

Upton Cross ACE Academy

Policy: Maths Policy

Responsibility: Miss Emily Goodey

Maths Lead: Miss Hannah Davies

Date Adopted by Governors: Feb 2020

Date to be Reviewed: Feb 2022

Intent

Mathematics in our school is recognised as an important component of a broad and balanced curriculum – its branches interwoven in other subject areas. At Upton Cross we follow the National Curriculum for Mathematics (2014). We aim to deliver an inspiring and engaging mathematics curriculum through high quality teaching, enabling the children here to be numerate, creative, independent, inquisitive, enquiring and confident. We endeavor to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them throughout their lives. We have high academic expectations and aim to provide children with mathematical skills for daily life.

Our mastery approach allows children to develop a deep understand of mathematics. Children will cumulatively build skills, knowledge and understanding via a carefully sequenced curriculum which provides opportunities for children to revisit learning. Long and medium term plans will ensure clear progression in key skills in line with national expectations.

Children will demonstrate:

Independence – applying their skills or knowledge independently.

Fluency – confidently recall facts and use their mathematical knowledge in a range of different contexts, including in other areas of the curriculum.

Reasoning- make connections between different areas of maths and use mathematical vocabulary to explain their understanding to others.

Problem Solving- challenging and extending their thinking within real life problems.

The National Curriculum describes cultural capital as the

‘Essential knowledge that pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender and appreciation of human creativity and achievement.’

We recognise that children have various life-experiences, different pre-existing knowledge, and language acquisition. Our equitable provision will ensure that every child should have access to teaching of the highest standard and to learning opportunities which ensure that full potential is reached and through this provision enable them to overcome any disadvantage to fulfil their potential.

IMPLEMENTATION

Teachers enable pupils to connect new knowledge with existence knowledge by using a range of real life contexts that spark enthusiasm and relate to topic work in other areas of the curriculum. We also

endeavour to provide opportunities to children to use and apply mathematical skills in other timetabled learning sessions eg PE, science, geography etc.

Teachers plan sequences of lessons that allow children to progress in small steps enabling us to manage children's cognitive load.

We provide a quality first teach experience in our daily maths lesson and aim for excellence. Well-structured lessons, organised into small steps, provide children with opportunities to:

- Become fluent in number facts and methods through varied and frequent practise;
- Reason mathematically by following a line of enquiry, conjecturing, justifying or generalising using mathematical language
- Problem solve by applying their mathematical skills in increasingly complexity.

Teachers use White Rose Maths resources to provide deep questioning which develop children's understanding and stimulate mathematical thinking. They use in-the-moment assessment techniques eg hinge points and modify or reframe learning in response to outcomes. Understanding is developed by providing children with a range of learning experiences using different models and contexts. Learning progresses through concrete, pictorial and abstract representations of new mathematical concepts and children are able to use appropriate manipulatives when they choose.

Teachers address misconceptions via same and next day interventions.

To ensure that our children have fluent recall, KS2 complete a Fast Daily Maths Challenge daily where they complete a multiplication table in a timed manner. We also support children to 'know more and remember more' by providing regular opportunities to practise previously learnt skills (5 daily warm up questions at the start of lessons)

Homework appropriate to children's age and stage (Mathletics); and online resources that help to develop numerical fluency support home school links.

We provide regular, systematic training for all staff in all these areas and in the key knowledge that needs to be imparted in each age and phase. Our calculation policy supports a consistent approach and provides information for parents. Curriculum leaders for maths access training and support, and share good practice via the KTSA and schools within the Kernow Learning Trust.

Monitoring activities, including lesson observations and pupil conferencing, help us to identify areas for further development. A range of strategies (feedback, targeted training, coaching etc) feeds improvement.

Teachers and leaders use formative assessment and termly summative assessment to monitor progress triangulate teacher judgements. They identify gaps and recognise and provide for next steps in children's learning.

IMPACT

The high quality, mathematical experiences at Upton Cross ACE Academy will produce students who are confident and competent in real life mathematical situations. They will be resilient learners who display a real enjoyment of mathematics.

Pupils will be prepared to take on mathematical challenges that stretch, excite, engage, enthuse and allow them to interact with the world they inhabit. They will be prepared for their next stage of their educational journey.