Updated: *What Does a Good Maths Lesson Look Like?* (Feb 24)

A working Wall with relevant, useful content to aid current learning (representations, key vocabulary etc)

Part of a unit designed to take into account assessment from initial 'mini-assessment'.

Lessons designed following previous assessment and 'TARs'.

Once a week – Mixed Retrieval Lesson

½ hr **MIXED** retrieval including (where relevant to year groups):

- place value (e.g. writing numbers, value of digits, rounding etc)
- calculation (strategies already covered)
- fractions
- decimals and/ or percentages
- Measurement (including time)
- Geometry: Shape
- Geometry: position

This should not be new learning. This is all retrieval from previous year groups or previous work in current year.

Answers should be given and children self-mark and discuss.

Please also see our school Retrieval Policy for activity ideas, 'low-stakes' risk etc.

The other ½ hr can be for you to continue new learning.

The Rest of the Week

Lesson Version 1

Warm Up (5 mins ish)

<mark>Number line and/or counting or mental recall of facts relevant to the lesson</mark>
<mark>or</mark>
<mark>Y3 and Y4: ADTTs practice</mark>

Whole Class Input
- A specific learning goal (but doesn't need to be shared with the children. They can 'discover the Maths themselves').
- <mark>**3-5 mins of retrieval** from last lesson. This could be a couple of questions to do on whiteboards/ in books. It's also highly effective to use this as time to respond to feedback and address quick common misconceptions.</mark>
- <mark>**Approx 20 mins of whole-class teaching of new learning**: 'Ping- Pong' or 'I do, We do, You do.'(i.e. teacher shows, we do one together, then children have a go. Repeated with different steps).</mark>
- Carefully planned sequence of small steps that reveal the new Maths and help the children to build on knowledge.
- Carefully chosen representations (concrete or pictorial or both) to exemplify.
- <mark>Stem sentence(s) chosen, displayed and used by teacher and pupils.</mark>
- Varied fluency so that the children see the Maths in a variety of contexts (as necessary).
- Children have representations to use/ manipulate each (or as a pair).
- Children that are struggling with the concept being supported with manipulatives/ representations to help 'reveal the structure of the Maths'.
- TA used to support specific children (with manipulatives etc as necessary).
- A challenge for those who have grasped a concept quickly (e.g. a 'Star Challenge' that involves problem-solving and accurate reasoning / vocabulary).
- Careful questioning skills from the teacher to elicit understanding.
- Lots of opportunities to discuss the Maths verbally and reason without losing pace of learning.
- Insistence on proper use of vocabulary and children's replies in full sentences.

- *All children engaged. 'GDS' or rapid graspers – challenged with PS+R or allowed to start work independently while teacher continues to teach the main concept to others.*

- *An assessment/ hinge question could be used here to determine independent activity or level of support. Teacher's informal assessment during the whole class teaching could also determine this.*

Independent Work
- Varied Fluency
- Problem Solving and Reasoning (for ALL).

- Practical activities (rather than sheet based) to be encouraged in KS1 (and sometimes in KS2)
- Tasks and activities from quality resources (e.g. White Rose, Power Maths, NCETM, Nrich, your own carefully planned sheets including the above).
- Tasks and activities that have been carefully designed for cohesive, small-step learning towards the lesson's learning goal.
- **'Rapid graspers' given opportunity to extend their understanding with PS+R, They can move on to this quickly once they have demonstrated they have fully grasped the main learning.**
- Teacher/ TA working with an identified group at point of need.
- Carefully chosen manipulatives used to support where necessary.
- Pupils recording their work directly into books where possible.
- Layout 'policy' used.

Plenary

- Children self-mark. Discussion of misconceptions, 'marvellous mistakes' or interesting thoughts.
- ALL children taking part during plenary – opportunity to attempt or listen to feedback on challenges they might not have tried in independent work.
- Option to do a Reasoning activity together here.
- Option to do an assessment or 'hinge question' to inform planning of next lesson.

Lesson Version 2: Mixed Age Classes

You may wish to whole class teach one year group at a time while others work independently. To be further developed 2023 – 2024.

Lesson Version 3

As Lesson Version 1, BUT:
Previous lesson's assessment in TAR (Teacher Assessment Record) has informed next steps and level of support for pupils in this lesson. This means less teacher input and more independent work.

A **short Whole Class Input** for feedback. Celebrate good work. Clarify misconceptions or issues.

I**ndependent work** tailored to different pupils' needs and next steps as per assessment. Some groups or individuals supported by the teacher or TA. Often, pupils who have grasped the concept quickly could move on to problem-solving and reasoning without the full whole-class input.

Occasionally, very occasionally, the need for a whole lesson on fluency is understandable - sometimes children just need the practice. Also, make sure it is still _varied_ fluency though. Check to see if there are children who have grasped the concept quickly and would benefit from problem-solving and reasoning.

I can also understand a whole lesson focussing on PS+R and the skills needed.