



*Total Education Services - Total Tuition Alternative Provision - Rosewood Independent School
Subsidiaries of JWA Holdings Limited*

Mathematics Policy

This policy should be read in conjunction with the *Teaching and Learning Policy*, any related subject policies and the following:

Other documents that support the teaching and learning of Mathematics:

Marking guidelines

Throughout this policy parents denotes those with parental responsibility.

1. Mission Statement

Mathematics involves confidence and competence with numbers, measures, geometry and statistics. It is essential to develop mathematical skills to gain an understanding of our world. The acquisition of skills, which improve as a result of practice, can help to develop powers of logical thinking, imagination and an awareness of accuracy.

Through experience, children develop a sense of the size of a number and its relationship to other numbers in the number system. Children learn to use language to describe number patterns and relationships from the Early Years onwards. Mathematics can be used to present information in many ways. Figures and symbols can be manipulated and combined.

By using mathematics in the context of everyday situations, children learn to relate these abstract principles to problem solving and to apply them in other fields, for example science, geography and technology.

1.1 Aims and Objectives

- To encourage a positive, confident, enthusiastic and curious attitude to maths;
- To develop fluency in the fundamentals of mathematical skills and knowledge with quick recall of basic facts;
- To foster the use of mathematical knowledge to solve real-life problems; to develop an awareness of the uses of maths in the world beyond the classroom and to give children skills for the future (e.g. for managing their own finances and punctuality);
- To develop Belmont children into competent mathematicians, able to use and communicate a variety of independent mental and written strategies;
- To develop knowledge, skills and understanding in all areas of the National Curriculum programme of study for mathematics;
- To ensure continuity and progression in the provision of mathematical experiences in school;

- To developing an understanding of maths and ability to reason mathematically through following a line of enquiry, conjecturing relationships and generalisations and using higher order thinking skills to justify an argument;
- To develop the understanding and correct use of mathematical vocabulary;
- To develop an awareness of the creative and aesthetic aspects of mathematics through an appreciation of pattern and the ability to identify relationships.

2. Approaches to Teaching and Learning

The teaching of mathematics is planned and delivered by adopting a White Rose Maths approach. This means making sure all children have the same opportunities to learn and the support they need to fully grasp concepts. The philosophy behind White Rose Maths also focuses on making maths fun for children and helping them to find enjoyment in number problems.

Our small step approach is designed to ensure that students will come back to topics time and time again, both within the study of the same area of mathematics and in other areas so that they will continue to deepen their understanding through this revisiting and interleaving

There is a balance between oral and written work to develop and consolidate skills and understanding. Discussion and collaboration between pupils is encouraged whilst using concrete (physical resources) pictorial and abstract concepts.

2.1 Language development

Maths has its own vocabulary and certain words have a mathematical definition which is distinct from the more common meaning e.g. difference. Correct mathematical vocabulary is introduced during daily maths lessons and built upon as children progress through the centre. Key vocabulary is displayed in classrooms.

3. Resources

The setting has a selection of maths resources to enable children to select certain materials appropriate for a task. Other resources are centralised under the supervision of the teachers and centre staff. To aid teachers in the delivery of the curriculum, there are a number of resources available. Teachers source materials and resources from a variety of avenues to enrich each child's learning of maths. Children use resources such as base ten and place value counters to help them really understand numbers before moving onto representing calculations in pictorial and abstract form. See calculation policy.

4. Learning Environment

Please refer to the Teaching and Learning Policy.

5. Planning

We plan for continuity and progression throughout the centre by using the Mathematics programmes of study for Key Stages 1 and 2. Weekly planning is completed by individual teachers in order to meet the needs of their individuals and group and may be adapted in the course of the unit, as required. Planning is inspired by the small steps linked to White Rose mathematics.

6. Assessment

Children complete an assessment before they begin a particular unit to identify what they know and gaps in understanding. Children will complete the same assessment at the end of the unit to show progress. Children will complete an end of term assessment to show progress and understanding all related to the White Rose small steps.

7. Cross Curricular Opportunities

Pupils are encouraged to apply their mathematical knowledge to other subjects such as science, history and geography. Mathematics is often put into context relating to matters within everyday life.

7.1. Reading, writing, communication, maths and computing

The interactive nature of lessons provides opportunities for children to develop skills in the key areas of speaking and listening, using skills in reasoning, generalising and explaining. Other language skills are also developed through independent and guided activities. Children use reading skills to draw out relevant information that will enable them to solve problems. They develop and refine appropriate methods of recording and explaining their maths through written, oral, symbolic and diagrammatic means.

Computing is integrated into the delivery of maths where applicable. It is used as an essential tool to assist in calculation, generating patterns and organising and interpreting data. Teachers are expected to use interactive resources as a tool to enhance the children's learning.

7.2 Foundation subjects

The school's topics provide many appropriate contexts for the teaching and learning of mathematics. Mathematical skills are developed within the context of other subjects.

For example:

Science and D.T. – measurement e.g. of temperature, capacity, weight and data handling

Art, R.E. and Music – symmetry, patterns and sequences

Geography – map skills: co-ordinates, scale

History – chronology: timelines, dates

P.E. – shape, balance, transfer of weight, scoring, averages

7.3 Spiritual, Moral, Social and Cultural development (SMSC)

Please refer to the Teaching and Learning Policy.

8. Enhancing the Curriculum

8.1 Enrichment

To enrich the curriculum further, we will allow children to visit other areas of the settings creatively to support maths and other core subjects where possible and appropriate, such as using the teaching kitchen to use measurement in action.

We also have termly STEM days to encourage children to think and solve problems to develop key skills.

9. Inclusion

Please refer to the Teaching and Learning Policy.

10. Health and Safety and Safeguarding

Please refer to the Teaching and Learning Policy.

10. Roles and Responsibilities

Please refer to the Teaching and Learning Policy.

Policy:

Jennifer Wood, Centre Director

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