



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, a Semi-Formal Pathway and a Pre-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 Pre-Formal Curriculum Pathway:

In the Pre-Formal Curriculum Pathway, pupils develop their thinking skills through a holistic approach to learning and consequently Mathematics is not taught as a discrete curriculum option but is associated with the development of wider thinking skills.

For pupils on the Semi-Formal Curriculum Pathway:

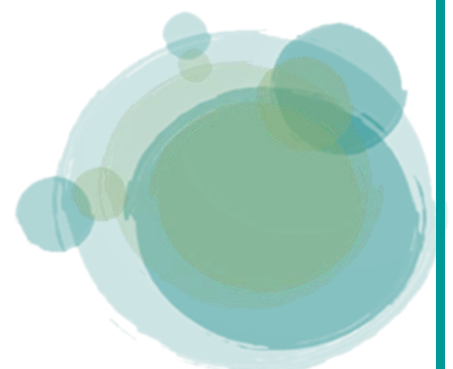
The approach used throughout the Semi-Formal Curriculum is to develop mathematical thinking through a themed approach, with focused learning opportunities that introduces content appropriate to the individual's cognitive processing capabilities.

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/GCSE as appropriate.



Curriculum Implementation

Pupil progression in Maths is supported through a CRA (Concrete, Representation then Abstract) 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 in Early Years:

Pupils have two timetabled sessions of mathematical development. Mathematics is also developed in a cross-curricular way through the implementation of a cycle of themes which are explained in more detail in the Early Years Policy. Pupils learn through playing, exploring and actively learning in a stimulating, enabling environment.

For pupils on the Pre-Formal Curriculum Pathway:

Pupils have up to five timetabled sessions of Thinking Skills each week. This is the area of learning from the Barrs Court Curriculum that most specifically relates to the development of early learning and mathematical skills.

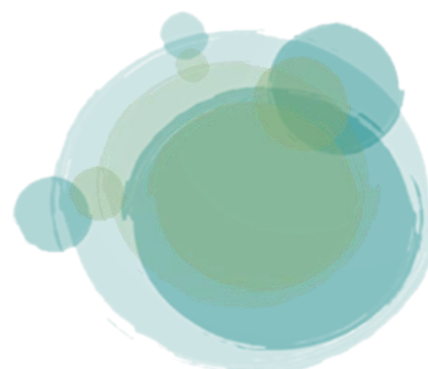
For pupils on the Semi-Formal and Formal Curriculum Pathways:

In the Formal and Semi-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.

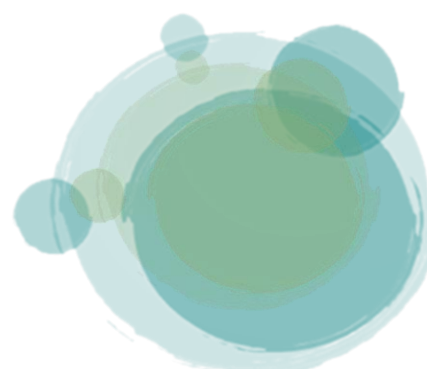
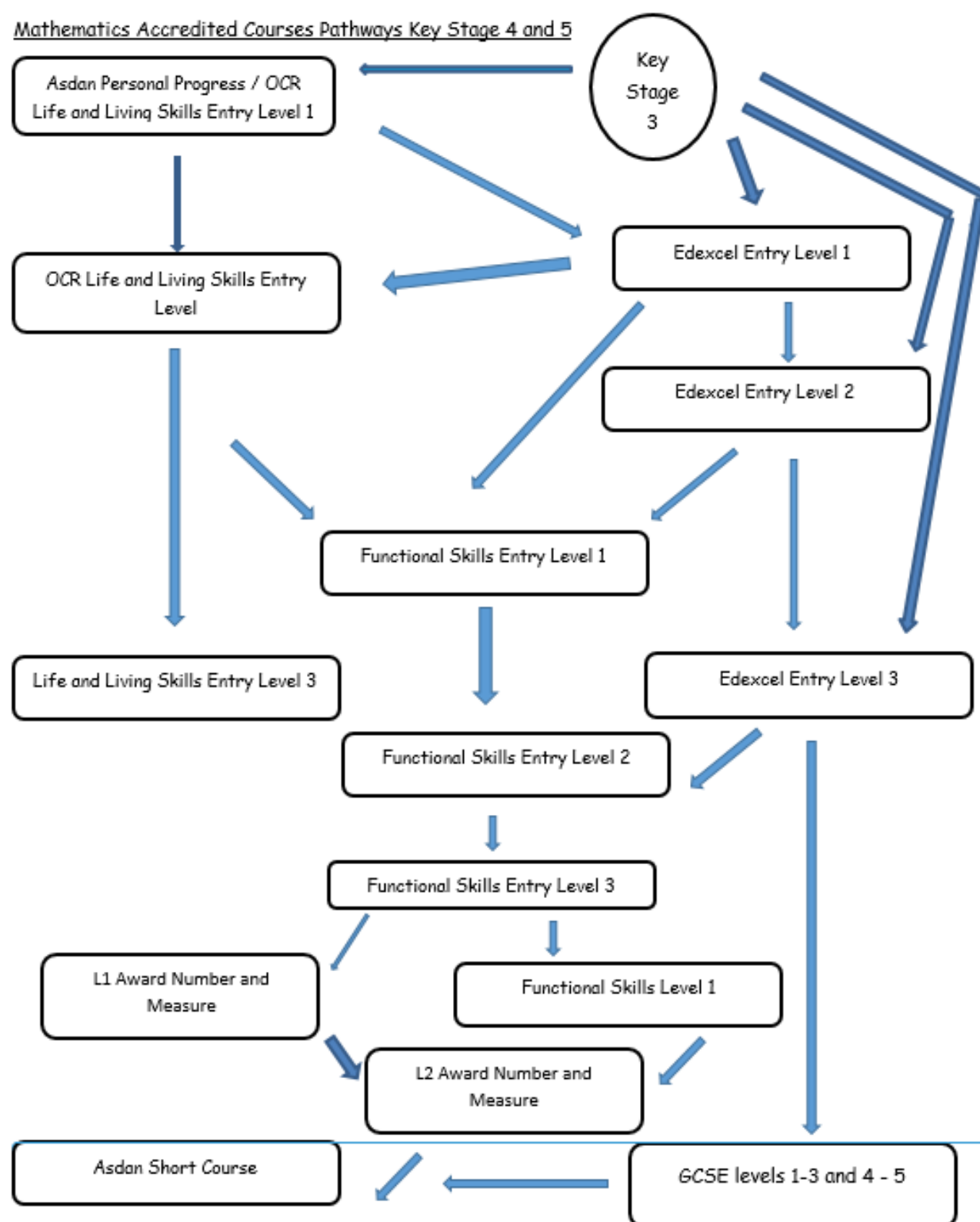
Pupils in Key Stages 1-3 have between three and five timetabled sessions of Mathematics each week. Pupils in Key Stages 4 and 5 have between two and three timetabled sessions of Mathematics each week.

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

Key Stage	Formal Curriculum Pathway	Semi-Formal Curriculum Pathway
1	Hamilton Mathematics YR	Development Matters in the Early Years Foundation Stage
2	Hamilton Mathematics Y1 -- Y2	Hamilton Mathematics YR
3	Hamilton Mathematics Y2 - Y4	EQUALS
4	Accredited courses –see below	Accredited courses –see below
5	Accredited courses –see below	Equals Accredited courses –see below



Mathematics Accredited Courses Pathways Key Stage 4 and 5



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.

Pupils will be working on individual personal targets (relating to their EHCP outcomes). Pupils' IEP targets relevant to their mathematical development (taken from their EHCP's) 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.

All pupils are continuously assessed using the Chadsgrove P Steps and our assessment tool, SOLAR, so that we are able to track progression through each level.

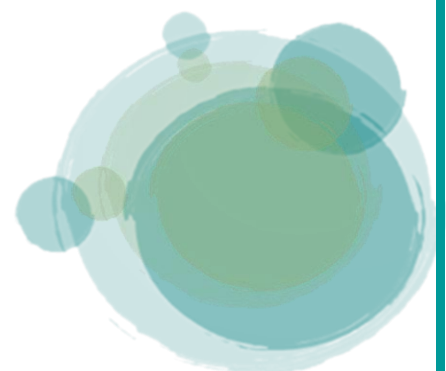
Pupils on the Formal and Semi-Formal Pathways will leave school with a qualification which demonstrates their knowledge and skills in Mathematics.

Pupils on the Pre-Formal Pathway are assessed using individual targets that are set to link closely to their band on Routes for Learning. Progress is recorded using the Engagement Model and uploaded on to SOLAR. This is updated at least termly.

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.

The progress of pupils within Mathematics is also monitored through:

- pupils' responses to the tasks set in planned activities through questioning and feedback
- pupil observation as they interact in their play, everyday activities and planned tasks
- staff discussion one to one, in groups or in larger meetings
- analysis of Medium Term Plans by the Subject Leader and Assistant Headteacher
- moderation of pupils' work during Mathematics moderation meetings to compare for standardisation particularly between key stages
- lesson observations and learning walks by the Subject Leader and Headteacher
- work scrutiny including work folders or video evidence



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		

