



**Inspiring Futures  
through Learning**

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**Mathematics Core Values Policy**

September 2023 to 2024



<b>Policy name:</b>	IFtL Mathematics Policy
<b>Version:</b>	V4
<b>Date relevant from:</b>	September 2023
<b>Date to be reviewed:</b>	September 2024 <i>This policy will be reviewed every year unless legislation dictates otherwise. Recent changes in Legislation will need to be read and used to review this Policy.</i>
<b>Role of reviewer:</b>	IFtL Head of School Improvement
<b>Statutory (Y/N):</b>	Y
<b>Published on website*:</b>	2B

<b>Policy level**:</b>	2
<b>Relevant to:</b>	All employees through all IFtL schools and departments
<b>Bodies consulted:</b>	Employees School / department governance bodies
<b>Approved by:</b>	IFtL Board of Trustees
<b>Approval date:</b>	29 <sup>th</sup> August 2023

**Key:**

**\* Publication on website:**

**IFtL website**

1

2

3

Statutory publication

Good practice

Not required

**School website**

A

B

C

Statutory publication

Good practice

Not required

**\*\* Policy level:**

1. Trust wide:

- This one policy is relevant to everyone and consistently applied across all schools and Trust departments with no variations.
  - o *Approved by the IFtL Board of Trustees.*

2. Trust core values:

- This policy defines the values to be incorporated fully in all other policies on this subject across all schools and Trust departments. This policy should therefore



from the basis of a localised school / department policy that in addition contains relevant information, procedures and / or processes contextualised to that school / department. o *Approved by the IFtL Board of Trustees as a Trust Core Values policy.*

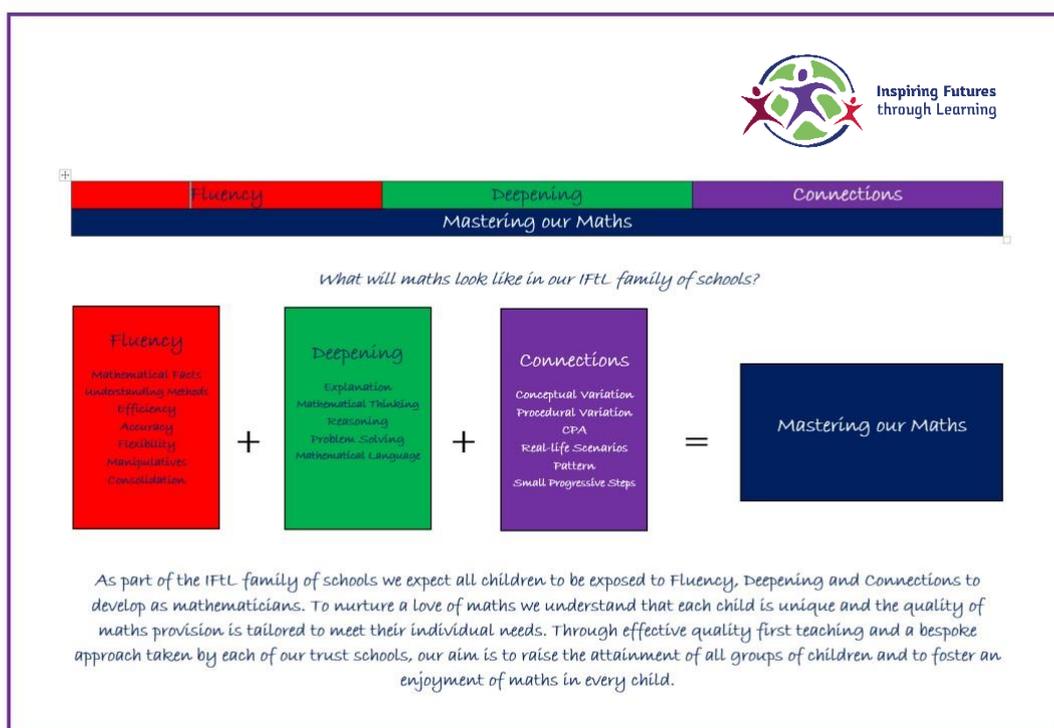
- o *Approved by school / department governance bodies as a relevantly contextualised school / department policy.*

3. School / department policies

- These are defined independently by schools / departments as appropriate o *Approved by school / department governance bodies.*

**IFtL Mathematics Offer and Core Values**

As part of the IFtL family of schools we expect all children to be exposed to Fluency, Deepening and Connections to develop as mathematicians. To nurture a love of maths we understand that each child is unique and the quality of maths provision is tailored to meet their individual needs. Through effective quality first teaching and a bespoke approach taken by each of our trust schools, our aim is to raise the attainment of all groups of children and to foster an enjoyment of maths in every child.



**Core Values**

All our schools believe in the IFtL core values which permeate all we do. The core values of our trust, upon which our schools have based their curriculum, are as follows:



- **Fun** – We value the importance of providing a creative, practical and enjoyable mathematics curriculum, which generates an interest in learning. *(Exploring the beauty, awe and wonder of the world through a wide range of experiences and opportunities.)*
- **Unique** - We value the way in which all children are unique, and our mathematics curriculum supports all to achieve through a bespoke approach in each trust school. *(Nurturing and supporting us all to be self-assured and promote our emotional, mental and physical well-being.)*
- **Together** - We value how collaborative work supports pupils in developing respect for the opinions and work of others. *(Embracing a love of mathematical learning.)*
- **Unafraid** – We value our mathematics approach to encourage the development of a confident, independent and positive attitude towards mathematics. *(Self-belief to achieve their dreams and aspirations.)*
- **Responsible** – we value how the children will develop mathematical skills necessary for life and an awareness of the uses of mathematics in the world outside the classroom. *(Creating independent and resilient learners who are equipped with the skills to contribute to an ever-changing world and are fully prepared for future success in their next steps.)*
- **Energetic** – We value optimism and ensure our curriculum fully-prepares our pupils for readiness to be life-long and successful learners. *(Purposeful, enriching experiences and opportunities within an inspiring and engaging curriculum, underpinned by core skills and knowledge which enables pupils to develop and discover their interests and talents.)*
- **Safe** - We are secure in our beliefs. We are protective and firm, we make decisions together.

### **Mathematical Priorities and Intent:**

Our maths curriculum will promote:

- A secure understanding of the important concepts and an ability to make connections within mathematics.
- A broad range of skills in using and applying mathematics.
- An understanding of the importance of mathematical skills in everyday life.
- A fluent knowledge and recall of number facts and the number system.
- A commitment to and passion for mathematics
- The ability to show initiative and resilience in solving problems in a wide range of contexts, including the new or unusual.



- The ability to think independently and to persevere when faced with challenges, showing a confidence of success.
- The ability to embrace the value of learning from mistakes and false starts.
- The ability to reason, generalise and make sense of solutions.
- A wide range of mathematical vocabulary.
- Fluency in performing written and mental calculations and mathematical techniques

**Implementation** - The implementation of the mathematical curriculum will be determined by each school - their curriculum offer and policy will ensure it incorporates and promotes the core values and principles highlighted within this document. Each school will detail their approach, bespoke to the needs of their school community, in their own mathematical policy and offer underlying this IFtL offer. Schools will ensure that the curriculum is designed and implemented with attention to rehearsal and retrieval practice at the core to allow children to embed the essential knowledge to become automatic and allow children to apply effectively.

**The Curriculum Impact, including mathematics are** that all schools within the Trust, through their curriculum, aim to enable children and pupils to achieve well and to become:

**High achievers & successful learners** who have a passion for learning, make progress and achieve

- Have essential skills and knowledge of English, math's, communication and technology;
- Enjoy and are motivated and determined to reach their full potential, now and in the future;
- Are open to new thinking and ideas;
- Able to learn independently and collaboratively, as part of a team;
- Communicate effectively in a variety of ways;
- Have enquiring minds and think for themselves to process information, reason, question and evaluate;
- Are creative, innovative and resourceful, able to identify and solve problems in ways that draw upon a range of learning areas;
- Know about big ideas and events that shape our world.

**Confident individuals** who are equipped with the skills to contribute to an ever-changing world

- Have a sense of self-worth, self-awareness and personal identity that enables them to manage their emotional, mental, spiritual and physical wellbeing;
- Relate well to others and maintain good relationships;
- Become increasingly independent and are able to take the initiative;
- Make healthy lifestyle choices;
- Take managed risks and stay safe;
- Are willing to try new things and make the most of opportunities;
- Have a sense of optimism about their lives and the future;



- Develop personal values and attributes such as honesty, empathy and respect for others.

**Responsible citizens** who make a positive contribution to society

- Are prepared for their role as a family member, in their community and life in modern Britain;
- Have secure values and beliefs and have principles to distinguish right from wrong;
- Understand their own and others' cultures and traditions within British Heritage, and have a strong sense of their own place in the world;
- Co-operate with others;
- Respect others and act with integrity;
- Appreciate diversity;
- Sustain and improve the environment, locally and globally.

All IFtL schools are committed to ensure all our children are:

**Ready for learning** at each stage of their education and beyond

- Embrace learning and achieving the very best they can be;
- Are fully and well prepared for the next stage in their school journey;
- Understand their own and others contributions to ensure they are best prepared for all aspects of their learning and journey throughout their education;
- Take ownership of their own learning and development;
- Understand what helps them learn and what prevents them developing strategies to overcome barriers.

**Purposeful learning experiences** provided and embraced throughout all areas of the school curriculum

- Positively respond to high expectations and opportunities provided them;
- Celebrate the unique school and local communities;
- Embrace purposeful learning that challenges and fulfils every individual;
- Are reflective learners who aspire to improve and develop, learning from mistakes;
- Are nurtured, challenged and inspired to achieve their full potential.

**Engaged Individuals** who are persistent, persevere, creative and are dynamic

- Have a determination to learn and overcome obstacles;
- Embrace challenge and the learning opportunities offered them;
- Aspire to be the best they can be;
- Mutually respect and trust themselves and others;
- Collaboratively pursue excellence;
- Actively involve and immerse themselves in school and community life; • Celebrate uniqueness and being part of one school and Trust family;
- Are intrinsically motivated to be the best they can be.



## The Quality of Education

Teachers reinforce an expectation that all pupils are capable of achieving high standards in mathematics. The expectation is that the large majority of pupils' progress through the curriculum content at the same pace with relevant adaptations to ensure children have time to rehearse new learning to commit to its long term memory. However, decisions about when to progress will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Adaptation is achieved ensuring secured knowledge is achieved in the long term memory through high quality teaching, targeted support and intervention. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will consolidate their understanding, including through additional practice, before moving on.

## Early Years Foundation Stage

All children in the EYFS follow a broad-based curriculum and have a wide range of opportunities to explore mathematical concepts; both planned and self-initiated inside and outdoors. Children also take part in whole class and group activities designed to develop mathematical language and concepts. This supports development of initiative and an ability to work both independently and in cooperation with others. Resources are used imaginatively and creatively to stimulate curiosity and excitement about the world around them and to develop an understanding of mathematics through a process of enquiry and investigation. All adults ensure they model the correct, rich mathematical vocabulary in all aspects of the curriculum to support the children's understanding of key concepts.

Schools within the IFtL Trust will ensure they work towards the Early Learning Goals for mathematics, whilst continuing to ensure that children are not limited to these within their curriculum. This means that children have the opportunity to develop reasoning skills across all areas of mathematics, including space shape and measures. The way Early Years Curriculum is implemented is bespoke to the needs of individual schools and their pupils, but must focus upon understanding the basic principles of number and number patterns as this is fundamental to securing mastery at all levels within school. All schools will ensure that the curriculum allows for children to gain a secure understanding of number within ten. This includes concepts such as, but not limited to, number bonds to five and ten, subitising, addition and subtraction, odds, evens and comparing quantities. This ensures that children have a secure and deep understanding of the basic principles of mathematics by the end of their journey through the Early Years, ready to apply their knowledge of these concepts when they move into Year 1. Children should be given plenty of opportunities to access a range of manipulatives to ensure they are able to fully explore and apply this understanding. Full details of the Early Years Framework for 2023 can be found here:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1170108/EYFS\\_framework\\_from\\_September\\_2023.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1170108/EYFS_framework_from_September_2023.pdf)



## **Progression of skills**

The mathematics curriculum must be carefully planned so that lessons build sequentially through the culmination of both knowledge and skills. Care and attention must be paid to identify not only the next step for a pupil, but where they have come from in their learning journey so far. Teaching staff must always be aware of the mathematical skills required to develop both factual & procedural fluency and conceptual understanding. Without a clear knowledge of the prerequisite skill, there are likely to be significant challenges.

## **Curriculum Coverage**

Across our schools, we use mastery resources from the NCETM, White Rose Maths Hub and approved DFE schemes of work (Maths no Problem and Power Maths) to plan a mathematics curriculum offer of the highest quality with suitable coverage. Furthermore, we use the 'Ready to Progress' criteria published by the DFE, in partnership with the NCETM, to ensure our curriculum sequentially and cumulatively develops strong pupil knowledge, understanding and skills with progression occurring throughout the year and across the years within our schools.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/897806/Maths\\_guidance\\_KS\\_1\\_and\\_2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/897806/Maths_guidance_KS_1_and_2.pdf)

Our teachers ensure their mathematical curriculum plans to eliminate gaps, and should they occur or be in place on entry, they are swiftly identified and timely interventions will occur to close them. Our schools will ensure all teaching staff are provided with effective CPD and support so that they have good subject knowledge for all the areas within mathematics they teach and that all provide a quality education; to ensure effective delivery, check pupil understanding systematically and quickly adapt their teaching to address misconceptions or misunderstandings.

## **Assessing Pupil Progress**

It is essential that teachers regularly monitor pupil progress so that gaps in knowledge can be identified, planned for and targeted in further lessons. Moreover, having a clear knowledge of the impact that each lesson has had allows teaching staff to put in place further intervention for those who may need it. Teaching mathematics with a mastery approach means that lessons must follow a carefully planned sequence and, if there are gaps identified in an individual's understanding, support must be put in place so that the child(ren) is able to access future learning without falling further behind their peers. IFTL schools will balance formative and summative assessment throughout the academic year to build a secure understanding of the needs of all children with a focus on arithmetic, times tables and mathematical reasoning. Schools will use formative assessment so that teachers can build an accurate picture of how a child is progressing each day, within and across lessons for the different aspects of mathematics, as summative assessment only provides a snapshot of their composite performance at intervals throughout the year. Additionally,



schools will complete the following national summative assessments; end of key stage assessments (SATs), the reception baseline assessment (replacing Year 2 SATs from 2022/23) and the multiplication tables check in Year 4.

## **Key Stages 1 and 2**

The principal focus of mathematics teaching in Key Stages 1 and 2 is to ensure that pupils develop confidence and mental fluency.

Children will be taught mathematical knowledge, skills and understanding through:

- Direct instruction following a clear, small-step progression, building gradually on previously learning and providing appropriate challenge for all.
- Using relevant real-life examples and mathematical models and images to develop secure conceptual understanding.
- Practical activity, exploration and discussion.
- Using mathematical ideas in practical activities then recording these using objects, pictures, diagrams, words, numerals and symbols.
- Quality questioning and supported discussion to probe understanding and remedy their misconceptions. They will be supported in making their thinking clear to themselves as well as others when discussing their mathematics.
- Carefully designed variation within this builds fluency and understanding of underlying mathematical concepts in tandem.
- A school-agreed calculation policy.
- Using a robust assessment system that tailors interventions and planning to support all learners to progress.

## **Key Stages 3 and 4**

We provide pupils with opportunities to understand the rules and methodology that build on pupils understanding on how to solve problems. We nurture pupils to enjoy mathematical approaches and enquiry through a knowledge-based curriculum, that is carefully crafted to allow pupils to embed their knowledge and skills.

We ensure that our curriculum is designed so our pupils actively participate in the teaching and learning process so that they can acquire the knowledge essential to be ready for their next stage of learning and achieve well. Pupils with the greatest need are given additional support to aid with catch-up/keep up plans.



Key Stage 3 (KS3) follows mathematics covered in the primary school phase as part of the 'all-through' curriculum. The KS3 spiral curriculum is sequenced to ensure that concepts and content is built up to support subsequent units and learning in future years. The topics are consistently interleaved through lesson starters, questioning and modelling within the classroom, increasing in difficulty each time building from students' prior knowledge. Within Key stage 3, the focus is primarily on covering the key concepts of Number, Algebra, Ratio & Proportion, Geometry, Measure, Probability and Statistics. The content is continually built upon to ensure pupils fully access GCSE Mathematics in their KS4 Years. Pupils regularly perform retrieval tests that enable them to retain and utilise key knowledge for subsequent units/years.

#### KS4 (Year 10)

Year 10 continues to build upon KS3 concepts where the same units are visited but become more challenging. Pupils have built a proficient schema throughout KS3 to access the GCSE content suitably. By the end of year 10 pupils will have covered all content required for their GCSE.

#### KS4 (Year 11)

Pupils by now have largely covered the GCSE specification. In year 11 teachers and pupils work collaboratively to integrate knowledge into larger and deeper concepts within context

### **IFtL requirements**

At IFtL MAT, we are committed to ensuring our schools provide a broad, balanced, rich and vibrant curriculum including all aspects of mathematics, to excite and motivate our children, enabling them to develop confidence in themselves as independent, enthusiastic life-long mathematical learners. We believe that children respond best when they enjoy ownership of



their learning, when learning experiences are connected, relevant and achieved through practical, purposeful, active learning every day. We understand that ensuring mathematical vocabulary, skills, knowledge and understanding is committed to long term memory and meta-cognition skills are fundamental to creating longer term successful learners; opportunities for these will be embedded throughout the mathematical and wider curriculum.

### **School requirements**

Each school will incorporate the IFtL core values and offer within their school curriculum policy/ offer and include how these core values will be promoted and met within their school. All schools will ensure they include and fulfil all curriculum requirements, including publishing the relevant information to meet website compliancy. The school policy will detail how the school will implement the school curriculum for mathematics and all year groups within their school. Each school will include in their mathematics policy, how they will ensure their school mathematical curriculum offer is of the highest quality with suitable coverage which in turn sequentially and cumulatively develops strong pupil knowledge, understanding and skills with progression occurring throughout the year and across the years within the school. All schools will ensure their mathematical curriculum plans to eliminates gaps, and should they occur or be in place on entry, they are swiftly identified and timely interventions will occur to close them.

Schools will ensure all teaching staff are provided with effective CPD and support to ensure they have good subject knowledge for all areas within mathematics they teach and that all provide a quality education; to ensure effective delivery, check pupil understanding systematically and quickly adapt their teaching to address misconceptions or misunderstandings.

### **Safeguarding Statement**

Safeguarding is everyone's business. IFtL is committed to ensuring that all our children, young people and adults are safe and feel safe.

If you have any concerns at all, raise them **immediately** with the local DSL or IFtL's Head of Safeguarding, Health, Children and Families: [vblackmore@iftl.co.uk](mailto:vblackmore@iftl.co.uk)

For further contact details, see:

- IFtL Child Protection and Safeguarding policy
- IFtL Whistleblowing policy

<https://www.iftl.co.uk/policies/>

