback, active participation, and diverse mathematical activities, ensuring a well-rounded and effective mathematics education.

KEY

Mathematics Charter

Black- 2024-25

Green- 2025-26

Purple- 2026-27

WE CARE • WE CHALLENGE • WE COMMIT