

Jurassic Maths Hub Teaching for Mastery Statement

Principle: The intention of teaching for mastery is to give **all** pupils (including those with SEND) access to **equitable** classrooms; classrooms where pupils can all participate and be influential, and classrooms where pupils are encouraged and supported to develop a deep connected and sustained understanding of the mathematics being explored.

The following may indicate that a teacher is aiming to provide an environment and experiences in line with teaching for mastery:

- All pupils working on the same focus with different support¹ provided to enable all pupils to access the mathematics independently
- Pupils behaving as mathematicians as part of a mathematics community, including:
 - Making decisions both independently and collaboratively²
 - Working flexibly to answer questions, reflecting on the efficiency and simplicity of their chosen methods
 - Making conjectures and generalisations and applying and testing these
 - Having a go, willing to share even when unsure and understanding that this is when learning is taking place
 - Being comfortable with **not** getting everything 'right', embracing purposeful struggle³
 - Talking mathematics⁴:
 - Articulating their thinking
 - Taking responsibility for asking questions of others to clarify understanding
 - Agreeing and disagreeing and justifying their thinking
 - Responding in full sentences with the intention that everyone understands them
 - Exploring the mathematics guided by the teacher
 - Working and learning collaboratively⁵
- The use of subject-specific vocabulary by all adults and pupils in the school from EYFS onwards
- The use of different, appropriate representations, by both adults and pupils, for making sense of the mathematics (exposing structure) and demonstrating understanding
- The use of questioning to develop understanding
- Books show pupils **working on** the same mathematics representing their thinking and understanding in different ways (including with diagrams, models, symbols and writing) rather than pupils **working through** many different examples. This may result in less in the books (especially for younger pupils and pupils with SEND) and no obvious differentiation by task.

The most effective way to find out what pupils understand about their mathematics will be to talk them. Pupils really understand a mathematical concept, idea or technique if they can:

- Describe it in their own words;
- Represent it in a variety of ways (e.g. using concrete materials, pictures and symbols)
- Explain it to someone else;
- Make up their own examples (and non-examples) of it;
- See mathematical connections between it and other facts or ideas;
- Recognise it in new situations and contexts;
- Make use of it in various ways, including in new situations*

**Adapted from NCETM adapted from John Holt 'How Children Fail' 1964.*

¹ Support might not necessarily involve a teaching assistant. Support should be appropriate to the needs of the pupil i.e. as specified on their EHCP or In-school Plan. It may include the use of a cycle of modelling, scaffolding, prompting, independent activity for any new learning/experience and/or pre-teaching to enable pupils to access the class learning.

² For pupils with SEND, this may include choice-making, initially adult-led leading to making choices independently.

³ At a level in line with their needs, supported to do so by adults with whom they are working.

⁴ For pupils with SEND this may include appropriate modelling, scaffolding and pre-teaching.

⁵ For pupils with SEND, this may involve collaborating with an adult rather than another pupil.