

Maths Policy

September 2017



Saint Augustine Webster
Catholic Voluntary Academy

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Mathematics Policy

Mathematics is a tool for everyday life. It helps us to make sense of the world and in order to function in society we need to be able to communicate mathematically. Therefore, at Saint Augustine Webster we consider mathematics an integral part of each child's development and aim to ensure that all the children in our care leave school with high standards of numeracy.

Our Aims

- To promote a positive attitude towards mathematics and foster a fascination in its practical application so that our children not only understand its use, but also see it as an enjoyable area of the curriculum.
- To develop children's competence and confidence in mathematical knowledge, concepts and skills.
- To develop an ability to solve problems, to reason, to think logically and to work systematically and accurately in applying mathematics across the curriculum and in real life practical situations.
- To develop children's initiative and ability to work both independently and in co-operation with others.
- To provide a mathematics curriculum that challenges and extends the learning of each individual child.
- To encourage children to take responsibility for their own learning by understanding their successes and knowing what they need to improve.
- To raise standards by having high expectations of each child.
- To meet the requirements of the 2014 National Curriculum for mathematics.

Breadth of study

We ensure that our aims are fulfilled by providing worthwhile and relevant mathematical experiences. All teachers use Focus Education for Mathematics and the WhiteRose Maths to ensure that all parts of the National Curriculum Programme of Study are taught. Through careful planning and preparation we aim to ensure:-

- Provision of a stimulating learning environment.
- Provision for the needs and interests of each individual pupil, including all attainment groups, gifted and talented children and children with special educational needs.
- Use of problem solving and reasoning activities to challenge pupils to apply their mathematical knowledge.
- Use of practical activities and mathematical games.
- Guided group work with open and closed tasks to challenge and assess

understanding.

- Individual, group and whole class discussion and activities.
- Repetitive practice to ensure secure retention of facts.
- A range of methods of calculating including mental and written.
- Weekly times tables practice and record of improvement.
- Use of stimulating and motivating ICT packages to aid practice, understanding and application.
- Opportunities to take part in outdoor learning activities that consolidate and promote maths skills.

A range of resources are used with in school including WhiteRose Maths resources, Testbase, Rising Stars, Focus Education, Big Maths, Numicon, Mathletics etc and an array of concrete resources are available both in classrooms and in the Maths resource area located outside the year 1 classrooms.

Organisation of Teaching

The teaching of Mathematics at Saint Augustine Webster is based on the following key principles: a mathematics lesson each day; clear lesson objectives; clear success criteria with a focus on direct, instructional teaching and interactive oral work allowing children to talk through processes and their learning; an emphasis on mental calculation; written and practical practice; and evaluation. All lessons include a concrete, pictorial and abstract approach enabling fluency and accuracy which also includes use of bar modelling for a range of topics.

All teachers and teaching assistants in our school understand that children have different styles of learning and organise their strategies accordingly. There are several elements of direct teaching which we have adopted which include:

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| - Explaining and illustrating | - Directing |
| - Instructing | - Demonstrating |
| - Questioning and discussing | - Consolidating |
| - Evaluation of pupil response | - Summarising |

The teaching approach adopted will depend upon the concept to be delivered and the learning needs of the pupils. All staff have been provided with a list of strategies to draw upon to engage learners.

Lessons are planned using a common planning format and are monitored by the mathematics co-ordinators each half term.

Teachers of the Foundation stage base their teaching on age related statements within 'Development Matters' and ensure all children are working towards the Early Learning Goals for Mathematics.

The typical daily Mathematics Lesson

A mathematics lesson is 60-75 minutes each day, depending on the age of the children. This will include oral work and mental calculation where the class will work to rehearse, sharpen and develop mental and oral skills. A main teaching activity/focus and the children reviewing what they have learnt. Misconceptions will be solved either on an individual or small group basis throughout the lesson.

Cross Curricular links

As we follow a Creative Curriculum which is more topic based, there are more opportunities to extend and promote mathematics. Teachers take advantage of all practical opportunities to make links wherever possible to other areas of the curriculum so that children have the opportunity to think logically and deal with abstract concepts and skills across the whole curriculum.

Inclusion

All teachers have a responsibility to ensure that all pupils, irrespective of gender, ability, race and social circumstance, have access to the mathematics curriculum. Differentiated learning opportunities are indicated in all short term planning.

It is expected that the majority of pupils will work to achieve the age related Class Track objectives for the mathematics curriculum applicable to their year group. If, however, an individual is recognised as having SEND, action is taken in accordance with the Special Needs Policy in liaison with the SEN Co-ordinator. Where applicable, children's agreed outcomes from their SEN support incorporate suitable objectives from the 2014 National Curriculum for Mathematics. We support children with English as an additional language in a variety of ways within the lesson including using picture clues, promoting use of first language thinking, emphasising key words, playing mathematical games etc. A number of intervention programme resources are available. For children who need extra support, we use the Early Mathematics Intervention programme. Resources for use in both Key Stages include Numicon Closing the gap intervention programme.

A register of Gifted and Talented pupils is updated annually. Teachers provide appropriate challenges for children who are high achievers in mathematics. In order to deepen understand and learning teachers will provide rich challenging activities in order to create a greater depth of learning.

ICT

The importance of ICT is acknowledged and it is used to support the objectives of the mathematics lesson whenever possible. Staff have been provided with details of web sites to support their teaching. We currently follow a Computing scheme of work where children have to learn lots of algorithms and this broadens their experience of using maths in a real and abstract way. In EYFS and Year 1 learning stories and journeys are recorded using apps such as 'Comic Strip, ' to record children's learning and progress.

All children from Reception – Y6 are registered on the Mathletics programme which combines fun Mathematics competitions with regular practice for the National Curriculum 2014 mathematics objectives. This is accessible both in school and at home for those with computers. A lunchtime club is provided for those without computer access at home.

Marking

In Mathematics, we follow the Academy Marking Policy where teachers; indicate success, indicate improvement/next steps, give improvement suggestions, provide time for the children to reflect on and respond to the marking by making the improvement and checking the improvements made by initialling or responding.

A range of effective marking and feedback strategies are used such as verbal feedback where discussion with the child takes place, key word marking, success criteria checklists, peer and self-marking and quality feedback comments.

Marking clearly shows what a child understands and also what they have to do to improve. Teachers look to identify misconceptions as opposed to careless errors.

Assessment

Teachers make regular assessment of each child's progress and record these systematically. Assessments are carried out in accordance with the school assessment policy.

A range of assessment tools both formal and informal are used to identify areas for improvement and to set targets. Individual progress in Mathematics is recorded on the Class Track Assessment system.

Informal assessment is an integral part of daily teaching and informs the teacher of the next steps need for their next day of teaching. Teachers will make professional judgements based upon children's work, discussions with children, observations and response to challenges.

Pupils are given the opportunity to assess their own work against the success criteria in order to understand their learning needs and identify any areas of weakness or lack of confidence.

Formal testing takes place at the end of KS1 (Year 2) and KS2 (Year 6). Teacher assessment is also used to validate results.

Early Years Foundation Stage Profile Assessments are undertaken at the end of Reception and assessment is now undertaken on entry to the Nursery.

All forms of testing are used to analyse progress, to assist planning and to set targets.

Reporting to parents

Parents are advised about the mathematical progress of their child at the Parent's evenings during the Autumn and Spring Terms. Any individual concerns are communicated as and when required. Formal reports are written before the end of the Summer Term.

Ongoing improvements and achievement in Mathematics are recognised within each class with the 'Mathematician of the Week' award. In the Mathletics programme, there is an option for parents to sign up to a weekly progress update by e-mail.

Parental involvement and homework

We aim to encourage parents to be active partners in the development of maths skills.

Parents are invited in to school twice yearly to look at their children's work. When any significant new strategy or resources are implemented, parents are invited to a meeting in school to explain it to them.

Short homework tasks related to daily/weekly learning objectives are set as required. This is done either as a piece of work in a homework book (differentiated by ability) or by working on own objectives within Mathletics (1000 points a week are encouraged). Parents of KS1 children are encouraged to support their children with recall of number bonds and doubles/halves and parents of KS2 children are asked to concentrate on developing their child's recall of multiplication tables and related inverse division facts. Meetings are held to discuss national testing and we seek to involve parents in preparing their child for testing.

Monitoring and Evaluation

The Mathematics co-ordinating team consist of members of the SLT and KS1/KS2 co-ordinators. Regular meetings are held to monitor and evaluate the quality and standards of mathematics throughout the school.

The Maths coordinating team liaise with, supports and assists members of staff to promote effective mathematics teaching throughout the school as required. They also:

- Attend courses to update their skills / knowledge of curriculum.
- Disseminate relevant information.
- Regularly review the mathematics policy.
- Provide required INSET.
- Report key issues to the Head Teacher, Leadership Team and Governing body.
- Observe colleagues and quality of Learning and Teaching with the Head teacher.
- Lead by example.
- Collect samples of work and undertake work scrutiny to monitor standards.
- Monitor the planning of teaching of mathematics each half term.
- Produce reports as required by the Head Teacher.
- Develop links with other feeder schools.
- Develop links with the secondary school.
- Run a weekly Challenge Club to promote fun and challenging mathematical activities.
- Arrange activities for events such as World Maths Day and transition events for year 5 and 6 children.
- Upload key mathematical information for all staff onto the shared server on the school network.
- Ensure staff have the opportunity to attend relevant training.
- Use budget to buy appropriate resources and equipment as required.
- Keep resource areas up to date.
- Work cooperatively with the SENCO.

Resources

All teachers have an area within the classroom dedicated to mathematics resources. This area is easily accessible to children and allows them to become familiar with all resources. Resources which are not used or required regularly, are stored centrally. These are stored in the Mathematics cupboards outside the Year 1 classes. There is a list of all mathematics resources kept in the Co-ordinator file.

Governing Body

The Numeracy Governor is Mr Andrew Zaborowski. He meets with the Mathematics coordinator once a year and is kept fully up to date with changes of policy or practice as required throughout the year.

Mr R Dickinson, Mrs K Matthews, Miss K Lamont and Mr R Murphy
The Mathematics Co-ordinating Team

(In consultation with other colleagues and the Governing Body)

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