**The Essence of Mastery: Self-reflection with prompts**

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| **Statements from ‘The Essence of Mastery’: NCETM, July 2016 *The key can be adapted according to need Eg***   |  |  | | --- | --- | | **0: Rarely evident** | **1: Sometimes evident** | | **2: Embedded in practice** | **3: Highly effective** | | **0** | **1** | **2** | **3** | **Next steps / Areas to develop / Comment** |
| **Maths teaching for mastery rejects the idea that a large proportion of people ‘just can’t do maths’.**  *How is this evident?*  *Is this the same for all adults within the school community?* |  |  |  |  |  |
| **All pupils are encouraged by the belief that by working hard at maths they can succeed.**  *How is this evident?*  *Is this consistent in all classes and for all pupils?* |  |  |  |  |  |
| **Pupils are taught through whole-class interactive teaching, where the focus is on all pupils working together on the same lesson content at the same time, as happens in Shanghai and several other regions that teach maths successfully.**  *What does this ‘look like’ in practice for your pupils?*  *How might this make a difference to all pupils?*  *How can teachers be supported to develop this approach?*  **This ensures that all can master concepts before moving to the next part of the curriculum sequence, allowing no pupil to be left behind.**  *How do teachers plan for a cohesive curriculum sequence?*  *What support (resources/training) might teachers need to plan cohesive learning sequences?*  *What does this ‘look like’ in practice for your pupils?*  *How might this make a difference to all pupils?* |  |  |  |  |  |
| **If a pupil fails to grasp a concept or procedure, this is identified quickly and early intervention ensures the pupil is ready to move forward with the whole class in the next lesson.**  *How are gaps in learning addressed and overcome?*  *Is quick intervention possible to allow pupils to overcome barriers swiftly?*  *How do you know that pupils have overcome barriers?* |  |  |  |  |  |
| **Lesson design identifies**   * **the new mathematics that is to be taught,** * **the key points,** * **the difficult points and** * **a carefully sequenced journey through the learning.**   *What does this ‘look like’ in practice?*  *Which of these aspects are evident in lesson design?*  *How might this make a difference to all pupils?*  *How can teachers be supported to develop this approach?*  **In a typical lesson pupils sit facing the teacher and the teacher leads back and forth interaction, including**   * **questioning,** * **short tasks,** * **explanation,** * **demonstration, and** * **discussion.**   *What does this ‘look like’ in practice?*  *Which of these aspects are evident in lessons?*  *How might this make a difference to all pupils?*  *How can teachers be supported to develop this approach?* |  |  |  |  |  |
| **Procedural fluency~ and conceptual understanding~ are developed in tandem because each supports the development of the other.**  *Is there a shared and consistent understanding of what is meant by procedural fluency?*  *Is there a shared and consistent understanding of what is meant by conceptual understanding?*  *What does this ‘look like’ in practice?*  *Which of these aspects are evident in lesson design?*  *How might this make a difference to all pupils?*  *How can teachers be supported to develop this approach?* |  |  |  |  |  |
| **It is recognised that practice is a vital part of learning, but the practice used is intelligent practice that both reinforces pupils’ procedural fluency and develops their conceptual understanding.**  *Is there a shared and consistent understanding of what is meant by intelligent practice?*  *Is there regular opportunity for intelligent practice?*  *Is intelligent practice used effectively?* |  |  |  |  |  |
| **Significant time is spent developing deep knowledge of the key ideas that are needed to underpin future learning. The structure and connections within the mathematics are emphasised, so that pupils develop deep learning that can be sustained.**  *Is there a shared and consistent understanding of what is meant by deep understanding?*  *How are pupils enabled to recognised links between structure and connections?*  *Are all teachers able to emphasise structure and connections of mathematical concepts?* |  |  |  |  |  |
| **Key facts such as multiplication tables and addition facts within 10 are learnt to automaticity to avoid cognitive overload in the working memory and enable pupils to focus on new concepts**  *Is there a school approach to developing mathematical fluency?*  *Do pupils have regular opportunity to learn tables and facts to automaticity?* |  |  |  |  |  |