



Beaconside Primary and Nursery School

Maths Curriculum Design Statement: Intent, Implementation, Impact.

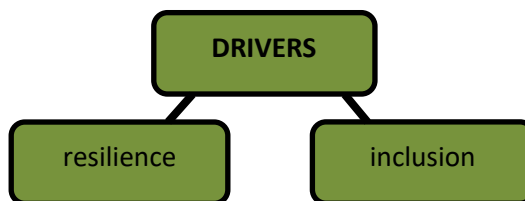
Intent

The breadth of our curriculum is designed with three goals in mind:

- to give pupils **appropriate experiences** to develop as confident, responsible citizens;
- to increase the **confidence** of children working mathematically and allow them to develop a **passion** for maths.
- to provide a coherent, structured, academic **curriculum** that leads to increased fluency, a sustained mastery for all and a greater depth of understanding for those who are capable.

Appropriate Experiences

We have developed two curriculum drivers, to complement our five learning values, that shape our curriculum, support the ethos and culture of our school, and to respond to the particular needs of our community.



Confidence and Passion

We have developed our curriculum so that it allows our pupils to communicate with each other mathematically, developing their knowledge of the subject and the skills required, whilst increasing confidence to apply their learning. They are provided with a range of activities and opportunities (both written and practical) so that they are able to gain a deeper understanding of concepts.

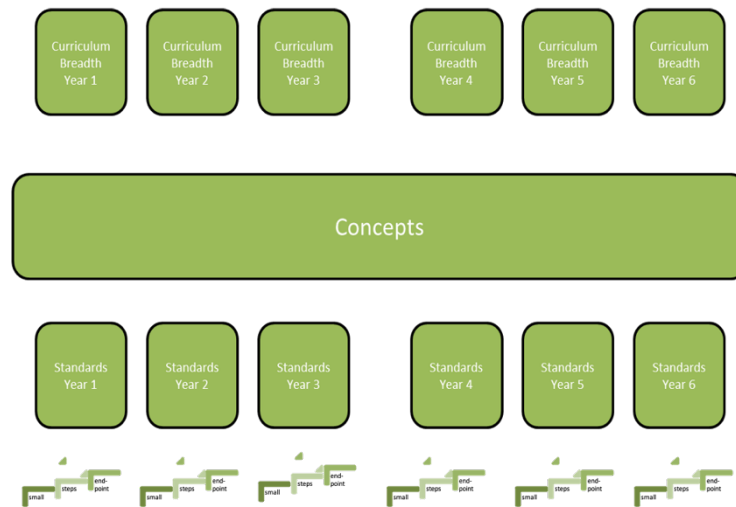
Curriculum

Our coherently structured academic curriculum, underpinned by our learning values and drivers, sets out:

- a clear overview of the breadth of topics that will be covered
- the 'concepts' pupils should understand
- criteria for progression within the concepts (standards)
- the 'small steps' towards mastering the end point standards



Beaconsfield Maths Curriculum Structure



The curriculum breadth for each year group ensures each teacher has clarity as to what to cover; this will be an amalgamation of National Curriculum programmes of study and the needs of individual cohorts. As well as exploring age appropriate knowledge and skills, it allows pupils to apply them in various contexts including a real-life.

Concepts are the key disciplinary aspects of each subject. They are chosen to build conceptual understanding within maths and are repeated many times in each unit and year group.

Maths standards define the expected levels of attainment for the concepts, reflecting the National Curriculum expectations in each programme of study.

Small steps to the end points (NC attainment targets and Maths Standards) breaks down the journey into small steps, spending time carefully considering each. Through intelligent practice and building up experience of different contexts, gradually moving towards mastery where students are fluent in the unfamiliar and can apply their skills in any new situation.

Sustained Mastery – nothing is learned unless it rests in pupils' long-term memories. This does not happen, and cannot be assessed, in the short term. Assessment, therefore, answers the following question: how well are pupils accessing and retaining curriculum content?

Implementation

Our curriculum design, as detailed above, is based on evidence from cognitive science; three main principles underpin it:

- learning is most effective with spaced repetition
- interleaving helps pupils to discriminate between topics and aids long-term retention
- retrieval of previously learned content is frequent and regular, which increases both storage and retrieval strength.

In addition to the three principles, we also understand that learning can be invisible in the short-term and that sustained mastery takes time.

Planned sequences of learning include daily opportunities for retrieval and reasoning, building upon previous learning and making links explicit. Tasks provide opportunities for consolidation and application at varying



levels of cognitive demand. All pupils have access to all levels of the tasks to ensure that a 'ceiling' is not placed on learning and that the foundations of maths are secure before advancement occurs.

Impact

The impact of our curriculum is that by the end of each year, the vast majority of our pupils have sustained mastery of the content; that is, they remember it all and are fluent in applying it. Some pupils will have a greater depth of understanding.

Progress in the lessons is planned for and assessed against our maths standards (year group expectations) which are progressional steps towards National Curriculum attainment targets.

Progress is assessed daily, then at the end of each unit, with an overall teacher judgement at the end of each term. A maths test, which uses a standardised score system is also completed to contribute towards the termly judgment of progress and attainment.

Teachers meet with the headteacher and SENCo at the end of every term where every child's progress in maths is reviewed along with quality assurance of evidence of progress and learning. Outcomes of the pupil progress meeting are then shared with the subject leader and future planning, provision and CPD for staff are adjusted accordingly.

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