



# Policy for Mathematical Understanding

## Why is this area of learning important?

Mathematics introduces children to concepts, skills and thinking strategies that are essential in everyday life and support learning across the curriculum. It helps children make sense of the numbers, patterns and shapes they see in the world around them, offers ways of handling data in an increasingly digital world and makes a crucial contribution to their development as successful learners.

We would like our children to experience the delight of using mathematics to solve problems, especially when it leads them to new connections. We also want children to be able to have life skills which enable them to function in the real-world.

## What traditional subjects does this policy cover?

Following the Rose Review of the curriculum, individual subjects now come under different areas of learning. The Mathematical Understanding Area of Learning incorporates the following subjects / strands of the National Curriculum:-

- Mathematics (All aspects)
- ICT (Spreadsheets, Databases)
- Science (Data Handling)

This list is not exhaustive. Occasionally, mathematical understanding would appear at other times, such as in PSHCE, Music and Design Technology.

For further information, please consult the National Curriculum Primary Handbook.

## Teaching Methods and Planning

Teachers plan lessons that are cross-curricular wherever possible, although we acknowledge that on some occasions, skills need to be taught discreetly. Planning comes in different forms according to the situation. Aspects of English and Maths are planned weekly, with key objectives and outcomes made clear. Specific use of TAs within the lesson are also noted where applicable. Outside of these subjects, planning is usually completed for the half term, making clear the cross-curricular links.

Teachers use a range of teaching strategies and methods to provide the best possible learning experience for our children. We understand that children learn in different ways, so aim to provide a mix of visual, auditory and kinesthetic activities wherever possible. Children receive the opportunities to work independently, in pairs and within larger groups so that key skills such as independence, team-working and collaborative working are covered.

Opportunities to promote community cohesion and race equality will also be provided wherever possible, reflecting the multi-cultural world that we live in.

The Headteacher periodically monitors weekly and half-termly planning. Staff are also asked to produce a cross-curricular map to show which skills and knowledge are being covered, linked to the topic.

## **Assessment**

Assessment forms a key part of the teaching and learning process. Within the Mathematical understanding strand, both assessment for learning and summative assessment form are key to helping children progress.

Higham St John's use some of the APP resources for mathematics which helps identify next steps and areas of weakness. Targets are shared with the children on a regular basis, through daily lesson objectives, through to half-termly or on-going personal targets. Teachers also use a range of methods within each lesson to assess learning and understanding. (e.g. Talk partners, whiteboard work, thumbs up/down, questioning)

Marking of children's work follows the 'Marking and Feedback' Policy

School also uses the following summative assessment:-

Maths – Termly tests. *These provide leveling information as well as QLA (question level analysis) data.* In the Summer term, the QCA tests are used.

Science – Children are given topic tests where appropriate to assess understanding after a unit of work has been completed.

Note: Some of these tests are completed verbally, or within groups, especially with the younger children.

At Year 2 and Year 6, children complete the National Curriculum tests for Mathematics. The results of these tests are shared with parents. Staff also share levels with parents at Parents' Evenings, or as required.

## **What we believe at Higham St John's**

At Higham St John's we believe that it is vital that our curriculum is tailored to the needs of the children in our care. Examples include adapting the content of the curriculum due to consideration of the age, maturity, sex, race, religious beliefs or

individual needs of the children. Therefore, annual discussions take place between staff about what we believe are non-negotiables within each subject area.

Within the Mathematical Understanding area, we aim to develop children who can cope with the many different skills needed in life.

Are there any you think we should include relating to your area? We will discuss them later.

To do this, we will adapt our teaching as required but will always provide:-

- a minimum of 4 hours of specific mathematical teaching each week
- opportunities to work in a cross-curricular and practical manner, making the area applicable to real-life situations and giving children confidence when applying their mathematical understanding
- where necessary, support and intervention for children who are falling behind, or have SEN
- opportunities for AGT children to broaden their knowledge. (e.g. *The Primary Mathematic Challenge, out of school learning opportunities, appropriate extensions*)
- opportunities to use ICT within Mathematics and Science
- The chance to take part in enterprise projects and learn about how money is used in 'real-life'

## **Budgeting / Subject Priorities / Resources / Monitoring of subject**

To ensure that mathematical understanding is promoted and developed within the school, a budget is allocated each year. This will be done through the School Development Plan. Area leaders are asked to consider how they wish the subject to develop and progress. A plan for the year is then produced and funding is bid for. Funding will then be allocated, based on need and the priorities of the school.

Area leaders will regularly be given time to develop/promote their area of learning. This may be done in a number of ways including:-

- Creating and carrying out the development plan
- Lesson observations
- Purchasing of resources
- Attending training (and feeding back to staff where appropriate)
- Data analysis (working with the Assessment Co-ordinator)
- INSET / Staff meeting time

The Area Co-ordinator will report back verbally to the Headteacher / Deputy Headteacher periodically as well through the development plan.

## **Health and Safety**

This Area of Learning has few Health & Safety issues, however, teachers will always ensure that risks are minimized through careful planning and through educating / making the children aware of potential hazards.

## **Links to other policies.**

Other policies that are linked to this policy include:-

- Written Calculations Policy
- Health and Safety Policy (and guidance document)
- Marking and Feedback Policy
- Internet Safety Policy
- Foundation Stage Policy

**Signed:** \_\_\_\_\_ **(Headteacher)**

**Signed:** \_\_\_\_\_ **(Chair of Curriculum Committee)**

**Next Review Date: Spring 2019**