

# **IQRA INDEPENDENT SCHOOL POLICY**

## ***Mathematics Policy***

Date	August 2007
Author	School Manager - Eram Sheikh
Review date	Sept 2010





## **Iqra Mathematics Policy**

### **Rationale**

The National Curriculum provides the common framework for the Maths curriculum of the school. We believe that maths provides a way of viewing and making sense of the world. Therefore, our aim is to give pupils a solid foundation in maths by presenting structured activities, which will give not only the knowledge, skill and understanding to enable them to use maths confidently but also the ability to communicate it. Children will be able to develop ideas, arguments, prove and predict whilst at the same time giving them opportunities to enjoy, explore and investigate maths itself.

### **Aims**

At Iqra we aim to:-

Give all children equal access to the whole mathematics curriculum

Ensure that all children experience success

Enable each child to achieve his/her potential

Develop mathematical thinking through mental and written activities

Provide opportunities for children to explain their thinking and ask questions

Enable each child to work co-operatively and independently

Use assessment of children's progress to enable future planning

Ensure that resources are available and accessible and are appropriate for the age and needs of pupils.

Foster children's confidence and enjoyment in mathematical activities

Develop an inquiring and positive attitude to problems

Enable all children to acquire a mathematical language which will help them to communicate ideas and information to others through appropriate forms.

This content needs to be set in situations where children learn new mathematical ideas and use and apply what they know in practical tasks and real life situations. It is important that children



develop the skills of numeracy and are able to apply them in different situations across the curriculum and in daily living outside school.

## **Organisation and Delivery of Mathematics**

The National Numeracy Strategy provides the common framework for the maths curriculum of our School. Each child experiences a maths lesson every day. These build up, from an initial 10 minutes carpet session in our Foundation Year to a regular daily diet of an hour at Key Stage 2. Approximately 20% of Curriculum time is set aside for the teaching and learning of maths in line with national recommendations.

Mathematics is delivered through a variety of teaching methods and approaches.

Children have opportunities to use and apply their skills in a variety of relevant contexts.

We aim to create a numerate environment where mathematical risk-taking, creativity and logical thought are encouraged in order to develop independence. Mental methods and computations are encouraged.

Mathematical materials, equipment and basic resources are stored in each classroom with central stock being held in the resource cupboard.

We provide continuity and progression in mathematics, which enables children to work confidently as they move from class to class. We emphasise the importance of developing links from pre-school and from primary to secondary.

### **Structure of the lesson**

Teachers will ensure that a large proportion of the Maths lesson is spent in direct teaching to groups or whole classes with the rest of the time spent on individual practice.

Lessons will be clearly structured with clear beginnings and endings.

There will be a good pace of work.

Teachers will give clear explanations and use effective questioning.

Teachers will ask pupils to demonstrate and explain thinking.

The overall structure of most lessons will be as follows:

- Oral work (including tables) and mental calculation 10 – 15 minutes (whole class works to rehearse, sharpens and develop mental and oral skills)
- The main Teaching activity (about 30 – 40 minutes) to include interactive teaching input and pupil activities, pupils will work as a whole class, or in attainment groups.

A Plenary of about 10 minutes, with the whole class, to identify progress, summarise key facts and ideas, (what to remember), to make links with other work and to discuss next steps.



## **Planning**

### **Long term planning (over one year)**

The Numeracy Framework is the first point of reference for planning the Mathematics Curriculum at Iqra School. Its comprehensive coverage ensures that we are addressing the requirement of the National Curriculum and at the same time providing a range of activities, which will ensure progression across the full range of mathematical skills and practices.

### **Medium term planning (over one term)**

At Iqra we have taken the termly plans as outlined in the Numeracy Framework and matched them against the Letts scheme to allow us to identify resources to assist us in the delivery. This ensures that progression is maintained over the whole year and that learning objectives are systematically revisited from term to term. This allows for revision and consolidation and ensures that progress is made in secure steps.

The agreed termly plans for mathematics will be the subject of regular review and amended as the plans are implemented into daily lessons.

### **Short term planning (weekly)**

Lesson plans are derived from the termly plans. An agreed lesson plan format is in operation and reflects the tripartite structure of mathematical lessons. It highlights differentiation and opportunities for assessment and teachers are encouraged to annotate their lesson plans after they have been utilised to create a reference point for the process of self-evaluation and future maths planning.

### **Record Keeping and Assessment**

Teachers keep their own individual records on children which allow them to know where a child is in their learning in terms of knowledge, skills and understanding and to facilitate progression and continuity and inform their planning. This informal assessment may take a variety of forms such as; observation, discussion, questioning or via written work, tables tests, mathematical games and investigations.

Statutory assessment of children is carried out through Base Line Assessment and the end of Key Stage Tests in Years 2 and 6. The QCA optional tests are also carried out at the end of Years 3, 4 and 5. Analysis from these tests allows us to highlight both individual targets and whole school issues.

Summative assessment is carried out through the school via teacher Assessment and Review Lessons.



We operate an open door policy for parents and encourage their support. An annual report is issued to parents and they are invited to three Parents Evenings and an introductory Year Group Evening. Parents of Year 2 and Year 6 children are invited in post SAT's to discuss their results.

At the start of each term the children receive a target sheet to share with their parents informing them of the mathematical aims for that term.

### **Homework**

Homework is used to support mathematics through tasks such as the learning of tables. Specific tasks are set regularly by teachers in Key Stage 2.

### **Information Communication Technology**

Children are given opportunities where appropriate to develop and apply their ICT capability in their study of mathematics.

The use of computers and calculators enables pupils to explore the mathematical essence of a problem by not having to do routine calculations manually.

Generic software is available in classes coupled with data handling programs for graphs and spreadsheets.

### **Role of Maths Co-ordinator**

The role of the Maths Co-ordinator is to:-

Take the lead in policy development

Ensure progression and continuity throughout the school

Support colleagues in their development of work plans

Monitor progress in maths through sampling, analysis of SAT's and classroom observations and inform the head teacher

Take responsibility for the purchase and organisation of central mathematical resources

Keep up to date with developments in mathematics education and disseminate information to colleagues as appropriate



## **Resources**

At Iqra we do not feel it is appropriate to rely solely upon one scheme as this limits our pupils Mathematical and Numeracy experiences. Teacher generated worksheets, games and ICT software further supplement a wide range of learning resources. Resources belong to the whole school and are not the domain of one particular teacher or class. Each teacher has the necessary equipment for their own class, which is stored in their own classroom. It is the policy of the school that teachers should co-operate and share equipment when necessary.

## **Training**

The school improvement plan reflects forward planning for all staff, providing in-service training and professional development. The training needs of staff are planned in relation to the needs identified and the resources available.

## **Equal Opportunities**

Mathematics is made available to all. Different children will work at different speeds. As teachers we plan work that allows for differentiation by outcome and by task to provide equality of access for all children regardless of ability, race, gender, class and disability. We have high expectations of all children and provide opportunities for them to succeed in their mathematics work