Castle Hill School

Innovating, Communicating, Empowering

MATHEMATICS POLICY

Policy Created	**2010**
Committee	**Joint**
Last review	**2026**
Frequency	**3 years**
Date to be reviewed	**2029**

General Policy Statement

At Castle Hill School, we intend to provide a safe, secure, caring environment where everyone is valued and respected equally. We aim to provide an inclusive education where pupils develop independent learning skills and are taught according to need whatever their age, gender, background, beliefs or abilities. National legislation re disabilities, race relations and special education needs underpin this policy, which has also taken into consideration national, local and school policies on Special Educational Needs, Equal Opportunities and Health and Safety.

General Curriculum Statement

The fundamental principle behind curriculum design at Castle Hill School is personalisation. The learning needs of each pupil are rigorously assessed on entry to the school and on a regular basis through their school career. In this, every aspect of each pupil's learning needs is reviewed, bringing in the experience and expertise of a wide range of staff, professionals and parents/carers to identify priority areas for the pupil's personalised curriculum. Each pupil's curriculum is therefore bespoke.

For more information, please refer to the Curriculum Statement (a separate policy).

Subject Area Intent:

In mathematics, all pupils will explore their environment and begin to make sense of their world through application of wide range of schema. As more abstract understanding emerges, pupils will develop functional numeracy and problem-solving skills that will support future independence.

Philosophy

The skills developed in mathematics provide pupils with tools for exploring, investigating and understanding the world. At each developmental level, the pupils are given opportunities and experiences to explore and compare objects, materials and events. The pupils are supported to find differences and similarities, to notice relationships and connections and use this knowledge to further guide their learning. At first these opportunities will be of a sensory and perceptual nature, becoming gradually more concrete and varied, thus helping pupils make sense of change, for example, in space, time, pattern and quantity. Later in their development, the skills learnt will aid representational thought and the ability to anticipate, predict and problem solve. This allows the pupils to plan, to evaluate, improve own learning and begin to use number in a representational way. The skills developed in mathematics are life-long skills that will support the pupils into adulthood. There is a focus on the application of mathematical skills that can solve problems in real life situations and promote independence, for example, using the clock to tell the time.

We support our pupils to understand the world around them through play and exploration. This is an essential process for all pupils with complex needs. Only

when understanding of the world is achieved through the application of schema, can further learning progress.

Many of our pupils have visual, auditory or physical disabilities, and some have a multi-sensory impairment. It is therefore important that our pupils have access to a range of mathematical activities that accommodate their individual needs and allow individuals to reach their potential within the subject. Our pupils use a range of ICT/communication systems and resources to access a wide variety of mathematical activities.

We should also consider multicultural diversity and gender issues of our pupils when delivering mathematical activities.

Practice

The teaching of mathematical skills needs to be explicit in planning, but it may be taught as a discrete subject, across the curriculum and throughout continuous provision.

Early Years

Pupils in the Early Years class follow the Early Years Framework, 'Birth to 5 Matters', which covers the following areas:

Prime areas:

- Communication and language
- Physical development
- Personal, social and emotional development

Specific areas:

- Literacy
- Mathematics
- Understanding the world
- Expressive arts and design

Primary and Secondary

Staff should teach knowledge, skills and understanding in age-appropriate ways that match and challenge their pupils' abilities. Some sessions will focus specifically on mathematical activities, while at other times, there will be a strong cross-curricula links, such as counting peers during the daily 'Hello' session. There will be group work or focused individual work for pupils who will benefit from this.

Both Primary and Secondary pupils follow the Castle Hill Curriculum. This is topic-based, with activities clearly differentiated for age and developmental level. Programmes of study are drawn from a variety of sources, for example; The Victoria School's MSI curriculum, Glyne Gap, Routes for Learning, Quest and Equals.

Staff should ensure that all pupils at Key Stages 3 and 4 complete 3 maths based AQA (formerly the 'Assessment and Qualifications Alliance') Unit Awards annually. Key Stage 4 pupils take part in ASDAN ('Award Scheme Development and Accreditation Network') Personal Progress units of work.

Post 16

In Post 16, pupils access one of three curricula, which refer to a variety of sources, including ASDAN 'Personal Progress', ASDAN 'Personal and Social development', and Equals 'Moving On'.
These include Key Skills – English and Maths

Teaching Styles

It is important to use a range of multi-sensory teaching styles to reflect the different learning abilities of individuals in any group of pupils. Teaching will be delivered on an individual basis, small groups or whole class groups as appropriate.

Teaching content

Mathematics is a developmental subject and needs to be taught according to the developmental level of understanding of individual pupils.
Breadth and variety of experience will be maintained using imaginative and motivating resources and activities.

Schema and Enabling Schema

For pupils working at the earliest developmental levels – CHLs 1-3 - (previously P1-P3), the teaching focus will be on encouraging and extending early developmental schema. Throughout all the key stages, pupils will be given opportunities to explore a wide range of schema, such as trajectory, orientation, connecting, rotation, enclosing, enveloping, positioning, and transporting. Emphasis will be placed on developing and extending the preferred schema of individuals, as well as encouraging them to experience less-preferred schema. Staff will provide modelling and scaffolding at all stages. Support will be given to ensure that pupils with complex and profound learning difficulties, including multi-sensory impairment, will have access to the teaching and exploration of schema ('Enabling Schema').

Pupils at these earliest levels will be given frequent opportunities to explore their environment, including outdoors, to get concrete experience of similarities and differences in space, shape, and quantity. They will be supported in developing an awareness of permanence and change, and the rules and patterns governing this. They will be encouraged to use this awareness to anticipate and predict events across a wide range of experiences and activities.

Numicon resources

For the pupils at slightly higher levels of development – CHLs 4-7 (previously P4-P7), they will continue to explore their environment using concrete objects. They will be encouraged and given opportunities to use symbolic thought and consider the relationships and patterns within their environment.
For pupils beyond this level of development – CHL 7+ (previously P7+), concrete explorations and demonstrations will still be important, but more emphasis will

begin to be placed on symbolic number work and representational images, using these to find and describe relationships and connections.

Numicon shapes support learning by providing a multi-sensory means of understanding connections between numbers. Numicon shapes use patterns to represent each numeral; these patterns are structured so that number relationships can be presented in a way not provided by written numerals.

Planning for Mastery

The Castle Hill Curriculum Guides provide the basis for medium-term planning. These link to the long-term plan, which is based on a three-yearly cycle. Individual teachers and class leads use suggested activities to inform their medium-term and short-term weekly planning.

Each year, a Mastery focus is selected, ensuring there is coverage of the three areas: Number; Shape, Space and Measures; and Using and Applying. Mastery Statements are formulated for three groups of learners: PMLD (CHL3.2), SLD (CHL5), and SLD+ (CHL7). These link to the 'Mathematics Programmes of Study: Key Stages 1 and 2' from the National Curriculum in England. The Mastery Statements from different curriculum areas are compared and adjusted where necessary, to provide consistency of expectation at each of the three levels.

Assessing and recording progress

Assessment is built into the teaching and learning process for all pupils. It is a valuable tool for informing staff of the next steps in learning. Assessment at Castle Hill is ongoing, however formal assessment takes place at the end of each term through the MAPP assessment process, when data is collected. At these termly points, progress is measured and pupils are judged to be 'on track' or 'not on track' to meet their end of year targets. If 'not on track', interventions are considered through termly Progress towards Targets (PTT) meetings with a member of the SLT.

Assessment for Nursery and Reception pupils is based on the 'Birth to 5 Matters' document. Assessment for KS1-5 pupils is based on 'Castle Hill Levels', although staff also refer to Pre-Key Stage Standards where appropriate (reportable at end of year for Yrs 2 and 6). Each pupil has a minimum of one MAPP target in Maths, which is based on targets set within the EHC Plan. Pupil progress is measured against the indicators of Prompting, Fluency, Maintenance and Generalisation. Personalised PIP targets are set for each pupil, building towards achievement of the MAPP targets. The '5 Areas of Engagement' based on the Engagement Model (March 2020, STA) are threaded throughout the MAPP and PIP targets where appropriate: realisation, exploration, anticipation, persistence and initiation.

Observation is used as an assessment tool. Photographs, Engagement Profiling videos and other forms of qualitative assessment can also be used to demonstrate pupil progress. This formative assessment process helps staff understand how each child is learning and informs further planning and progression.

Ongoing focused commentary, and the plenary at the end of each session, are both used as opportunities for staff to share learning, progress, and meeting of

targets by individual pupils. Pupils are encouraged to reflect on their own learning. All staff are encouraged to consider 'next steps' for pupils.

Learning objectives are set based on pupils' MAPP and PIP targets. These are evaluated regularly and amended when necessary.

Progress in mathematics is reported to pupils, parents, carers and other professionals through the Learning Journals, Evidence of Learning files, EHCPs and photographs or videos. Parents and carers have two Parent Evenings each year, as well as more informal discussions regarding their child's progress in maths.

Achievement is reflected in accreditation and qualifications for Year 6, Secondary and Post-16 pupils. Achievement is also reflected in displays around school and 'Star of the Week' assemblies.

Training:
Information sessions for Parents and Carers are held each year to support their understanding of Schema and Early Number skills, particularly in relation to their own child. Training is also offered to staff, including teachers, ETAs and LSAs.

Planning for progression
Careful sequencing of curriculum content and experiences build on previous learning and achievements to promote future learning. Long- and medium-term curriculum plans should therefore show progression from age group to age group and within each key stage. This progression can be shown through the application of skills and experiences. The Castle Hill 'Number Pathway', 'Shape, Space and Measures (SSM) Pathway, and Using and Applying (UA) Pathway, support staff in planning appropriately for progression in maths.
Planning for progression for individuals or groups might focus on:

- Skill development
- Breadth of curriculum content
- A range of contexts for learning
- A variety of support equipment
- A range of teaching methods
- Application of skills, knowledge and understanding in new settings
- Strategies to promote independence

For our pupils, progression is not necessarily only movement up a hierarchical ladder of skills and knowledge. Horizontal progression and maintenance of skills is also important.

As pupils make progress, they will access core strands of maths learning. The strands (Number, Using and Applying, and Shape, Space and Measures) will be taught through age-appropriate topic themes.

Equal opportunities

All pupils and students will work at a level appropriate to their own needs and level of ability.
All pupils will have equal access to high quality maths teaching, regardless of gender, cultural origin or ability.

The Role of the Maths Lead

The Maths Lead is responsible for the completion of the following tasks:

- Subject development and innovation
- Learning audit
- Data analysis
- Collation of photographic evidence of learning and planning evidence
- Learning Walks
- Formulation of Curriculum Guides, to be completed for each coming term
- Displays
- Resource purchase/availability, resource audits and resource accessibility
- Policy updates
- Support of Continued Professional Development

The over-riding task must be to provide support for all who participate in Maths and so improve the quality and continuity of Maths teaching and learning throughout the school.

Approved by the Chair of Governors

Reviewed: Spring Term 2010 Autumn 2012, Spring 2014, Spring 2015, Spring 2017, Spring 2019, Spring 2020, Summer 2022, Summer 2026