

Castleton&Glaisdale Primary School

Mathematics and Numeracy Policy June 2015

Aims

Mathematics helps children to make sense of the world around them through developing their ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives.

We aim to:

- Develop a positive attitude to maths as an interesting and attractive subject in which all children gain some success and pleasure.
- Develop mathematical understanding through systematic direct teaching of appropriate learning objectives.
- Encourage the effective use of maths as a tool in a wide range of activities within school and subsequently, adult life.
- Develop ability in the children to express themselves fluently, to talk about the subject with assurance, using correct mathematical language and vocabulary.
- Develop an appreciation of relationships within maths.
- Develop ability to think clearly and logically.
- Develop an appreciation of creative aspects of maths and awareness of its aesthetic appeal.
- Develop mathematical skills and knowledge and quick recall of basic facts in line with NNS recommendations.

The head teacher's responsibility will be to:

- Set high expectations and monitor teaching and progress through regular formative and summative assessment and clear target setting
- Encourage a whole school approach, keeping parents, governors and all support staff well informed e.g. use of the Calculations Policy is consistent.
- Support individual teachers
- Ensure the high profile of maths through the performance management process

Governors' role is to:

- Be well informed through the leadership of the headteacher and numeracy governor
- Support the staff in implementing the school's policy for mathematics
- Monitor and review progress in mathematics.
- Ensure funds are available for training
- Ensure that parents are kept informed about recent developments in maths teaching and current best practice

The subject leader's responsibility is to:

- Lead by example showing a thorough understanding of the subject

- Offer support to teachers in planning, teaching and assessment
- Monitor and evaluate teaching and progress
- Identify inset needs, plan and deliver inset
- Promote use of the Calculations Policy and ARE for planning and assessment

Teachers' responsibility is to:

- Implement the mathematics lesson sharing clear learning objectives with the children, this include ARE
- Use a range of teaching styles to incorporate
 - direct teaching
 - whole class oral/mental sessions
 - group/paired work
 - individual work
 - learning by heart
 - VAK approach
- Use the framework of objectives to aid planning.
- Consistent use of the calculations policy.
- Give homework activities in line with the school policy.

In mathematics lessons teachers:

- Ensure Calculations Policy is consistently applied.
- Ensure children know their ARE
- Share clear learning objectives with the children
- Provide daily practice of mental skills including counting, rapid recall, newly learned facts and calculation strategies
- Maintain good pace and use effective questioning
- Use accurate mathematical vocabulary
- Engage pupils in challenging differentiated activities using a range of resources, including ICT as outlined in the framework
- Use published numeracy materials to support their teaching including Schofield and SIMs, abacus, Numicon, Mathbase and the numeracy strategy.

Special needs

- Children with special needs, including high achievers, will be assigned tasks appropriate to their ability. Lower ability children will be encouraged to participate in whole class activities where possible. Groups can contain children from mixed key stages and mixed year groups. Mental maths sessions, using Schofield and SIMs books, take place daily. Once a week members of staff teach small groups of children in order to mark the work and revise any concepts that the children found difficult to understand. There are six levels of ability and six different groups being taught. Teaching assistants provide ongoing support to individuals or to groups of pupils and are involved in the planning and delivery of the mathematics curriculum.
- Teachers will use the detailed objective in the framework when preparing individual education plans as well as consulting with the SENCO and learning support staff when appropriate.

Points to help pupils to gain confidence

- All pupils have own number line/number square to refer to when doing any form of number work and insist children use it until they are confident enough to stop using it for themselves (which they will in time apart from SEN/under achievers).
- Lower achieving children should be allowed to use number squares/number lines and any other equipment usually used in lessons even in formal tests as it will give them confidence and success. (make a note on tests if children have used one. It is really testing if the children know the mathematical strategy – the number square gives accuracy and not strategy).
- There should be wall displays showing different skills and reminders to help children to work independently especially in mental maths so they can achieve success. These can be interactive displays which can be changed according to which area of maths you are studying at the time, or they could be showing examples of the key objectives which, again, can be referred to on a regular basis, to improve mathematical skills.
- Maths key objectives should still be referred on the same frequency and be made as visible as the magic sentences are in literacy.
- Children should be practising frequently through the lessons, given time limits to do certain things, so they are constantly thinking about the strategies taught.
- Children should have a firm grasp of things like place value, number bonds to 10/20, four rules of number, number sequencing, counting on/back in 1/10 and times tables. These should be revised constantly with under achieving children and SEN children so that they can access it without thinking about it. This can be done by support staff giving a few weeks at a time intensive work on weak areas using specific support programmes/targets.

Foundation stage

Work undertaken within the foundation stage is guided by the requirements and recommendations set out in the early years foundation stage document. We give all the children ample opportunity to develop their understanding of mathematics. We aim to do this through varied activities that allow them to use, enjoy, explore, practise and talk confidently about mathematics.

Children will be encouraged to:

- Enjoy mathematics and see its relevance in real life
- Understand exactly what is expected of them on a day-to-day basis
- Use mathematical vocabulary with confidence
- Use their knowledge to solve problems, see patterns, make predictions, present information clearly, interpret data
- Give oral explanations of their methods

Support staff's responsibility is to:

- Promote consistent use of calculations policy
- Recognise, understand and use ARE to plan and assess progress
- Join in staff training for mathematics where appropriate

- Have a clear understanding of their role in each part of the lesson
- Share the learning objectives for each lesson and know the key vocabulary to be developed
- Use the framework to 'track back' where necessary

Parents will:

- Be encouraged to develop positive attitudes to mathematics and actively support their children when homework is given
- Be well informed of their children's progress through parents' evenings and discussions with staff

Monitoring and review

Monitoring of the standards of children's work and of quality of teaching in mathematics is the responsibility of the headteacher and link governor supported by teaching staff.

The headteacher monitors children's work and results in both key stages and monitors the teaching of the subject. A named member of the governing body comes into school to observe mathematics being taught throughout the school and reports back to the governing body.

Review June 2018