



Bonnyrigg Primary School

Maths and Numeracy policy

March 2017

'To face the challenges of the 21st Century, each person needs to have confidence in using mathematical skills, and Scotland needs both specialist mathematicians and a highly numerate population.'
(Building the Curriculum 1)

Maths and Numeracy Vision Statement

Learners at Bonnyrigg Primary School study Maths and Numeracy to develop skills for learning, life and work. They should value Maths and Numeracy and have an awareness of its importance and relevance to their daily lives. This will enable them to become functioning adults who are able to think mathematically enabling them to reason and problem-solve in a variety of contexts.

At Bonnyrigg Primary School, our staff teach engaging Maths and Numeracy lessons that involve a carefully planned blend of Learning and Teaching approaches, which direct the children's learning. Staff provide progressive, broad, coherent and meaningful learning experiences that are relevant, challenging and enjoyable. Expectations of all learners are high and we aim for progress to be made by all children. Confidence is built in our learners by applying their Maths and Numeracy learning in real life and different contexts. Staff regularly ask pupils to explain, justify or prove their thinking, talking through the strategies they have used to solve particular problems.

Bonnyrigg Primary School aims to ensure that all Curriculum for Excellence Numeracy and Mathematics Experiences and Outcomes, relevant to the age and stage of our learners, are fully addressed.

DRAFT

Aims of teaching Maths and Numeracy

We aim to create a rich and stimulating environment providing experiences to engage learners of all ages, interests and abilities. Each classroom will have a minimum of a large hundred square displayed prominently. Infant classrooms will have also have a number line displayed. Wherever possible we will use cross- curricular links and contextual opportunities.

Maths and Numeracy are tools for everyday life, allowing us to make sense of the world around us and become:

- Successful learners
- Confident individuals
- Responsible citizens
- Effective contributors

Links to Curriculum for Excellence

Maths and Numeracy experiences will provide opportunities to develop the seven principles of CfE:

- Challenges and enjoyment
- Breadth
- Progression
- Depth
- Personalisation and choice
- Coherence
- Relevance

Learning and Teaching

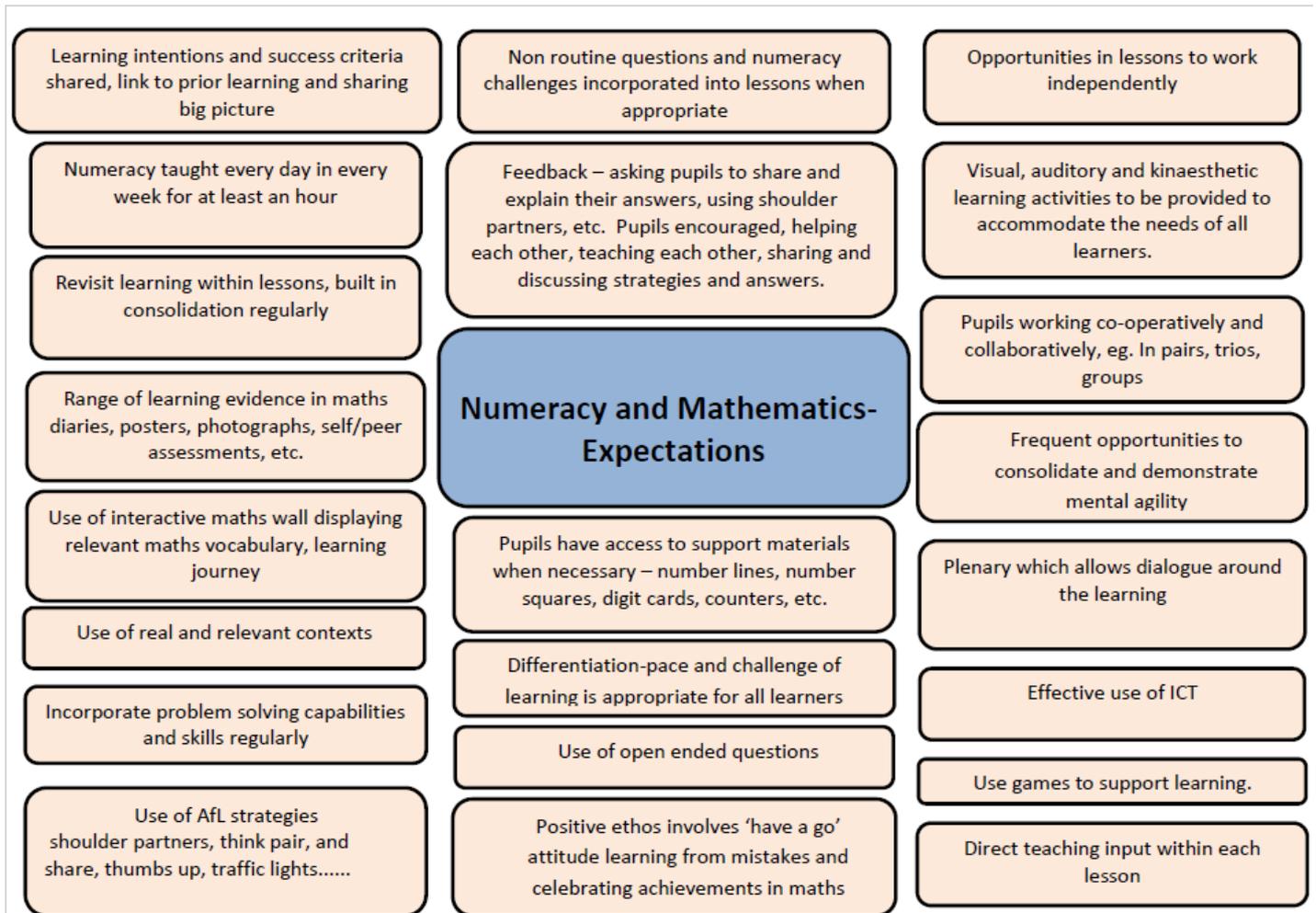
The Maths and Numeracy outcomes are designed to stimulate children's interest and promote creativity and innovation. We aim to deliver carefully planned, well-paced learning and teaching activities using a mix of approaches including:

- Planned active learning with opportunities to observe, explore, investigate, experiment and play
- Development of problem-solving strategies (See Appendix 1)
- Development of mathematical thinking skills
- Use of relevant contexts, indoors and outdoors, familiar to young people's experiences
- Appropriate, effective use of technology
- Building on the principles of Assessment is for Learning
- Collaborative and independent learning
- Making links across the curriculum through thematic work
- Sharing their understanding and explanation of thinking through discussion

Structure of Lessons

1. Recap on previous knowledge
2. Share Learning Intention and Success Criteria
3. Teaching/Learning Experience/Activity or activities
4. Plenary/Assessment

Midlothian's Numeracy and Mathematics GLOW group has produced the table below with advice on classroom expectations.



Planning

Within the curriculum, some outcomes have been identified as Numeracy and some are specifically Maths.

Planning Maths and Numeracy

- Year Plans should show some elements of Maths being taught in a context. Some will be taught as discrete subjects.
- Staff will use Midlothian Understanding Mathematics Programme (MUMP) planners to plan Maths and Numeracy. Staff may use other planners if appropriate eg. SEAL.
- Staff should record which areas are to be covered by highlighting in the appropriate stage colour and then dating when experienced.
- Topics will be revisited regularly.
- Numeracy will be taught every week, and timetables should show Maths and Numeracy sessions at least 4 times a week.

Presentation

The school will:

- Use squared Maths jotters (P3-7)
- Follow the school presentation policy (See appendix 2)

Assessment

- Teachers will use their professional judgement to assess children, in both formative and summative ways. National Tests will be confirmed in Session 2017/2018.
- MUMP assessments will be used, where appropriate.
- SEAL (Stages of Early Arithmetical Learning) diagnostic assessments may be used, if necessary.
- Classes will be given the appropriate evaluation exercise at the end of the session to identify areas of need.
- Curriculum for Excellence Levels will be assessed using the Benchmarks as set out by Education Scotland. These will show when children have achieved a level.

Tracking and Monitoring

- Teachers will use their own tracking formats to record results of assessments to track pupil progress, ensuring pace and challenge.
- The school uses a tracking format to record results of formal evaluations in March to collate and track pupil progress, ensuring pace and challenge. There is a copy of this in the planning folder.
- Maths and Numeracy will be moderated across the school at least twice a year.

Meeting Learners Needs

A variety of strategies are used to ensure that all children's needs are met and they leave Bonnyrigg Primary as confident mathematicians. SEAL (Stages of Early Arithmetical Learning) strategies are used throughout the school to consolidate basic number knowledge and The Power of Two Number scheme is used in the Upper School to support children who require further consolidation in their number skills. The Basic Facts programme can be used, to ensure children are confident in mental calculations. There are opportunities for children to be challenged in a variety of ways within their Numeracy and Maths lessons. Primary Seven staff will liaise with the High School to further challenge high achieving children.

Resources

At Bonnyrigg Primary School we are very lucky to have a wide range of Numeracy and Maths resources. Every classroom is equipped with a Numeracy box, appropriate to their level. This box remains in the classroom and has a list of resources on the lid. If any of these resources need replacing, please speak to a member of SLT. The Numeracy box should be accessible to the children, encouraging independence. It includes resources such as counters, number fans, dice, digit cards, dominoes etc. Every class should have a large Hundred Square displayed on the wall. There is also a wide range of equipment stored in the resource cupboard next to the Staffroom.

Staff must use MUMP planners, but can choose to teach their lessons from a range of resources such as:

- Heinemann
- Teejay
- SEAL
- Basic Facts
- Badger Maths
- Brain Busters
- iPads/SmartBoard
- Outdoor Learning

Marking

A number of Assessment is for Learning strategies should be used, including peer and self-marking.

Home Learning

Maths/Numeracy Home Learning should be given as appropriate to each stage. This may be a practical task instead of/as well as written work. (Please refer to Home Learning Policy for further information)

Parental Involvement

Parents are issued with an information booklet, which provides detail of presentation, processes and **has an overview of Maths and Numeracy.**

Staff will provide meaningful Maths and Numeracy key strengths and next steps for each child at Parent Consultations and when reporting.

Transfer of Information

P7 teachers will pass on the following information to the next teacher:

- Group names with levels e.g. achieved second level.
- MUMP overview per group which has been highlighted and dated

Appendix 1

1. Problem Solving Strategies

Appendix 2

2. School Presentation Policy

Appendix 3

3. **Mathematical language**/parent information leaflet

DRAFT