

Mathematics Curriculum Intent

Mathematics is an essential skill in life and is at the heart of everyday decision making. It is a rich, interconnected subject with links to many curriculum areas. It is the aim of Swanmead to support every student to achieve their potential and develop a deep understanding of Mathematics. The department offers a supportive, nurturing environment focused on developing a culture of success. We strive to ensure that every student achieves their potential and develops a life-long love of learning mathematics. Swanmead follows the National Curriculum for mathematics (2014). The Swanmead Curriculum is arranged so that there is a focus on number in KS2; it's essential that pupils have a firm foundation in this because it underpins so much of mathematics. In KS3, there is a similar focus, but extending to proportional reasoning and algebra. These topics are essential for a deep understanding of mathematics and underpin much of the GCSE content.

Contextual Information

Swanmead is part of the CISP group of schools (Crewkerne and Ilminster Partnership), which links all first, middle and upper schools in the area. Because KS2 and KS3 is spilt across the schools, continuity of curriculum is particularly important. It is agreed that all pupils in the partnership will follow the White Rose Scheme of Work for KS1&2 and for Y7&8, the Pearson KS3 Maths Progress Scheme of Work; with upper school pupils going on to take the Pearson Edexcel GCSE. All schools also agree to follow the CISP Calculation Policy, which was written by teachers in the partnership.

The Mathematics Curriculum

KS2

Year 5

The Y5 White Rose Scheme of Work provides the main part of the curriculum (see attached). Alongside this, throughout the year pupils use Times Tables Rock Stars to maintain fluency in their knowledge of multiplication tables in a rewarding and motivating way. In the Summer Term, pupils do a unit of work on financial education through preparing a stall for the school summer barbecue.

Year 6

The Y6 White Rose Scheme of Work provides the main part of the curriculum (see attached). Alongside this, pupils are introduced to Numeracy Ninjas, which is a rewarding and motivating way of reinforcing key skills in arithmetic as well as exposing them to some new ideas in the KS3 curriculum. After the SATs in May, pupils do a unit of work on shape with an investigative focus. Key skills which are essential for access the KS3 curriculum are reinforced before the end of the year.

KS3

Scheme of Work

The Pearson Scheme of Work provides three pathways for pupils to follow; Theta for pupils working at the expected standard, Delta for those exceeding this and Pi for pupils working below. We have found that as the new primary curriculum embeds and our attainment at the end of KS2 improves, it's no longer appropriate to have a group of pupils following the Pi scheme of work, so we have decided to have two pathways instead of three. The Delta pathway is for more mathematically able pupils; this gives them the challenge they need. All other pupils follow the Theta pathway (designed for pupils achieving expected standard). For the small number of pupils needing more support, the Pi resources are used as and when needed. In doing this, we are continuing to raise standards at KS3, having high expectations for all, so that as many pupils as possible are well prepared to succeed at GCSE. Numeracy Ninjas is used twice per week for all pupils in KS3. It is designed to reinforce and keep sharp key topics which are essential for access to the KS3&4 curriculum. It is a rewarding and motivating programme which pupils value.

Year 7

Alongside the Pearson KS3 scheme of work and Numeracy Ninjas, once a term pupils do a functional maths project. These projects put maths in a real-life context and make links to the wider curriculum. They also help to develop problem-solving skills and team work.

Year 8

Alongside the Pearson KS3 scheme of work and Numeracy Ninjas, pupils start the year with a unit of work on fractals. This introduces them to an area of maths with creative and scientific links. Not only do they create awe and wonder, but pupils are made aware of the complexity of mathematical topics and their interconnected nature, making them realise that mathematical understanding goes way beyond the limits of the GCSE curriculum.