

# *St. Bernadette's Catholic Primary School*

## **Mathematics Policy**

The Mission for St Bernadette's Catholic Primary School is,

*“to ensure a happy and secure learning environment where we celebrate the dignity and worth of all in our school community.*

*As a Christian community we recognise that in loving others we love Jesus and so help each other to reach our full potential.”*

Therefore the development and implementation of our Mathematics Policy supports us in achieving our mission for all the children in our care.

Mathematics is a tool for everyday life. It is a whole network of concepts and relationships which provide a way of viewing and making sense of the world. It is used to analyse and communicate information and ideas and to tackle a range of practical tasks and real life problems. It also provides the materials and means for creating new imaginative worlds to explore.

*Using the Programmes of Study from the Renewed National Curriculum Framework for Mathematics, it is our aim at St. Bernadette's School to develop:*

- *a positive attitude towards mathematics and an awareness of the fascination of mathematics.*
- *competence and confidence in mathematical knowledge, concepts and skills.*
- *an ability to solve problems, to reason, to think logically and to work systematically and accurately.*
- *Initiative and an ability to work both independently and in cooperation with others.*
- *an ability to communicate mathematics*
- *an ability to use and apply mathematics across the curriculum and apply it in real life situations*
- *an understanding of mathematics through a process of enquiry and experiment*

## **Knowledge Skills and Understanding**

At KS1 and KS2 teachers use the renewed NNS Framework for Teaching Mathematics to ensure that all parts of the National Curriculum Programme of Study are taught.

Opportunities are offered to children to develop their mathematical knowledge and skills through tackling problems and through purely mathematical activities.

Activities are balanced between those which are short in duration and those which can be developed over a longer period.

Children are involved in both individual and group work.

Children experience open-ended as well as closed tasks.

Children are taught a range of methods of calculating. eg. mental, pencil and paper, using a calculator. (See calculations policy)

Children are encouraged to develop skills in using a wide range of mathematical tools through practical work (including computers).

Children are enabled to develop their personal qualities and a positive attitude to mathematics through the experiences offered to them.

Through careful planning and preparation we aim to ensure that throughout the school children are given opportunities for:

- practical activities and mathematical games
- problem solving
- individual, group and whole class discussions and activities
- open and closed tasks
- a range of methods of calculating eg. mental, pencil and paper and using a calculator
- working with computers as a mathematical tool

## **SCHEME OF WORK**

*Our school scheme of work is a working document and as such is composed of ongoing plans produced on a week by week basis. This is developed from the Renewed NNS Framework and supported by resources from the Abacus scheme, taking into consideration the needs of our children.*

## **CROSS-CURRICULAR ISSUES**

Throughout the whole curriculum opportunities exist to extend and promote mathematics. Teachers seek to take advantage of all opportunities.

Focused maths days and weeks are planned to allow for whole school approach to cross curricular planning.

## **TEACHERS' PLANNING AND ORGANISATION**

Each class teacher is responsible for the mathematics in their class in consultation with the mathematics coordinator.

The approach to the teaching of mathematics within the school is based on three key principles:

- a daily mathematics lesson.
- a clear focus on direct, instructional teaching and interactive oral work with the whole class and groups.
- an emphasis on mental calculations

Teachers of the Foundation class and Key Stage 1 use a very practical approach to teaching maths and children develop written methods as appropriate. See Calculations policy.

## **SPECIAL EDUCATIONAL NEEDS**

Children with SEN are taught within the daily mathematics lesson and are encouraged to take part when and where possible (please see the section on differentiation).

Where applicable children's IEPs incorporate suitable objectives from the NNS Framework and teachers keep these objectives in mind when planning work.

When additional support staff are available to support groups or individual children they work collaboratively with the class teacher. A feedback sheet is given to the class teacher at end of the lesson

Within the daily mathematics lesson teachers not only provide activities to support children who find mathematics difficult but also extension activities that provide appropriate challenges for children who are high achievers in mathematics.

## **EQUAL OPPORTUNITIES**

St Bernadette's Catholic Primary School is an inclusive community and provision is provided for all pupils regardless of gender, English as an additional language and ability as outlined in *The Equal Opportunities policy*.

## **RECORDING PUPIL'S WORK**

There are occasions when it is both quick and convenient to carry out written calculations. It is also important to record aspects of mathematical investigations. Children are taught a variety of methods for recording their work and they are encouraged and helped to use the most appropriate and convenient method of recording. (See calculations policy)

Children are encouraged to use mental strategies before resorting to a written method.

- Foundation and Key Stage One: practical activities and informal recording
- Key Stage Two: more formal recording in squared books.

All children are encouraged to work tidily and neatly when recording their work. Date should be written numerically. When using squares one square should be used for each digit.

## **Marking**

Each day the teacher will assess and quality mark one group of pupils to aid APP in maths. (See marking policy for more information)

Pupils use a traffic light system to show how well they have understood the lesson.

In lower Key stage 2 children begin to traffic light their work so that in Upper Key stage 2 this becomes part of the daily self evaluation.

## **Assessment and recording**

The formative assessments that teachers make as part of every lesson help teachers to adjust their daily plans. They use formative (APP) and summative assessments (End of Key Stage tests and Optional Tests in Key Stage 2) to measure progress against the key objectives, and to help them plan for the

next unit of work. Formative and summative assessments are used to evaluate progress against school and national targets. RAISEonline, Lancashire Tracker and other school data are used as the basis for planning work for the new school year.

Children undertake the national tests at the end of Year 2 and Year 6, plus the optional national tests at the end of Years 3, 4 and 5 to inform teacher assessment and APP judgements. At the end of each term, assessments of Mathematics are recorded using the Assessing Pupil Progress (APP), drawing on a range of evidence to inform their level judgments. Curricular Targets for mathematics are agreed each term, based on the outcomes of the APP assessments.

## **Differentiation**

There are children of differing ability in all classes at St Bernadette's Catholic Primary School. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies.

- *Stepped Activities which become more difficult and demanding but cater for the less able in the early sections.*
- *Common Tasks which are open ended activities/investigations where differentiation is by outcome.*
- *Resourcing which provides a variety of resources depending on abilities.*

We use teaching assistants to support some children and to enable work to be matched to the needs of individuals.

## **Resources**

There is a range of resources to support the teaching of Mathematics across the school. All classrooms have *an area within the classroom dedicated to mathematics resources. This area is easily accessible to all children and allows them to become familiar with all resources.*

*Resources which are not used or required regularly are stored centrally:*

Children have access to the Internet through their classroom computer and/or the shared laptop provision (see Internet/Esafety Policy)

## **Monitoring, evaluation and review**

Monitoring of the standards of the children's work and of the quality of teaching in Mathematics is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of Mathematics, being informed about current developments in the subject by

attending county subject leader meetings termly, and providing a strategic lead and direction for the subject in the school. The subject leader meets with the head teacher and gives the governors an annual summary report in which she evaluates the strengths and weaknesses in the subject, and indicates areas for further improvement. The leader has specially-allocated management time in order to enable her to review samples of the children's work and undertake lesson observations of Mathematics teaching across the school. The named governor responsible for Mathematics meets regularly with the subject leader in order to review progress.

The quality and effectiveness of the Mathematics curriculum will be monitored and evaluated through regular reports to the Governors' Curriculum committee, and a vigorous programme of whole School self-evaluation. The school will review this policy annually and assess its implementation and effectiveness. The policy will be promoted and implemented throughout the school.

### ***REPORTING TO PARENTS***

A report on a child's achievement and effort in Mathematics is sent to parents at the end of the Autumn and Spring terms and an End of Year Report at the end of the summer term. Parents are given the opportunity to discuss their child's progress on these separate occasions.

Teachers use the information gathered from their APP assessments to help them comment on individual children's progress.