Aims of SDI:

* Creates a system that reduces the gap between highest and lowest attaining pupils
* Encourages a diagnostic approach to planning, teaching and assessment (before, during and after the lesson)
* Creates a positive learning culture and improve attitudes towards mathematics

It is important that teachers remember that starting points MUST be considered before a unit of work, as should the sequence of learning or learning journey. Our children need to be aware that their learning is leading somewhere and that a lesson builds on the previous one. It is expected that at least the target percentage of pupils (as identified in pupil progress meetings) are accessing challenge tasks or moving beyond this.

Debbie Morgan, NCETM Director for Primary, states that two of the seven broad characteristics of teaching for mastery are ‘Teachers communicating their expectation that all pupils (except those with extreme special needs) will achieve’ and ‘Keeping the whole class together on the same material.’

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| **Stage of SDI lesson** | **Timings** | **Teacher** | **Pupil** |
| **Register, dinners**  **SODA (start of the day activity)** | **8.40 – 8.55** | Prepared with short list of questions or a game focused on mental recall or key arithmetic strategies  Answers ready to show children  Reward children on task and focused, applying methods already covered in class without prompting | Access task as soon as they walk in  Working on whiteboards  Self-mark or peer assess at the end of this time  Explain to partner what has been done well |
| **Mental maths / arithmetic / initial testing using RM tests?** | **8.55 – 9.10** | Monday – 10 minutes (15 mins in Y6) completing a Ray Maher arithmetic test. Staff circulate, making key notes on planning to inform key teaching points in the week that follows  Review an example question where a simple part of the process needs addressing  Whole-class review of strengths  Tuesday – Friday – teaching to be most common error(s) from tests. Other children to have guided work with TA and / or targeted work | 10 minutes fully focused on mental maths test. Children who finish are expected to self-check using inverse operations where possible.  Self-mark or peer assess  Highlight which questions they have got correct (green), attempted but miscalculated (orange) or if they have missed a question (red). |
| **Whole class input (ping-pong style teaching – I do, you do – high quality modelling)** | **9.10 – 9.25** | Pre-assembly task prepared with a clear understanding of children’s starting points  Introduce to learning intention  Model use of strategy / method that the children will be using in their pre-assembly task with carefully selected examples  Give opportunities for discussion in pairs / small groups  Differentiate through use of manipulatives, support and questioning | Follow task on whiteboards and through discussion  Become aware of learning intention and success criteria  Use strategy on whiteboards independently and working in pairs / groups as directed. |
| **Diagnostic task (5-6 questions at ARE)** | **9.25 – 9.40** | Provide children with 5-6 questions which focus on arithmetic or fluency  All adults circulate and mark unless they are working with a target group  Adults address children showing red or amber on confidence flags immediately to make sure progress is not hindered  Not all children will access the pre-assembly task – some will need an alternative task as they can already do the task or it is inaccessible. | Children work independently to complete questions  Ask for support if they are unable to try independently  Children self-assess using their ‘confidence flags’ as they leave to go to assembly  Children should have completed or nearly completed diagnostic tasks before assembly |
| **Progress pit-stop (marking time to assess and group pupils)** | **9.40 – 10.00** | Children divided into SDI group, challenge and challenge with support  Clear marking symbols are added to the children’s books to identify if they are SDI, challenge, challenge with support or an alternative.  Access to manipulatives is given to those children who have not independently accessed them but need to. | n/a |
| **Same day intervention (immediate intervention or challenging practice for pupils)** | **10.00 – 10.25** | On return to class, teacher explains what they have seen in books and where children need to work and why.  SDI group work with teacher initially but are given time to independently apply their learning towards the end of the session.  Challenge group (including a group which would have additional support) to work on reasoning and problem solving. Support staff should have answers so they can mark within the lesson and give verbal feedback to children. | Find book and sit in place ready to listen  Complete challenge / SDI work but change ‘confidence fans’ throughout activity.  Understand how to self-check and seek help without losing independence  Those on challenge can articulate HOW and WHY different mathematical techniques work, and to make deep mathematical connections (rather than move on to new materials) |
| **Self-assessment (reflection time given to pupils)** | **10.25-10.30** | Bring together the different strands of learning  Whole class feedback (briefly) and then given opportunities for children to self-assess  Paired / small group work may take place to address a particular challenge | Children review their confidence again  Children to contribute with additions to working wall which may be vital for tomorrow’s learning |
| **Other questions to consider:** | **n/a** | Is there any evidence of teachers adapting teaching away from pre-prepared resources  In the lessons before and after this one, is there a logical sequence of learning which is moving towards an aspirational end point for each child?  Is the pit-stop making a difference to pupil flightpath?  Are teachers aware of starting points BEFORE the lesson? | What would I do if I finished the pre-assembly task before the assembly itself?  Am I learning something new or can I already do it?  Am I aware of why I am working on this objective? |

The above structure supports …

