**Maths policy**

Date: 6th June 2017

Subject Leader: Kelly Bladon

Nominated Governors: Mark Kerbey and Kayleigh Daniels

**We believe this policy relates to the following legislation:**

* Skills framework 3-19
* National Curriculum for Wales- revised Areas of Learning and Programmes of Study for Mathematics
* Literacy and Numeracy Framework

The following documentation is also related to:

* CLIC Big Maths Scheme of Work
* Successful Futures

Which states that:

“The purposes of the curriculum in Wales should be that children and young people develop as:

* ambitious, capable learners, ready to learn throughout their lives
* enterprising, creative contributors, ready to play a full part in life and work
* ethical, informed citizens of Wales and the world
* healthy, confident individuals, ready to lead fulfilling lives as valued members of society”

At Oak Field Primary School, we believe that 'a high-quality Mathematical education equips pupils to develop skills, knowledge and understanding of Numeracy, Numerical Reasoning, Algebra, Measuring, Geometry and Data. Learners are given the opportunities to acquire, develop, practice apply skills through individual and group tasks in a variety of contexts across the curriculum.

We have a duty to ensure compliance with the National Curriculum and with the application of the new programmes of study and Literacy and Numeracy Framework. We understand that the National Curriculum provides pupils with an introduction to the core knowledge that they need to be educated citizens.

Our well-balanced curriculum promotes the spiritual, moral, cultural, cultural, mental and physical development of pupils and prepares them for the opportunities, responsibilities and experiences of later life. We will develop pupils' spoken language, reading and writing in all subjects and will develop pupils' mathematical fluency.

We wish to work closely with the School Council and to hear their views and opinions as we acknowledge and support Article 12 of the United Nations Convention on the Rights of the Child that children should be encouraged to form and to express their views.

We as a school community have a commitment to promote equality. Therefore, an equality impact assessment has been undertaken and we believe this policy is in line with the Education Equality Act 2010.

We believe it is essential that this policy clearly identifies and outlines the roles and responsibilities of all those involved in the procedures and arrangements that is connected with this policy.

**Aims**

* To ensure that all pupils use appropriate mathematics, identify and process information in solving problems.
* To ensure that all pupils use a variety of strategies and mathematical facts.
* To ensure there is development of mental and written computation strategies.
* To ensure that all pupils use flexible and effective methods of computation and have the ability to check results and interpret solutions.
* To ensure pupils investigate repeating patterns and relationships.
* To ensure pupils make and investigate mathematical hypotheses, predictions and conjectures
* To ensure that all pupils develop estimation skills and appreciate the continuous nature of measures.
* To ensure that all pupils use correct mathematical vocabulary, notation, symbols and conventions.
* To ensure that all pupils recognize words and patterns that arise in numerical, spatial or practical situations.
* To ensure that all pupils read information from charts, diagrams, graphs and text.
* To share good practice within the school.
* To work with other schools to share good practice in order to improve this policy.

**Roles and Responsibility for the Policy**

**Role of the Governing Body**

**The Governing Body has:**

* appointed a member of staff to be responsible for the curriculum leadership of Mathematics.
* delegated powers and responsibilities to the Headteacher to ensure all school personnel and stakeholders are aware of and comply with this policy;
* responsibility for ensuring compliance with the legal requirements of the National Curriculum;
* responsibility for ensuring that the school complies with all equalities legislation;
* nominated a designated Equalities governor to ensure that appropriate action will be taken to deal with all prejudice related incidents or incidents which are a breach of this policy;
* responsibility for ensuring funding is in place to support this policy;
* responsibility for ensuring this policy and all linked policies are maintained and updated regularly;
* responsibility for ensuring all policies are made available to parents;
* the responsibility of involving the School Council in the development, approval, implementation and review of this policy;
* nominated a link governor to visit the school regularly, to liaise with the Headteacher and the coordinator and to report back to the Governing Body;
* responsibility for the effective implementation, monitoring and evaluation of this policy and other associated school policies and procedures.

**Role of the Headteacher and Senior Leadership Team**

The Headteacher and the Senior Leadership Team will:

* ensure all school personnel are aware of and comply with this policy;
* work closely with the subject leader and the link governor;
* ensure compliance with the legal requirements of the National Curriculum;
* ensure this policy is aligned with other school policies and procedures;
* consider disapplying a pupil from all or part of the National Curriculum for a period of time if this will benefit the child;
* encourage parents to take an active role in curriculum development;
* provide leadership and vision in respect of equality;
* provide guidance, support and training to all staff;
* monitor the effectiveness of this policy by;
* observing teaching and learning
* planning scrutinies and work trawls
* discussions with pupils and members of the school council
* annually report to the Governing Body on the success and development of this policy

**Role of the Subject Leader**

The Subject Leader will:

* lead the development of this policy throughout the school;
* work closely with the Headteacher, the nominated governor and SENCO;
* be accountable for standards in this subject area;
* monitor standards by;
* auditing the subject area
* review of the scheme of work
* monitoring teachers planning
* lesson observations
* scrutinising children's work
* discussions with pupils
* ensure continuity and progression throughout the school;
* devise a subject improvement plan;
* provide guidance and support to all staff;
* provide training for all staff on induction and when the need arises regarding;
* attend appropriate and relevant INSET;
* keep up to date with new developments;
* undertake an annual audit and stock take of resources;
* purchase new resources when required and in preparation for the new academic year;
* manage the subject budget effectively;
* work closely with the Headteacher and other staff to ensure this policy is aligned with all other school policies and procedures;
* undertake risk assessments when required;
* review and monitor;
* annually report to the Governing Body on the success and development of this policy

**Role of the Nominated Governor**

The Nominated Governor will:

* work closely with the Headteacher and the subject leader;
* ensure this policy and other linked policies are up to date;
* ensure that everyone connected with the school is aware of this policy;
* attend training related to this policy;
* annually report to the Governing Body on the success and development of this policy

**Role of Teachers**

Teachers will:

* comply with all aspects of this policy;
* work closely with the subject leader to develop this policy;
* devise medium and short term planning;
* develop mathematical fluency, numeracy and mathematical understanding in all subjects;
* develop pupils' spoken language, reading, writing and vocabulary in all subjects;
* plan and deliver good to outstanding lessons;
* plan differentiated lessons which are interactive, engaging, of a good pace and have a three part structure;
* have high expectations for all children and will provide work that will extend them;
* assess, record and report on the development, progress and attainment of pupils;
* achieve high standards;
* celebrate the success of pupils in lessons
* implement the school’s equalities policy and schemes;
* report and deal with all incidents of discrimination;
* attend appropriate training sessions on equality;
* report any concerns they have on any aspect of the school community

**Role of Pupils**

Pupils will:

* be aware of and comply with this policy;
* be encouraged to work in partnership with the school by making decisions and exercising choice in relation to their educational programme;
* listen carefully to all instructions given by the teacher;
* ask for further help if they do not understand;
* participate fully in all lessons;
* participate in discussions concerning progress and attainment;
* treat others, their work and equipment with respect;
* support the school Code of Conduct and guidance necessary to ensure the smooth running of the school;
* liaise with the school council;
* take part in questionnaires and surveys

**Role of the School Council**

The School Council will be involved in:

* determining this policy with the Governing Body;
* discussing improvements to this policy during the school year;
* organising surveys to gauge the thoughts of all pupils;
* reviewing the effectiveness of this policy with the Governing Body

**Role of Parents/Carers**

Parents/carers will:

* be aware of and comply with this policy;
* be encouraged to take an active role in the life of the school by attending:
* parents and open evenings
* parent-teacher consultations
* curriculum development workshops
* be encouraged to work in school as volunteers;
* be encouraged to respond to curriculum information newsletter;
* be informed via termly newsletters of their child’s topics;
* asked to provide suggestions and ideas for improving this subject;
* be asked to take part periodic surveys conducted by the school on curriculum development;
* be invited to make presentations to pupils on aspects of this subject area;
* encourage effort and achievement;
* encourage completion of homework and return it to school;
* provide the right conditions for homework to take place;
* expect their child to hand in homework on time;
* join the school in celebrating success of their child's learning;

**Teaching and Learning Style**

We use a variety of teaching and learning styles in order to develop children's knowledge, skills and understanding.

**Curriculum Planning and Organisation**

The assessment, recording and reporting to parents on the educational progress of each child is statutory. The relationship between assessment and learning should be a strong and positive one.

The statutory requirements are fulfilled by

* assessment of pupils’ achievements and wide ranging development
* keeping a careful record on each child (Incerts)
* regular tracking of the attainment of every child
* reporting to parents twice a year
* holding statutory assessments in Year 2 and Year 6.
* providing a written report for each child every year

Assessment is made on a continuous basis by staff

**Types of evidence**

**Children’s resources**

* Everyday workbooks
* Multimedia recordings
* Photographs of pupils work

**Teacher resources**

* Teacher’s planning files
* Baseline Assessment
* Tracking Pupil Progress – trackers/ Incerts data
* Assessments are made daily using the assessment strategies of written tests, oral tests, observations, discussion and marking.
* Evidence of achievement in the four core subjects will be collated each term and moderated to provide a National Curriculum Level (Outcomes for Foundation Phase) for tracking purposes
* Evidence of foundation subjects will be collated throughout the year in line with topic work. This will be moderated for tracking purposes once during the academic year.
* Pupil books are the main source of evidence.
* The assessment information in these subjects will be used formatively in planning further work for pupils and as a basis for the annual written report to parents.
* A statement of achievement will be regarded as achieved when the teacher is reasonably sure that the child can repeat that performance on the majority of subsequent occasions. However, the level will only be reported to parents at the end of each key stage.

There is development and consolidation of Mathematical skills through the wider curriculum (LNF)**.** The mathematical applications of skills is shown in the mid term planning across the new Donaldson Areas of Learning and in the LNF section of planning.

**Big Maths**

Big Maths is a teaching method created by Ben Harding that embraces the logical nature of maths, translating it into simple Steps and Progress Drives. This makes progress easy and fun for both children and teachers giving all pupils the opportunity to achieve.

Other strategies approach the teaching of maths in the ‘traditional way’; giving teachers broad curriculum statements with little accurate guidance on how to get pupils there. In Big Maths there is great detail built into the system that allows all teachers to experience high subject knowledge and teacher expertise, therefore getting the chronology of the maths journey right for each child.

Big Maths is a tool we use When we use to teach mathematics to children. We break it down into very small manageable steps, teach each step in isolation, and then put it back together again. We are connecting each step to related surrounding steps as we go and showing the children how to use and apply existing skills and knowledge in new situations as well as developing the reasoning to justify this.

Big Maths begins with a model of numeracy development that provides an innovative and highly effective way of looking at the Primary Mathematics curriculum. It cashes in on the nature of maths, using CLIC as a chronological framework for securing basic skills and on the logical steps of progression that sit naturally in mathematical progression, which we call Progress Drives.

Children acquire the basic skills of Mathematics through the chronology of CLIC. When we look at Core Numeracy in more detail we see that it has a 4 stage process to it:

**Counting**
children learn to count and to ‘count on’.

**Learn Its**
children then short-cut this counting by recalling their ‘counting on’ as facts.

**It’s Nothing New**
children then ‘swap the thing’ to realise that the counting fact, or ‘Learn It’, can be applied to any object, amount or unit of measure.

**Calculation**
the previous 3 phases are combined to provide a calculation structure.

**CLIC** is taught as a whole class 20 minute session starter to maths lessons. Tests are completed weekly and results are tracked and monitored regularly by class teachers and subject leader.

**Short Term Planning**

Teachers write and/or annotate and personalise detailed daily and weekly planning.

**Links with ICT**

The use of information and communication technology will promote, enhance and support the teaching of this subject area.

**Inclusion**

We believe that we are an educationally inclusive school as we are concerned about the teaching and learning, achievements, attitudes and well-being of all our pupils. We aim to provide places for all pupils who express a preference to join this school.

We work hard to offer equality of opportunity and diversity to all groups of pupils within school such as children:

* from both sexes;
* who have Additional Learning Needs;
* who are looked after;
* from minority faiths, ethnicities, travelers, asylum seekers, refugees;
* who are gifted and talented;
* who are at risk of disaffection;
* who are young carers;
* who are sick;
* who have behavioural, emotional and social needs;
* from families who are under stress

We believe we have a duty to ensure that all children have equal rights to the opportunities offered by education and that all children will be encouraged to fulfil their potential in their academic, physical and creative achievements.

We want to give all children the right to access high quality educational experiences, to take part in a broad and balanced curriculum and to be part of the social life of the school.

We recognise that within the school we have more able, gifted and talented children. We believe that:

* more able children demonstrate a higher ability than average for the class and often require differentiated tasks and opportunities to learn through challenges;
* gifted children are those who have the ability to do well in more than one subject;
* talented children demonstrate an innate talent or skill in creative, cultural or sporting fields

We have an even great obligation to plan and deliver well-structured lessons with appropriate assessment plus ambitious targets for pupils who have low levels of prior attainment or come from disadvantaged backgrounds.

Also, we have a duty to cater for pupils whose first language is not English by planning teaching opportunities to help them develop their English and to gain full access to the National Curriculum.

**Differentiation**

Differentiation is best defined as 'the process by which differences between learners are accommodated so that all students in a group have the best possible chance of learning.' (Geoff Petty)

The main purpose of differentiation is to challenge and raise standards of learning by ensuring that curriculum objectives are accessible to all our children despite their backgrounds or abilities. We see differentiation as a form of integration and not exclusion.

Differentiation must reflect the learning objective and can be achieved in a variety of ways either by task, by support or by outcome and should be chosen by fitness for purpose.

We want all children to achieve success, therefore we will ensure they are given differentiated tasks that are matched to their level of attainment so that they can demonstrate successfully what they know, understand and can do.

The main feature of effective differentiation is good planning resulting in effective teaching and learning with children making good progress. Also we expect to see in all classes interested well motivated children responding to challenges, children working productively on task and being aware of their own progression.

**Additional Learning Needs**

We want pupils with identified special educational needs to have full access to all subjects of the National Curriculum with teachers planning lessons that have no barriers to pupils achieving and with appropriate targets relating to the subject.

**Assessment for Learning**

Teachers will:

* carry out continuous assessment;
* use short-term assessments matched to the teaching objectives to adjust their planning;
* make comments in pupil's books related to the teaching objective;
* give verbal feedback to pupils related to the what went well and their next steps;
* carry out medium-term assessments to measure progress against key objectives to adjust planning;
* carry out long-term assessment to assess progress against school and national targets;
* use long-term assessments to help them plan for the next academic year;
* inform parents and carers of their child's progress and targets

**Monitoring & Review of the Subject**

Monitoring of standards of children's work and the quality of teaching is the responsibility of the subject coordinator supported by the Headteacher and the SLT.

Standards will be monitored by:

* looking at pupils work
* subject observations
* pupil discussions
* audit of subjects
* scrutiny of planning
* general curriculum discussions

**Contribution of the Subject to other Areas of the Curriculum**

Mathematics is linked to Literacy, Language and Communication, Science and Technology , Expressive Arts, Health and Well Being and Humanities.

**Resources**

The school has a full range of resources to support the teaching of this subject throughout all year groups. Resources are upgraded and replenished when the need arises. An annual stock take and audit is undertaken by the subject coordinator in the summer term in preparation for the next academic year.

**Raising Awareness of this Policy**

We will raise awareness of this policy via:

* the School Handbook/Prospectus
* the school website
* meetings with parents such as introductory, transition, parent-teacher consultations and periodic curriculum workshops
* school events
* meetings with school personnel
* communications with home such as weekly newsletters and of end of half term newsletters
* reports such annual report to parents and Headteacher reports to the Governing Body
* information displays around school

**Training**

All school personnel:

* have equal chances of training, career development and promotion
* receive training on this policy on induction which specifically covers:
* National Curriculum programmes of study and attainment targets for all subjects
* teaching and learning
* planning
* assessment
* key skills
* receive periodic training so that they are kept up to date with new information
* receive equal opportunities training on induction

**Equality Impact Assessment**

Under the Equality Act 2010 we have a duty not to discriminate against people on the basis of their age, disability, gender, gender identity, pregnancy or maternity, race, religion or belief and sexual orientation.

This policy has been equality impact assessed and we believe that it is in line with the Equality Act 2010 as it is fair, it does not prioritise or disadvantage any pupil and it helps to promote equality at this school. (See Initial Equality Impact Assessment)

**Monitoring the Effectiveness of the Policy**

The practical application of this policy will be reviewed annually or when the need arises by the coordinator, the Headteacher and the nominated governor.

A statement of the policy's effectiveness and the necessary recommendations for improvement will be presented to the Governing Body for further discussion and endorsement. (See Policy Evaluation)

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| **Headteacher:** | Ian Williams  | **Date:** | 6/6/17 |
| **Chair of Governing Body:** | Carol Maher  | **Date:** | 6/6/17 |