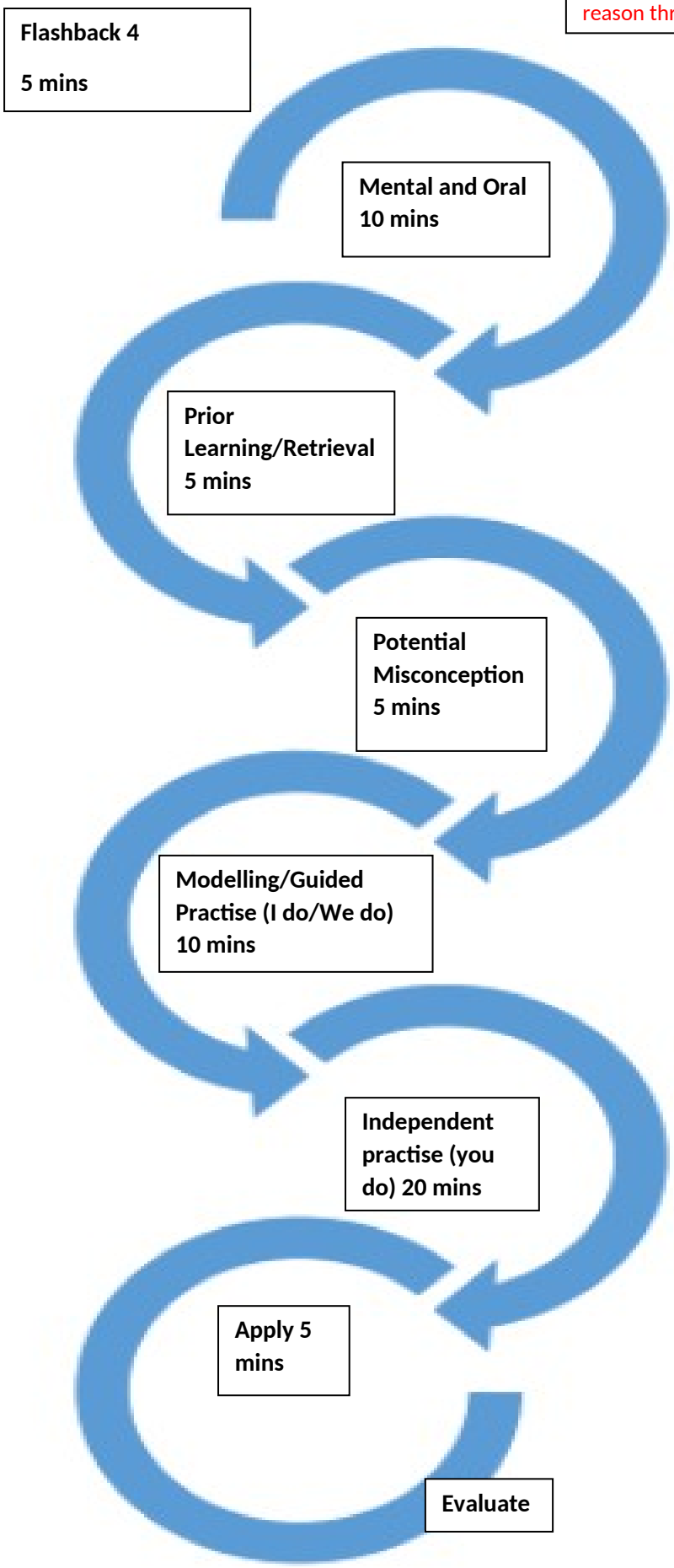
Pipworth Community Primary School Lesson Structure

Pupils should have opportunities to talk and reason through all stages of the lesson.



This structure should be followed, where possible, for all lessons. Lessons can have a practise, problem solving or investigative focus for all pupils. Deeper learning opportunities should be created within each lesson, at each stage, for HAPs. All pupils should have opportunity to take part in all lessons that should be carefully adapted to suit the differing needs of the pupils. Opportunities for all pupils to reason and explain their thinking should be made in all parts of the lesson. Pupils should ***not*** *be moving through practise, apply and deeper learning challenges in each lesson. HAPs should be encouraged to go 'deeper' into each stage of learning through carefully crafted opportunities within each stage such more varied fluency questions, testing out generalisations 9sometimes, often and never and moving swiftly on to independent work). They should be given the opportunity to consolidate their thinking through leading teaching sessions and supporting their peers.*

1.Flashback 4 (5mins)

A series of quick questions covering topics from the previous lesson, last week and from topics earlier in the year, with the intention to recap and ensure essential skills are regularly revisited and retrieved to strengthen retention.

2. Mental and Oral 10 mins

Mental math is a group of skills that allow people to do math "in their head" without using pencil and paper or a calculator. Mental math is useful in school and in everyday life. Mental math can help children understand math concepts better and get to the answer faster. Learning mental maths strategies also helps children develop their concentration, memory and problem solving skills. Mental maths helps to improve children's fluency in a number of mathematical concepts and thus helps aid mathematical recall. *There should be opportunities for pupils to reason and explain their thinking and methods.*

3. Prior Learning/Retrieval 5 mins

A carefully chosen problem/ question relating to previous learning, which sparks curiosity and links to knowledge the children will need for the lesson's learning **new** learning. *Pupils should be given the opportunity to talk and reason throughout this part of the lesson.* This may take longer at the beginning of a new sequence of learning as teachers need to check and ensure that pupils have a secure understanding of previously taught knowledge (from previous year).

Pupils: Through discussion, pupils work together to unpick the maths around the problem.

Teacher: Circulates around the classroom, looking to check pupils understanding and opportunities for deeper questioning for some pupils.

Supporting Adult: Circulates around the classroom, looking for opportunities to check pupils understanding and provide more support /scaffolding for pupils who require more support. .

Resources: Pupils may have access to a range of concrete resources that support pupils in understanding the concept.

4. Potential Misconception 5 mins

It's important to collect and compile these misconstructions so pupils can analyse them, discuss them and, crucially, teachers use them as teaching, learning and assessment opportunities. Paying close attention to misconceptions, being forensic with them and building them into teaching episodes is a valuable teaching technique. This could take the form of spot the difference questions by showing a correct and incorrect answer side by side. *Pupils should be encouraged to explain and reason about their thinking*.

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Supporting Adult: Circulates around the classroom, looking for opportunities to check pupils understanding and provide more support /scaffolding for pupils who require it. .

Resources: Pupils may have access to a range of concrete resources that support pupils in understanding the concept.

5. Modelling/Guided Practise (I do/ we do) 10 mins

Teacher-led session. Teacher takes pupils onto the new learning through precise explanation and modelling. Representations are carefully selected to expose the structure of the concept being taught.

Pupils: Have opportunities to try out, discuss and share methods. Those pupils that have a good grasp of the concept being taught are able to move onto Independent Practice when ready. *Pupils should have opportunities to talk and reason in this part of the lesson.*

Teacher: Precise explanation and modelling. Carefully planned questions to explore understanding. Be aware of pupils who have grasped the concept and move them onto independent practise. Teacher models how to think out loud.

Supporting Adult: Provide more support /scaffolding for pupils who require it by working closely by them (regroup pupils who may need this).

Resources: Flipchart guides pupils through the sequence of learning using visual representations and conceptual variation. Pupils have whiteboards or exercise books to rehearse strategies modelled by the teacher. Pupils may have the same resources used by teacher to practise with.

6. Independent Practice (You do) 20 mins

Pupil-led independence. Pupils practise the skills taught, solving carefully sequenced fluency and reasoning questions. These are planned with conceptual and/ or procedural variation in mind so that pupils develop their understanding of the concept. *Pupils should be encouraged to talk and reason about their learning*.

Teacher: Identifies pupils with misconceptions and supports through focused group/ independence in eradicating these.

Pupils: Pupils record their learning in their workbooks or continue to use resources to work practically. Year 3, 4, 5 and 6 will record the date at the start of their learning each day, in number form, on the LO. Pupils complete carefully sequenced fluency and reasoning questions.

Supporting Adult: Supports pupils with misconceptions through focused group or checks understanding of HAPs asking them to reason and explain their thinking. They can challenge pupils by providing more varied fluency questions in order to further secure and deepen their understanding.

Resources: Conceptual and procedural questions increasing in challenge and exposing the structure of the concept being taught. This could include moving to missing box questions or all possibility questions in the practise stages or asking pupils to answer sometimes, often or never questions whereby they test out and make generalisations.

7. Apply (Plenary) 5 mins

Pupil- led. Challenging non-routine problems are selected for pupils to apply the skills they have mastered throughout the lesson and develop higher-order thinking skills. This could be statements to test, word problems, and generalisations to test or a problem to solve which requires the skills they have just learnt. *Pupils should have the opportunity to talk and reason in this part of the lesson.*

This is through an open-ended task, with multiple possible solutions, or a number of increasingly challenging problems.

Pupils: Will be completing increasingly challenging problems, applying the skills through unfamiliar concepts. HAPs may be asked to lead this session to demonstrate their understating at a higher level. They should be able to explain and reason to their peers using the correct vocabulary and demonstrating their thinking through modelling or jottings.

Teacher: Identifies pupils with misconceptions and supports through focused teaching.

Supporting Adult: Works with identified group of pupils to continue to eradicate misconceptions and secure understanding or support pupils in solving the problem through modelling, scaffolding and skilled discussion/teaching.

Resources: Questions that involve pupils applying the skills that have been taught throughout the session. Opportunities for links between concepts of mathematics are selected through a range of carefully structured problems.

8. Evaluation

Assessment for Learning carried out by the teacher, which takes place either during or after the lesson. Through questioning, discussion with TA, marking and analysis of pupil outcomes, teachers evaluate how successfully pupils have mastered the concept taught and identify which (if any) misconceptions/misunderstanding still persist.

Teacher: Identifies those pupils who have not fully grasped the concept and delivers Rapid Intervention (RI). Through marking and feedback, supports pupils to identify and correct procedural errors and/or further challenge thinking. Adapts short term planning to ensure correctly pitched support and challenge.

Where can we find resources to support planning?

- **NCETM**

  https://www.ncetm.org.uk/resources/49449

  Primary Mastery Development Materials

  Primary Assessment Materials

  Calculation Guidance

- **White Rose Primary**

  https://whiterosemaths.com/

- **NRICH**

  https://nrich.maths.org/

- **Planning Overviews/Kos/Resources**

  W:\StaffShare\Curriculum\#Wider Curriculum 23-24\Maths

- **National Curriculum**

- **Ready to progress criteria**
  https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/

- **Calculation Policy**