Mathematics Subject Policy

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1. Vision and values – rooted and grounded in love

Our school vision is based on the writings of Paul to the Ephesians. This highlights three principles which form our decision making. We seek for all people in our school community to:

- Feel grounded and rooted in love
- To grow in breadth and depth of understanding
- To be filled with the fullness of life

Our school has adopted seven values and seven attributes which form the basis of the work we do, particularly in relation to our curriculum. It is these values and attributes that all of our subjects focus on instilling in our pupils.

Values: courage, compassion, thankfulness, forgiveness, wisdom, justice, truthfulness
Attributes: knowledge, perseverance, collaboration, curiosity, comprehension, reasoning, creativity

2. Intent

The National Curriculum for maths aims to ensure that all children:

- Become fluent in the fundamentals of mathematics
- Are able to reason mathematically
- Can solve problems by applying their mathematics

At Abberley, these skills are embedded within maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of maths in the wider world and that they are able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy mathematics and to experience success in the subject, with the ability to reason mathematically. We are committed to developing children's curiosity about the subject, as well as an appreciation of the beauty and power of mathematics.

3. Implementation

Our skills progression shows how our expectations and teaching of associated skills develop during the course of study at Abberley Parochial Primary School. Click the link below to see this:

https://www.abberley.worcs.sch.uk/attachments/download.asp?file=172&type=pdf

We follow the national curriculum:

https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study/national-curriculum-in-england-mathematics-programmes-of-study

Teaching and learning in maths is coordinated in line with the objectives of the National Curriculum alongside long term plans from White Rose to ensure that the children are secure in Fluency, Reasoning and Problem Solving. Lessons are taught explicitly and discreetly, whilst seeking opportunities to make links between aspects and themes of learning.

The school uses a variety of teaching and learning styles in mathematics lessons. Our principal aim is to develop children's knowledge, skills and understanding in maths. We do this through a daily lesson that has a high proportion of whole-class and group-direct teaching. During these lessons we encourage children to ask as well as answer mathematical questions. They have the opportunity to use a wide range of resources such as number lines, number squares, digit cards and small apparatus to support their work.

Children use ICT in mathematics lessons where it will enhance their learning, as in modelling ideas and methods. Wherever possible, we encourage the children to use and apply their learning in everyday situations. We ask the children to explain which strategy they used to achieve their answer, emphasising that there can be many different ways to solve a problem.

In all classes there are children of differing mathematical ability. 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 – in some lessons through differentiated group work and in other lessons by organising the children to work in pairs on open-ended problems or games. We use classroom assistants to support some children and to ensure that work is matched to the needs of individuals.

Allocation

EYFS	2 hours 30 minutes a week
Year 1	5 hours 40 minutes a week
Year 2	5 hours 40 minutes a week
Year 3	5 hours 40 minutes a week
Year 4	5 hours 40 minutes a week
Year 5	5 hours 40 minutes a week
Year 6	5 hours 40 minutes a week

4. Impact (including monitoring of standards)

Termly book reviews and learning walks ensure that our curriculum is being covered and that the standard of learning enables all pupils to progress, access the learning and be challenged in their thinking.

Pupils' progress in maths is monitored through our school tracking system based on teacher assessments against our curriculum content and skills progression and analysis of this is included in our termly pupil progress meetings which may lead to intervention strategies of a varied classroom practice being adopted to support those pupils.

5. Curriculum overview/Planning

https://www.abberley.worcs.sch.uk/attachments/download.asp?file=172&type=pdf

We follow the national curriculum:

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6. Subject progression

Maths is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are organised into progressive key strands, but pupils should also be encouraged to make connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects.

7. Assessment/inclusion and challenge

The children's work in maths is assessed daily by their maths teacher through careful observation and questioning during each lesson and the marking of recorded work. Children should receive clear feedback linked to their learning in exercise books. Marking should be in line with the school's feedback policy. Teachers record the progress made by the children against the learning objectives for that particular lesson.

Maths skills, both key calculation skills and the recall of facts (and their application), are assessed weekly during the Big Maths lesson. These assessments are progressive and the children move on to the next 'level' once they have shown a secure understanding of those concepts covered in their current 'level'. The findings from these assessments help to inform teachers of each pupil's current understanding and any misconceptions. They are then able to plan for the next steps in their learning. Teachers are able to track progress using the results from the Big Maths assessments and provide the necessary pupil support. Maths targets are identified and shared with the pupils.

Pupils are also assessed at the end of each term across all the strands using the appropriate HeadStart assessment for each year group. This too is used as tool for tracking progress, reporting and informing planning.

Pupils are formally assessed at the end of Key Stage 1 and Key Stage 2, taking the National Curriculum Tests. At Key Stage 1 the results of these tests are used to help the teacher make an informed judgement about the attainment of individual pupils in maths. At Key Stage 2 the results of these tests are used to evaluate the progress of individual pupils. They make comparisons between children against the average attainment expectations for their respective age group.

More able mathematicians are challenged to develop their higher order thinking skills through investigative work, using searching and engaging questions. Their knowledge and understanding is broadened through the use of reasoning and problem solving.

8. Cross curricular and IT links

Opportunities should be made wherever possible to apply important maths skills.
Reading scales in science.
Calculating results in science.
Representing, using and interpreting data in science.
Recognition of shapes and their properties in art.
Ratio and proportion in Art.
Scaling up and down in DT and Art.

Purposeful apps and IT software can also be used to achieve the desired learning outcome.

9. Roles and expectations of staff

SLT:

- Support the subject coordinator in the coordination of mathematics.
- Monitor the coordination of mathematics across the school.

Subject coordinator:

- Support colleagues in the teaching of mathematics.
- Remain informed about current developments in the subject.
- Provide a strategic lead and direction for the subject in the school.

Class teachers:

- Deliver mathematics curriculum to each class/set using a variety of stimulating teaching methods and resources and effective differentiation.
- Assess pupils' achievement of lesson objectives, acquisition of maths skills and their ability to apply their knowledge and report progress to parents.
- Mark pupils' written work regularly and provide appropriate feedback relating to their achievement of the learning objective.
- Provide pupils with opportunities for peer and self-assessment of their work.
- To build a sense of enjoyment and curiosity about the subject.
- To ensure every pupil makes a minimum of good progress.

Teaching assistants:

- Support subject teachers as detailed in planning.

10. Subject Development

September	Carry out subject development planning and share planning with English teachers throughout the school. Submit subject development plan to the head teacher. Consider the needs of new staff joining the school.
January	Review work scrutiny carried out in the Autumn term. Provide feedback to staff in the maths curriculum meeting. Feedback on the December assessments. Share feedback and discuss priorities. Consider staff development needs.
March	Review assessment data and Subject development plan objectives.
May/June	Review subject development planning and subject policy.

Mathematics coordinator: Jo Gregory
Maths governor: Jamie Pratt
Headteacher: Joel Turvey