

INTRODUCTION AND SUBJECT DEFINITION

At High Ercall Primary School, we believe that mathematics is a tool for everyday life. It is a 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.

Through the mathematics curriculum, we will help children develop skills and knowledge. Learning will be embedded through contextual experiences and problem solving activities that facilitate mathematical fluency.

AIMS

Using the National Curriculum 2014 for teaching mathematics it is our aim to develop:

- a positive attitude towards mathematics and an awareness of the fascination of mathematics
- competence and mathematical fluency in 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 in real life
- an understanding of mathematics through a process of enquiry and experiment

Our overall aims are to set appropriately high expectations for all children; to encourage children to be confident and enjoy mathematics; and to meet the needs of all children with appropriately differentiated but challenging activities so ensuring good progress.

Our policy for teaching calculation reflects the national guidance. We systematically teach mental calculation to all year groups and introduce informal then standard written methods that build on mental calculation methods.

CURRICULUM ORGANISATION

The new National Curriculum 2014 forms the basis of teaching and learning. All children receive at least the minimum entitlement of a daily mathematics lesson.

As a guide, the strands of the Programmes of Study for each year group will be delivered following the guidance from the local education authority termly plans. These suggest how many weeks each strand could be taught during a term. However, the time allocation may vary slightly between each class depending upon the needs of a particular cohort.

Teachers work towards independent learning and plan for different working groups. Teachers employ a range of generic teaching strategies.

Mathematics at this school is based on the Programmes of Study from the National Curriculum 2014.

The teaching will cover the following strands:

Number and place value

Addition and Subtraction

Multiplication and Division

Measurement

Fractions

Geometry

Statistics

Within each POS pupils are provided opportunities to consolidate and deepen their knowledge through problem solving and reasoning activities.

Clear objectives are set for each session and are shared with pupils. Teachers differentiate according to the needs of the pupils and use intervention programmes for targeted support.

Mathematics is encouraged and developed across our curriculum and links are made where appropriate.

ICT is used where it enhances, extends and complements mathematical teaching and learning.

Additional adults are used to support the teaching of mathematics. They work under the guidance of the teacher with small groups of children or individuals.

CONTINUITY AND PROGRESSION

By following the Programmes of Study, this ensures continuity in the planning and delivery of mathematics for each year. The strands for mathematics follow the same areas but with the number of learning objectives and expectations increasing as the years progress. This facilitates easy transition from KS1 to KS2.

The National Curriculum 2014 states age related expectations in each area of study. Using this as a basis, teachers can ensure that the work is pitched appropriately and assess whether a pupil is achieving age related expectations. Progression and coverage can quickly be identified and shared with all stakeholders.

TIME ALLOCATION

The following times show the general pattern of teaching, though times will be flexible each week.

Mathematics – 1 hour each day as a specific subject but it may also be taught through cross curricular opportunities as they arise.

TEACHING AND LEARNING STRATEGIES

The teaching of mathematics provides opportunities for:

group work

paired work

whole class teaching

individual work

Pupils engage in:

the development of mental strategies

written methods

practical work

investigational work

problem solving

mathematical discussion
consolidation of basic skills and number facts

At High Ercall Primary School we recognise the importance of establishing a secure foundation in mental calculation and recall of number facts alongside standard written methods as outlined in the school's Written Calculation Policy. We model the correct mathematical vocabulary and children are expected to use it in their verbal and written explanations.

RESOURCES

Presently, the main teaching resources for Mathematics are stored in a cupboard in Class 4. All classes have their own supply of 'every day' resources e.g. 100 squares etc. Resources have been catalogued and this is accessible in the Numeracy folder on the staff workgroup.

ICT

This includes the use of calculators, audio-visual aids and computer programs. Various ICT resources will support the teaching of mathematics and these will be taken from various sites and the Telford and Wrekin intranet. Interactive white boards are in every class, with Active Primary software in KS2.

CONTRIBUTION TO OTHER AREAS OF THE CURRICULUM

Mathematics contributes to many subjects, and it is important the children are given opportunities to apply and use their skills in real contexts. Where possible, we encourage staff to make cross curricular links in order to provide meaning and context to the teaching. This will allow the children to gain an understanding of how mathematics fits in to everyday life and make connections with the real world.

We endeavour, at all times, to set work that is challenging, motivating and encourages the pupils to talk about what they have been doing.

COMMUNITY LINKS

Whenever appropriate, links within the local community will be made to ensure a relevant and exciting context for learning within mathematics. This might include using the school grounds, or further afield within the local community.

As opportunities arise, the children will take part in mathematical related activities with other schools, through the Beacon Trust, or the local School Development Group. This will enable our children to work with others from different schools and other backgrounds, and will develop their social and cultural awareness as well as furthering their mathematical abilities.

EQUAL OPPORTUNITIES AND INCLUSION

We incorporate mathematics into a wide range of cross curricular subjects and seek to take advantage of multicultural aspects of mathematics.

All children have equal access to the curriculum regardless of race, social circumstance or gender. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

We provide an inclusive mathematics curriculum, which ensures effective learning opportunities for all children. Teachers ensure that different learning styles are acknowledged and supported in order to meet the needs of individuals. For pupils who require extra support, or have gaps in their learning, carefully planned and delivered intervention is provided. This may be in the form of individual or small groups conducted either inside or outside of the classroom. The senior leadership team have regular intervention progress meetings to monitor the impact of targeted intervention.

ASSESSMENT, RECORDING AND REPORTING

Assessment for Learning (AFL) is regarded as an essential part of teaching and learning and is a continuous process which is shared with all learners. All class teachers are committed to raising standards of attainment through AFL and are responsible for the assessment of all pupils in their class.

At High Ercall Primary School, we are continually assessing pupils' progress. We see assessment as an integral part of the teaching process and strive to make our assessment purposeful, allowing us to match the correct level of work to the needs of the pupils, thus benefiting the pupils and ensuring confidence and progress.

SUMMATIVE ASSESSMENT

Summative testing takes a snapshot of learning which establishes what a child can do at a given time.

These strategies are used in school:

- **Statutory Assessments** – pupils are assessed at the end of Key Stage 1 and Key Stage 2 through national tests. These provide a summative end of key stage attainment result, and can be compared to national outcomes. Pupils in Reception are assessed on entry using the NFER baseline test. This is new this year. They will also be assessed throughout the year using the guidance material in Development Matters in the Early Years Foundation Stage. At the end of the year a summative assessment is made on each of the 17 strands.
- **Non-statutory tests** – commercially produced tests (NFER, PUMA,) are administered voluntarily in school each term to evaluate attainment against year group expectations in the national curriculum.
- **Termly teacher assessments** – progress and attainment are measured termly against the year group expectations. Evidence in pupils' books is used to support judgements.
- **End of year teacher assessments** – teacher assessment is made in all year groups through to Year 6. Non – statutory tests are used to inform teacher assessments.

Tracking and recording attainment and progress

Foundation Stage Nursery

- **Term 1**

Information prior to starting nursery via: home visit, information from parents, information from other private providers, visits to nursery prior to starting nursery.

Foundation stage profile completed as a baseline assessment within first few weeks of starting.

Foundation profile updated half termly using evidence from Learning Journeys and teacher assessment

End of Autumn term – teacher assessment updated on O track

Early Years Manager to review attainment and progress across Foundation Stage

Identify children at risk of under achieving to target for Term 2

Progress and attainment data shared with Governing Body

Parent conversation meeting to share progress, attainment and targets

- **Term 2 / 3**

Maintain Foundation Profile through teacher assessment and evidence in Learning Journey.

End of term – teacher assessment updated on O track

Early Years Manager to review attainment and progress across Foundation Stage

Identify children at risk of under achieving to target for next term

Progress and attainment data shared with Governing Body

Parent conversation meeting to share progress, attainment and targets

- **End of Term 3**

Annual Report to parents

Parent Open evening

Early Years Manager to review attainment and progress across Foundation Stage for the year

Progress and attainment data shared with Governing Body

Foundation Stage - Reception

- **Term 1**

Information prior to starting school via:

Entry profile information from High Erccall Nursery, information from other private providers, parental consultations in week 1

Baseline completed – NFER in the first 4 weeks – literacy and numeracy only

Foundation stage profile completed by half term

End of Term 1 – use foundation profile to review progress. Data entered onto O track. Early Years leader reviews progress and attainment across the Foundation stage

Progress and attainment data shared with Governing Body

- **Term 2 / 3**

Maintain Foundation Profile through teacher assessment and evidence in Learning Journey.

End of term – teacher assessment updated on O track

Early Years Manager to review attainment and progress across Foundation Stage

Identify children at risk of under achieving to target for next term

Progress and attainment data shared with Governing Body

At half term, Term 2 - Parent conversation meeting to share progress, attainment and targets

- **End of Term 3**

Annual Report to parents

Parent open evening

Early Years Manager to review attainment and progress across Foundation Stage for the year

Years 1,2,3,4,5,6

- **Terms 1,2,3**

Pupils assessed against year group expectations in National Curriculum 2014.

Pupil target sheets completed for maths at the front of the books.

Teaching staff will date pupil target sheets when pupils have shown:

What they **know** about the target

What they **can do**

Teaching staff will highlight the target when the pupils have shown:

What they **understand** the target

End of each term – pupil targets sheets used to inform teacher assessments

PUMA summative tests completed

Teacher assessment, using summative tests, entered into O track

Subject coordinator to review attainment and progress of cohort, vulnerable groups, and individual pupils

Identify children at risk of under achieving to target for next term

Pupil Progress meetings held at the end of each half term – intervention reviewed and adapted to needs of pupils

Progress and attainment data shared with Governing Body

At half term in Terms 1 and 2: Parent conversation meeting to share progress, attainment and targets

- **End of Term 3**

Annual report to parents

Parent Open Evening

Year 1 (in addition to above)

- Term 1 – some pupils may continue with FSP, others will be assessed against the year group expectations.

Years 2 and 6 (in addition to above)

- Term 3 – SAT tests and tasks administered as per statutory administration
SAT results shared with parents as part of Annual Report

Pupil Progress Meetings

Pupil progress meetings are designed so that the progress of individuals and groups can be discussed with the SLT and teachers. This enables staff to share approaches to supporting pupils learning, but also ensures accountability for attainment and progress. Following the meeting, staff adapt and amend intervention sheets to show changes to intervention and address concerns about individual pupils or pupils within vulnerable groups. This will include all children in receipt of Pupil Premium, including service children.

Tracking

All staff enter data into O track before the end of the term.

SLT use data entered to run reports to show attainment and progress of each cohort. This is analysed for trends and concerns across school and used to plan the subsequent Termly Development Plan. Within the data analysis there is a focus upon:

- Gender variation in attainment or progress
- Children in receipt of PPG funding
- Children in Care
- Service children
- Children with SEN
- Higher attaining pupils
- Pupils with different Ethnic backgrounds

Due to the small size of some vulnerable groups, it is important to evaluate individual progress, rather than relying on statistical evidence which can be distorted with such small groups.

Transition

On transfer to another school, or at the end of Year 6, records of attainment are shared with the receiving school, as well as further information with regards to interventions and additional provision.

Monitoring, Moderation and Evaluation

Senior managers (Head, Deputy and Early Years Manager) take responsibility to ensure that agreed procedures are put into place across school. Policy and practice will be reviewed with all staff to evaluate the effectiveness and efficiency of assessment arrangements.

Monitoring

Book scrutiny and lesson observations will monitor whether agreed assessment procedures are being consistently applied. At the start of each staff PDM, staff share 2 books which evidence formative assessment procedures in place. This enables good practice to be shared.

Moderation

Moderation takes place in a variety of ways, and ensures that teachers' judgements against the age related objectives in Curriculum 2014 are sound, and agreed.

- In school moderation is part of the Termly Development Plan each term. Staff bring along a sample of work for an agreed subject and judgements are discussed. This can include creating a portfolio of samples of agreed expected standards.
- SDG moderation. In the spring term, there is a subject focus for our group of schools to moderate a specific focus for mathematics. Subject coordinators take a sample of work which is moderated and agreed across the schools. This is led by a Head from the group and an LA advisor. Secondary and Primary schools are involved.
- LA update meetings. Termly mathematics subject leader update meetings are attended by the coordinator.

Evaluation of data

End of term data is scrutinised by SLT. Trends and concerns are evaluated and feed into the Termly Development Plan. This information is shared with Governors through the Head's Report each term. At the end of the year, the mathematics SATs is used by the SLT and Strategic Committee of the Governing Body to evaluate school strengths and areas for development. These will feed into the School Development Plan for the subsequent year.

REVIEW AND MONITORING

The Deputy Head Teacher is currently the Mathematics Coordinator. All monitoring is set out in the School Development Plan and Termly Development Plan. Each term mathematics is monitored through either, book scrutinies, lesson observations, talking to pupils or a combination depending on the focus for that term.

PROFESSIONAL DEVELOPMENT

Teachers are expected to keep up to date with subject knowledge and use current materials that are available in school or online.

Training needs are identified as a result of whole school monitoring and evaluation, performance management and through induction programmes. These will be reflected in the School Development Plan and Termly Development Plan. The mathematics co-ordinator will arrange for relevant advice and information, such as feedback from courses or newsletters, to be disseminated. Where necessary, the mathematics co-ordinator leads or organises school based training.

Additional adults, who are involved with intervention programmes, will receive appropriate training that may be school based or part of central training.

POLICY REVIEW

This policy will be reviewed fully according to the policy review cycle in January 2019, or as deemed necessary through the School Development Plan.

The coordinator will review the accuracy of the policy on an annual basis.