

Mathematics is:

- an essential element of communication which is important to analyse and communicate information and ideas;
- an important tool which can be used to make sense of the world around us and should equip the child for adult life;
- one way of teaching flexibility, initiative, accuracy and systematic logical thinking
- a potential source of interest and fun

At River Bank Primary School we aim:

- to fulfill the current legal requirements of the new curriculum;
- to ensure that each child will leave our school numerate and able to use and apply Mathematics with confidence;
- to pass on knowledge and values;
- to teach skills;
- to develop understanding and encourage children to think and reason independently

Teaching and Learning of Mathematics

Mathematics is important because:

- it is widely used in society, both in everyday situations and in the world of work;
- it can be used to represent ideas, to predict, to explain and to verify;
- it is interesting and enjoyable, providing intellectual challenge and aesthetic pleasure

Our teaching at all levels includes opportunities for:

- teacher explanation and demonstration
- discussion techniques (pupil/pupil and pupil/teacher)
- appropriate practical work
- consolidation and practice of fundamental skills and routines
- problem solving
- the committing to memory and recall of a range of mathematical facts
- investigation work
- classwork, group work, individual work

At River Bank Primary School the Mathematics Curriculum is organised on a subject basis, although topic work as part of the Creative Curriculum will often include mathematical activities and cross curricular links are made wherever possible.

Mathematics is taught in groups of similar or mixed ability, individually and sometimes as a whole class activity. Homework is may be set in learning logs, where pupils respond to an open ended question, eg. Show me what you know about doubling and halving numbers.

Health and Safety – All staff are conversant with the school Health and Safety Policy and regulations. It is the class teacher’s responsibility to assess any risks to children’s safety, to record these in their planning, and to take appropriate precautions.

Planning Mathematics:

We operate a planning procedure based upon the Rising Stars planning framework interpretation of the new curriculum. We develop weekly plans from the new curriculum framework which give details of appropriate activities, outcomes and assessment opportunities. Assessment of prior learning informs the early planning process. Plans are flexible, allowing assessment for learning to inform future planning. The reception team follow the EYFS curriculum which informs the foundation stage profile.

The use and application of Mathematics to investigate and solve problems is integrated with work on number, algebra, shape, space and handling data, to help the children think mathematically and apply mathematics in different contexts. Methods of calculation taught in school are fully outlined in the separate Calculation Policy.

Resources

Each class has its own resources, however items used only occasionally are stored in the resource rooms on each school site.

Information technology is used both within the classroom during the daily mathematics lesson and in the ICT Suite, to support problem solving, data handling, exploring space, shape and measures and investigational activities. Each class has a set of ipads which have many problem solving and calculation based apps to engage and extend the learning of all pupils. Calculators are used throughout the school to enable children to work on investigations without the need to focus on calculation. They are not a substitute for pencil and paper or mental methods of calculation which are also widely practiced.

Equal Opportunities

The teaching of Mathematics will be in accordance with the current policy for Equal Opportunities. We aim to provide equal access to Mathematics for those children with Special Educational Needs (as outlined in the requirements of their IEPs) as well as those who are Gifted and Talented and require extension activities, through small group work, targeted resources and the use of classroom assistants where available. Children with EAL barriers to learning are given targeted support in class. Children should be given the opportunities to work towards the key objectives included in the new curriculum for the years above or below their current year group, if appropriate to their level of understanding.

Assessment

Children’s work will be marked as agreed in the school policy and their performance continually assessed in accordance with the assessment policy. The teacher may also test children from time to time, for example on their knowledge of times tables. The teacher passes on relevant information to other teachers and summative records, formative records, pupil profiles and pupil targets are regularly updated.

Formative assessment is used to guide the progress of individual pupils. It involves identifying the child's progress in each aspect of the subject, determining what each child has learned and what should be the next stage in his/her learning. Formative assessment is mostly carried out by teachers in the course of their teaching and supported by the use of individual target books.

Key Stage 2 SATs results are reported to parents, LA and DFE as required by law. Pupil progress in Mathematics and any interventions required, are discussed at termly pupil progress meetings. Staff hold termly parents' meetings and write termly reports indicating pupils' progress and achievement judged against national expectations. Summative records, such as National Curriculum levels, NFER test results, target books and target record sheets are completed along with records of achievement in other subjects to provide an overall picture of the child.

Suitable tasks for assessment include:

- small group discussions in the context of a practical task;
- short tests in which questions are given orally;
- specific assignments for individual pupils;
- diagnostic assessments to provide detailed feedback about children's difficulties in specific areas;
- investigational tasks to assess problem-solving skills;
- individual discussions in which children are encouraged to appraise their own work and progress;
- half-termly oral and written assessment tests which can be used to monitor individual children's progress and identify strengths, weaknesses, errors and misconceptions;
- NFER end of year tests which can be used to indicate National Curriculum levels.
- Questions from previous SATs papers.

Reporting in mathematics will focus on each child's attitudes to mathematics, competence in basic skills and ability to apply mathematical knowledge to new situations.

The Role of the Mathematics Subject Leader

- To purchase, organise and maintain teaching resources, managing a delegated budget and keep spending levels within it.
- To encourage and assist in-service training.
- To keep up to date by attending courses and feedback sessions organised by LA, cluster groups or other colleagues.
- To monitor and evaluate standards of teaching and learning within the school and advise the Headteacher of action required.
- To provide guidance and support in implementing new curriculum initiatives.
- To offer specialist advice for special needs and gifted pupils.
- After consultation, to co-ordinate planning, assessment, recording and presentation throughout the school.

The over-riding task must be to provide support for all who teach mathematics and so improve the quality and continuity of mathematics teaching and learning throughout the school.

Written by A Sheikh May 2017