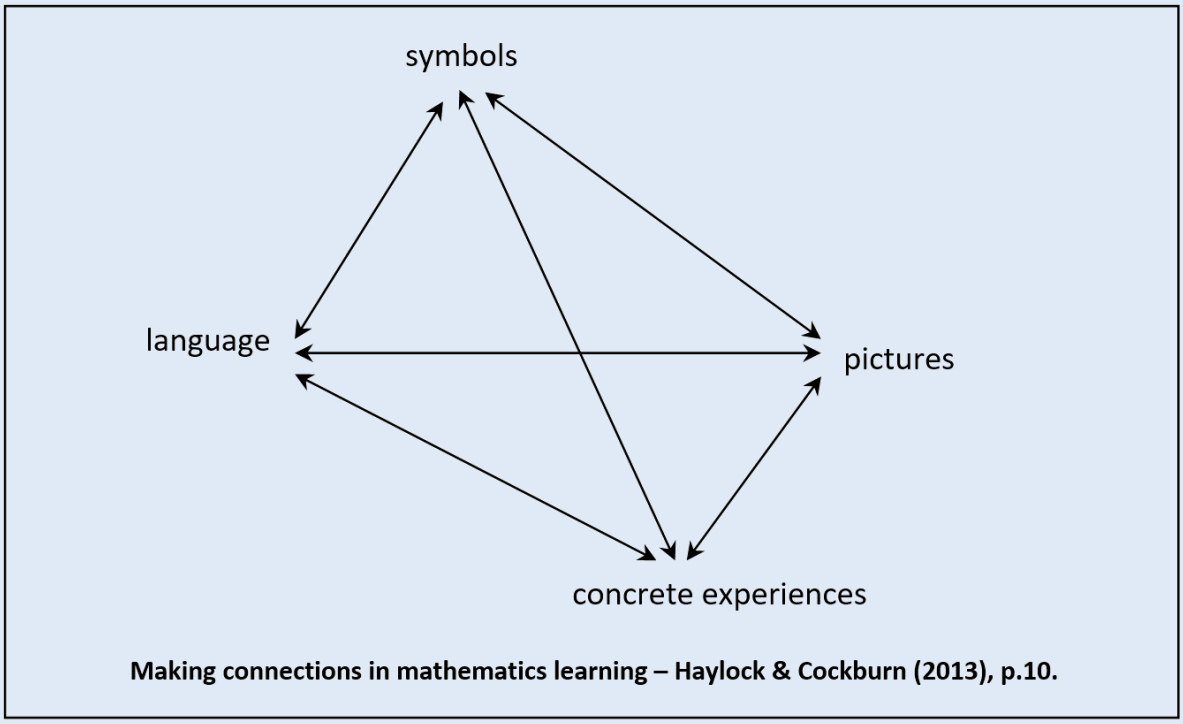
Lydgate Junior School
MATHEMATICS CURRICULUM STATEMENT

At Lydgate Junior School, our intention is for our children to become confident, competent and curious mathematicians.

Intent

- We aim for our children to become confident, competent and curious mathematicians.
- We believe that all children can do maths.
- We want our children to enjoy maths and be motivated to learn and discover more.
- The connective model (Haylock and Cockburn, 2013) underpins our lesson design, and we aim to enable the children to make connections to develop a deep understanding of mathematical concepts.



Making connections in mathematics learning – Haylock & Cockburn (2013), p.10.

- Our children will be able to use a range of mathematical vocabulary when talking about maths.
- The children will make connections between concepts and ideas through discussion, reasoning and problem solving.
- The children will be fluent in their recall of key facts, including all multiplication tables up to 12x12.
- Our children will become resilient learners with the confidence to persevere with challenging problems.

Implementation

- We follow a mastery approach to maths where the learning is broken into small steps towards achieving the learning intentions of the National Curriculum.
- We use the White Rose Maths Scheme alongside Power Maths as our medium term plans to teach mathematical concepts in blocks of work that build the children's knowledge and skills each year.
- White Rose, Power Maths and NCETM (National Centre for the Excellence in the Teaching of Mathematics) resources are used alongside other published materials to make weekly plans with steps to suit the needs of our children.
- Lessons are planned in small steps to enable all children to keep up, with built in challenges designed to encourage higher attainers to think deeply about the maths they are learning.
- Children are taught in mixed attainment groups, and we begin every lesson with the aspiration that every child can achieve the small step in learning. They are then provided with support or further challenge within the lesson if they need it.
- Gaps in learning are identified within lessons and steps taken to help the children to overcome barriers and misconceptions.
- Mathematical concepts are taught through a concrete-pictorial-abstract approach. The four calculation progressions set out the steps the children will take to learn the standard written calculation methods by the end of Key Stage 2.
- The key visual representations we use to support a deep understanding of addition and subtraction are number lines and bar models. The key representations for multiplication and division are arrays and bar models.
- Key ideas are revisited frequently, applied to different contexts and rehearsed. The Fluency Key Skills document outlines the key mathematical facts and mental procedures that the children rehearse and revisit throughout each year. Every maths lesson begins with 5-10 minutes of fluency practice.
- Multiplication tables are taught daily in Years 3 and 4, and rehearsed regularly in Years 5 and 6, following the Multiplication Tables Long Term Plan.
- We explicitly teach mathematical vocabulary so that the children have the language they need to explain their mathematical thinking. Correct mathematical vocabulary is modelled by adults. 'Star Words' are displayed for the children to refer to and use.
- Children are encouraged to be flexible and to try different approaches to problems, and to persevere when faced with a challenge.
- Children are encouraged to question, hypothesise, explore and discover patterns.

- Progress is monitored through the school assessment procedures and children are identified for intervention or further support.
- Interventions include: being part of a focus group with the class teacher/ teaching assistant, booster groups to work on identified gaps, one-to-one tuition.
- Frequent staff professional development sessions take place, key ideas and concepts are revisited, and teachers are consulted on all progression documents.

Impact

- Children are confident mathematicians – they enjoy maths and have the resilience to try different approaches to solve mathematical problems.
- Children are competent mathematicians – they have the knowledge and basic skills needed in their everyday life and are prepared for further study at Key Stage 3.
- They can accurately carry out standard calculation methods for addition, subtraction, multiplication and division.
- They are fluent in the key skills (including all multiplication tables up to 12x12) and are able to move between different contexts and representations flexibly.
- Children are curious mathematicians - they make connections and ask questions.
- They have the vocabulary to be able to communicate their mathematical reasoning.
- The percentage of Year 6 children who achieve the expected standard or above in the end of Key Stage Mathematics Tests (SATS) is in the top quintile of schools.
- The outcomes of the Year 4 Multiplication Tables Check (MTC) will be in the top 20% of schools.

We are a Rights Respecting School, so the Rights of the Child are an integral part of the design of our mathematics curriculum. In particular:

Article 12 – The right to give their opinion and be listened to.

Article 13 – The right to find out things and share what they think with others.

Article 17 – The right to get information that is important to their wellbeing.

Article 28 – The right to a good quality education.

Article 29 – Education should help children to use and develop their talents and abilities.

Reference:

HAYLOCK, D. & COCKBURN, A. (2013) ***Understanding Mathematics for Young Children*** (4th Edition), London: Sage Publications.

Linked Documents:

Calculation Progressions, Fluency Key Skills, Multiplication Tables Long Term Plan, RRS Statement.