Hunslet Carr Primary School



Mathematics Policy

High expectations Caring Positive attitude Successful

Policy reviewed: January 2017

Next review: January 2019

High Expectations, Caring, Positive Attitudes and Successful

STRENGTHS OF OUR SCHOOL



The Children

Are well behaved, calm and polite Are engaged, positive and resilient Are supportive and helpful towards others Have an input on important decisions Have a sense of belonging

The Community

School supports the whole family not just the child Recognises the importance of attendance Spreads our growing reputation as a good school Helps celebrate the children's achievements Supports the school on improving behaviour

The Curriculum

Is a fun curriculum that is engaging Maintains a strong focus on the basic skills Is enriched through extra-curricular activities Supports our most vulnerable children Provides a rich variety of experiences & opportunities

The Staff

Develop nurturing relationships with children Provide good quality teaching and learning Support one another to help the children Are consistent in how they treat children Identify children's SEN needs early

THE CURRICULUM WE HOPE TO PROVIDE



Skills

Fluent and confident in Reading, Writing and Maths Communicate with confidence ICT skills fit for the future Life skills – social, money, time, cooking Safety skills – Swimming, healthy choices Problem solving skills – Patience & Resilience

Attitudes

Confident, proud and independent The believe that 'Impossible is Nothing' Understand and celebrate a range of cultures Take responsibility for themselves & others Be honest and learn from their mistakes Respectful, caring and helpful

Experiences

To have 1st hand experiences of... Going away on a residential trip Visiting a range of places of worship A chance to look after an animal Relevant trips to theatres/farms/beaches Taking part in public performances Work experiences & further education

Knowledge

High school ready English & maths To know about local places of interest To know where we are in the world Life skills – money, time, cooking Information about possible careers To know major historical facts To know their own strengths

Purpose of the Policy

The purpose of the policy is to inform staff, governors, parents and other interested parties of our approach to the teaching of Mathematics at Hunslet Carr.

<u>Rationale</u>

Maths plays a very important part in most aspects of our lives including every day situations and in the world of work. Maths covers a wide range of areas including number, shape and space and handling data. Maths can be used to represent or communicate ideas to predict, to explain or verify.

Consequently our children have an entitlement to develop their mathematical capabilities.

<u>Aims</u>

For pupils at Hunslet Carr to:

- Gain confidence and pleasure in maths and develop a positive attitude towards it.
- Appreciate the versatility of maths and why it is important.
- To increase their own knowledge, skills and understanding of maths.
- To be able to select the appropriate skill, resource or concept to solve a given task.
- Develop personal and social skills needed for independent and co-operative maths tasks.
- Develop mathematical reasoning skills and ability to explain, justify and prove how an answer is reached.
- Given the opportunities to use ICT to learn in maths.
- To use maths in all areas of the curriculum.
- Cover all aspects of maths as set out in the National Curriculum.

Teaching and Learning

As teachers it is important that maths is taught in a variety of ways. There is scope to use whole class, group and individual work in teaching maths and it vital that children receive these various styles. Children need to be given a variety of tasks including practise and consolidation, investigations and problem solving. Maths should be used in all areas of the curriculum and it is important to ensure that the teaching of maths is not done solely in the numeracy hour. It is important that within our planning a balance is obtained in all these areas of provisions. To this end links are being made within cross curricular plans.

Progression in Maths

The school is using Abacus by Pearson as our framework for teaching Maths which is a developmental programme that is matched to the new National Curriculum. As well as having access to Abacus, teachers are encouraged to use the Teejay textbooks, White Rose Maths HUB website, NCETM website and to draw on their own experiences, skills and knowledge.

Foundation Stage

Children will build on their previous experiences at home and in play by participating in practical maths in a variety of areas of provision.

<u>Key Stage 1</u>

Children will be taught a variety of skills and concepts and be encouraged to begin to select the appropriate one for a given task. The emphasis will be on developing a sense of number through models and images. The school has invested heavily in Numicon although we encourage other models and images to be used so that children have a rage that can help them understand a concept. There will be some informal recording of maths as set out in our guidelines on recording maths, the children will begin to learn different arithmetic methods (refer to our Visual Calculation Policy).

<u>Key Stage 2</u>

Although the emphasis is still very much on developing a sense of number, children will be taught a wider range of skills and concepts which become increasingly more complex. They will become more discerning in their selection of skill, concept or resource for the given task. They will be recording at first in an informal way, and then gradually developing the use of a standard written method for arithmetic calculations (refer to our Visual Calculation Policy). The children's ability to reason mathematically will be developed with opportunities for them to explain, justify and prove maths, both verbally and written.

<u>Planning</u>

The long term planning follows the framework given by Abacus by Pearson which is matched to the new National Curriculum and the Early Years Framework. The framework is implemented via medium and short term planning in line with the school planning policy.

The teachers are following the weekly plans provided by Abacus and ensuring that they match the needs of their class by editing the Word file and changing the text to Purple to reflect any changes made. When planning, teachers are encouraged to draw on their own knowledge and experiences, as well as the range of resources that are available to them, these resources include: the Abacus website, the Abacus textbooks, the Teejay textbooks, White Rose Maths HUB website, NCETM website, Maths Of The Day (Active Maths).

Within the planning Learning Objectives and Success Criteria are shared with the children at some time within the lesson, with children sometimes being given opportunities to contribute to the Success Criteria.

Assessment, Recording and Reporting

Assessment of maths can be done in a variety of ways including observation, giving an independent or co-operative task or a test. Both formative and summative assessment will be carried out.

Formative assessment is linked to short term planning and marking to inform future teaching. Summative assessment is within week 10 of each term to inform next steps, the next teacher, key stage, parents and aid target setting. This assessment will be done in line with the school assessment policy.

Record keeping will be done in line with school policy and should be done to inform planning. Teachers will make informal records i.e. jotting down individual strengths and weaknesses. They will also make formal records i.e. using the Depth of Learning and BAD milestone grids produced by Chris Quigley. Summative assessment will be recorded using Chris Quigley's DoL.

Reporting of maths will be in accordance with statutory requirements. The annual school report covers progress, effort and achievements in maths.

In the classrooms targets in the form of Non Negotiables should be displayed.

Equal Opportunities

It is important that all children are given the opportunity to develop their mathematical abilities regardless of race, gender religion, ethnic group, culture or ability. We would also plan and develop children's multi-cultural awareness making sure the curriculum reflects the wider community. Children need relevant experience and language to access maths curriculum successfully.

Special Needs

Children on the SEND register and who have difficulties in Maths will be planned for. This extra provision will be recorded on the school provision map.

The school might meet children's needs through our school's Every Child a Counter intervention. Other options may include specific maths teaching within a child's Individual Education Plan (IEP) these will be agreed and reviewed in conjunction with the Special Needs Co-ordinator, Class teacher and parents.

Differentiation

Maths provides a good opportunity for differentiation based on:-

- □ Resources (e.g. providing number tracks)
- 🗆 Outcome
- □ Progression (e.g. highlighting different skills for different children)
- □ Task (e.g. setting different tasks within one topic)
- □ Support (use of support staff)
- Differentiated Success criteria

Children should be allowed to work at their own level of attainment, with teachers giving the children the same area of mathematics to be working on wherever possible. Teachers work with the intention of ensuring that children "master" each area of mathematics so that they gain a deeper understanding of it and are not quickly moved on to something else.

Calculators

In late key stage 2 calculators will be used for teaching children properties of numbers, place value, patterns and playing games. Children will be taught the appropriate use of calculators for calculating. Although calculators no longer form a part of formal assessments, using a calculator is still a skill which we give our pupils the opportunity to experience.

<u>ICT</u>

Each year group has daily access to either Lap tops or iPads which can be used by children to support the teaching of Maths. Each child has a unique log in to Abacus where the teacher is able to set games for school and homework. Children in Upper Key Stage 2 all have their own unique log in for Mathletics and their efforts on this are rewarded through competitions, prizes and certificates in school.

<u>Homework</u>

This will be given in line with the school homework policy, with children being given "Speedy Spider Challenges", KS1 children working on their number bonds and KS2 children working on their times tables.

<u>Time</u>

To ensure there is adequate time dedicated to the teaching of Maths, each class teacher is expected to provide a daily Maths lesson for mathematics, which should last 45 – 60 minutes in Key Stage 1 and 50 to 60 minutes in Key Stage 2. In the foundation stage the aim will be to prepare children for a 45 minute lesson in year 1.

Each week in KS1 and KS2 there should also be two 30 minute sessions dedicated to developing arithmetic methods and skills.

It is also important for time to be found in other subjects.

<u>Displays</u>

Each classroom and learning environment should have a mathematics learning wall in line with the school's Display Expectations Document. This learning wall is an interactive resource for the children which will change and be updated in relation to the unit of mathematics currently being worked on in lessons.

Basic Number Knowledge

In order to improve the basic number knowledge and skills of the children, a termly competition is run in Key Stage 1 and Key Stage 2. In Key Stage 1, there is a number bond challenge which involves children from each class competing against each other on their basic number bonds. In Key Stage 2, there is a times table challenge which involves children from each class competing against each other on their times tables. In order to promote and encourage children to work on their number bonds and times tables, teachers will do exercises and play games relating to them in class.

Active Maths – Maths Of The Day

One way in which maths is linked to another area of the curriculum is through Active Maths. Active Maths combines Physical Education and Mathematics to help engage children in practical mathematics activities which involve working together as a team and deepening their understanding of areas covered in the classroom. The Maths Of The Day website is a resource available to all teachers and they are encouraged to try to teach an Active Maths lesson every fortnight.

<u>Resources</u>

The school has a wide range of resources.

The school has purchased the Abacus by Pearson scheme which our planning framework is based on. To run alongside this there are Abacus textbooks available.

The school has ensured that each classroom also has a Teejay textbook.

Each child in KS1 and KS2 has their own arithmetic test booklet which is to be worked on in one of the weekly arithmetic sessions, with the other session being a follow-up to go over areas from the last test that needed more work.

Children in Upper Key Stage 2 all have their own Mathletics accounts where they can work on their maths at home and play maths games.

We also have invested heavily in Numicon equipment.

There is also a basic range of essential equipment in each classroom and shared equipment stored along the Library corridor.

Safety and Care

The safe use of equipment is to be promoted at all times in line with the Health and Safety Policy.

The Role of the Head teacher

- To ensure that the National Curriculum is implemented
- To encourage and support the subject leader's approach to Maths development across the curriculum
- To support and encourage all staff in the teaching of maths
- To make available the necessary resources to continue the development of Maths within the school budget
- To promote Maths in school

The Role of the Subject Leader

- To promote maths in school
- To provide a good example of the teaching of Maths in the classroom
- To ensure resources are available
- To plan and implement future developments of Maths through action plans
- To review and monitor both the planning and teaching of Maths
- To work alongside staff when required
- Attend relevant courses and disseminate information to staff
- Arrange INSET courses for staff
- Organise the acquisition of new resources
- Support colleagues
- Encourage parental involvement

Role of the Staff

- To ensure that Maths is used in the classroom in line with the National Curriculum
- With the support of the subject leader and head teacher to implement any changes in the teaching of Maths
- To ensure there is equality of opportunity in the teaching of Maths
- To inform the co-ordinator of any problems which may arise in the implementation of Maths
- Teach and assess the children the non-negotiables for their age range.

Role of the Governing Body

The governors will monitor the development and implementation of Maths in school.

<u>Review</u>

This policy is to be reviewed every two years (January 2019).

C. Sharpe

Maths Subject Leader

January 2017.