Chadsgrove Curriculum Long Term Planning: Mathematics

Curriculum Intent

Chadsgrove School accommodates pupils with a very broad range of needs and abilities. For this reason, the curriculum is considered in terms of a Formal Pathway and a Semi-Formal Pathway. The individual needs of learners are met through personalised approaches however, the sequential development of skills is a core principle of the curriculum approach for each group, recognising the hierarchical development of concepts and skills in Mathematics which are necessary before learners can progress on to higher level and inter-connected skills.

The organisation of pupils into classes is through a mixture of Key Stage, ability and sometimes other factors such as previous educational history. As an all age school, pupils progress through classes and detailed transitional arrangements can be discussed informally between teachers to support the progress of pupils in their classes.

For pupils on the Semi-Formal Curriculum Pathway:

The approach used throughout the Semi-Formal Curriculum is to develop mathematical thinking through a themed approach, with focused learning opportunities that introduces content appropriate to the individual's cognitive processing capabilities.

The Semi-Formal Curriculum promotes Mathematics through explorative learning which provides opportunities for learners to encounter the world around them. Within their play, younger pupils may reach, hold, explore and encounter sensory items and stimuli in order to gain independence and enable opportunities for communication and cognitive development. Their mathematical understanding is also developed through stories, songs and games. As their mathematical understanding and skills progress, they will cover the following areas: place value, addition and subtraction, 2D shape, 3D shape, data handling, multiplication and division, money, position, time, measuring and applying these skills to solving problems. Coverage for these areas is shown in Appendix A. Older pupils are provided with similar but age appropriate opportunities. They will be given time to apply the concepts and skills they have developed previously in day to day situations such as telling the time, using money, following sequences, weighing and measuring and to practise their skills in real life contexts both within and outside of school.

For pupils on the Formal Curriculum Pathway:

Planning, learning and assessment for these pupils is guided by the National Curriculum. It is designed to ensure that all learners become fluent in the fundamentals of Mathematics and develop conceptual understanding, are able to reason mathematically and explain their thinking using mathematical language.
They should also be able to solve problems by applying their Mathematics to relevant real life situations and persevere in seeking solutions as well as following a sequential curriculum that builds on past learning, avoiding gaps and promoting continuity and progression. Older pupils will work towards externally accredited qualifications, from Entry Level 1 to Level 2 as appropriate.

Curriculum Implementation

Pupil progression in Maths is supported through a Concrete, Representation then Abstract (CRA) approach to each area. The Concrete Stage is using physical objects for example blocks, or actual objects which can be handled or manipulated, to support sensory approaches to learning. As pupils progress, they move towards representations of objects such as shapes on a page or pictorial representations of objects. In the abstract stage, students are taught how to translate two-dimensional drawings into the conventional mathematics notation to solve problems.

For pupils on the Semi-Formal and Formal Curriculum Pathways:

In the Semi-Formal and Formal Curriculum Pathways, teaching takes into account personal learning styles whilst also empowering pupils to draw on a wide range of calculation strategies, explaining methods and reasoning and establishing a secure foundation in mental calculation and the recall of number facts before standard written methods are introduced. Pupils are enabled to extend their reasoning, problem solving and investigational skills and assisted to make predictions, judge whether their answers are reasonable and have strategies to check.

Pupils are encouraged to develop life skills for living, employment and recreation. This includes, but not exclusively, money, time and measure.

Pupils in Key Stages 1-3 have between three and five timetabled sessions of Mathematics each week. Pupils in Key Stages 4 and 5 have between two and three timetabled sessions of Mathematics each week.

To ensure enough time is allocated to each core topic area in Key Stage 3, sessions are planned using the Maths Coverage plan in Appendix A.

Some pupils who are following the Semi-Formal Curriculum in Key Stages 4 and 5 also have up to two timetabled sessions of Life and Living skills each week. These sessions focus upon the use of mathematical skills and concepts in real-life and practical situations.

5LS/6LS	**Autumn**	**Spring**	**Summer**
	Number Shape	Number Position and direction	Number Measure
National Curriculum KS2	• Number – number and place value • Number – addition and subtraction • Number – multiplication and division • Number – fractions (including decimals and percentages) • Measurement • Geometry – properties of shapes • Geometry – position and direction • Statistics • Ratio and proportion • Algebra		

8LS, 9US & 11US	**Autumn**	**Spring**	**Summer**
	Number: place value Number: addition and subtraction 2D shape Data handling Number: multiplication and division Money Position Time	Number: place value Number: multiplication and division Measure: Length Number: problem solving Time Money Data handling	Number: place value 3D shape Data handling Measure: temperature and capacity Money Number: multiplication and division Time Measure: weight
National Curriculum KS3	• Number • Algebra • Ratio, proportion and rates of change • Geometry and measures • Probability • Statistics		

*Refer to Appendix A

12US	Autumn	Spring	Summer
Functional Skills Maths (E1-L2)	Using numbers and the number system whole numbers fractions and decimals	Using common measures, shape and space Handling information and data Sample Assessment Walkthrough of Sample Assessment Targeted Revision	Consolidation & Revision Live Assessment Consolidation Live Assessment (Re-sits) Consolidation

Curriculum Impact

By the time pupils leave school we aim that they will all have developed their thinking and where possible mathematical skills to be able to use these skills as a tool to deal with their lives. We expect that they will leave school with a good understanding of the fundamental skills which mathematics can provide as they begin their journey into adulthood.

Assessment is conducted via SOLAR, our digital assessment tool, utilising Chadsgrove P Steps for classes 5LS, 6LS, 8LS, 9US, and 11US. This structured approach ensures that each pupil's progress is tracked and evaluated against tailored educational milestones. All data from SOLAR is then entered termly on to a whole school spreadsheet. From there it can be seen how much progress pupils are making and interventions can be put into place if pupils are not making the progress they are expected to. Meanwhile, class 12US follows an accredited Functional Skills course and will be assessed according to the specific criteria set out by Edexcel, ensuring that pupils meet the necessary qualifications and learning objectives.

Pupils will be working on individual personal targets (relating to their EHCP outcomes). Pupils' IEP targets relevant to their mathematical development (taken from their EHCPs) are clearly linked to the pupils' maths work and this is detailed in teachers' Medium Term Plans. Pupils' targets are regularly reviewed and monitored to ensure continued progression of both knowledge and skills.

Evidence of impact will be found in work folders, which will demonstrate pupil progress through marking and annotation from teachers and annotated photographs of children whilst completing activities (if appropriate). We also encourage our pupils to be reflective learners and so, where appropriate, we use 'RAG rated' pupil self-evaluation forms on key pieces of work, to encourage pupils to evaluate their own progress and achievements.

Pupils on the Formal and Semi-Formal Pathways will leave school with a qualification which demonstrates their knowledge and skills in Mathematics.

Appendix A

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Term One	Transition Week	Number place Value		Number: addition and subtraction		2D Shape	Data Handling	Number Calculations: multiplication and division where appropriate		Money		Position		Time
Term Two	Number: place value		Number Calculations: multiplication and division where appropriate			Measure: length		Number: problem solving		Time		Money	Data Handling	
Term Three	Number: place value		3D shape	Data Handling	Measure temperature and capacity		Money (Enterprise Week)	Calculations			Time	Measure Weight