

# Glasgow Counts Lessons at Merrylee

## Suggested Structures



### Introduction

*Introductions could revisit themes/ topics to ensure learning is committed to long term memory and pupils have a depth of understanding through **active learning and connecting learning**.*

- Introductory problem for whole class discussion to think about new strategies and approaches
- Number Talk to discuss a range of strategies and apply learning to number strings
- Counting Stick and Number Fans to build fluency
- Always, Sometimes, Never/ Odd One Out/ True or False to discuss misconceptions

*Pupils should have discussed and questioned the effectiveness of strategies and had common misconceptions challenged within the introduction.*

**Core** (Fluency, ensuring all learners have grasped most basic concepts)

- Direct teaching on outcome, skill or strategy- introduce **learning intentions and success criteria**
- **Active learning**- paired/ group practice
- **Demonstrate understanding** through basic, independent number work/ concrete task to ensure all pupils are secure before applying this learning to reasoning and problem solving tasks.
- Hinge-point question/ task to gather feedback from all learners to assess understanding.
- Following basic initial task, teacher should give guidance to pupils on which level of activity - \* \*\* \*\*\*- to complete. This should be responsive to where they are in their learning (how they have applied their skills and strategies to basic practice).
- Activity Stations – Could include: Smartboard / iPad activity; jotter activity; game; concrete activity; problem solving

*Pupils should be confident in basic key numeracy or maths skills before application.*

**Challenge** (Reasoning and Problem Solving)

- Reasoning- tasks that encourage pupils to apply their basic knowledge logically to solve a more complex problem and be able to explain why it works.
- Contextual problems- pupils are challenged to apply their basic knowledge to solve every day problems in which this skill is used.
- Challenge questions from final questions in TeeJay or Leckie and Leckie textbooks.
- White Rose Maths and NCETM problems.

**Plenary** (**Review, Recall and Refine**)

- Glasgow Counts talk placemats
- Top 2- e.g. share one fact you have learned, share one strategy that helped you
- Be the Teacher- teach someone how to use your strategy
- Exit pass questions
- Plenary question boards with post-its. Plenary grids
- How did I grow as a mathematician today?

- Expert card- to be completed at home, in preparation to 'teach' a peer in the following lesson
- CONNECT (how are the ideas and information connected to what you already knew?) EXTEND (what new ideas did you get that that extended your thinking?) CHALLENGE (What is still challenging or confusing for you?)

*Pupils should be able to share how they have tackled challenges or learning. Pupils should be able to identify which strategy is most efficient.*



Refer The Glasgow Good Lesson Cycle for further details at <http://www.goglasgow.org.uk/Pages/Show/56>

## Support and Challenge

- Support learners by helping them select one or two strategies using a visual cards or strategy mat.
- Support pupils by limiting the number of questions they have to answer. If they can complete 5 accurately then they have demonstrated they understand.
- Give a series of problems getting increasingly more difficult and differentiate by outcome (if learners only manage first one or two that is acceptable but more able learners may manage four or five problems).
- Open-ended questions. In how many ways could you solve this problem? Using higher order thinking skills and HOTS questioning to evaluate how deep their learning is (using learned number strategies).
- Ask learners to use more efficient strategies NOT bigger numbers - cut down the number of steps to a solution.
- Challenge learners by asking them to apply their skills to logical reasoning / contextual problems.
- Peer tutoring / Maths Experts. Encourage learners to teach other pupils by explaining their strategies (within a similar working level as themselves).