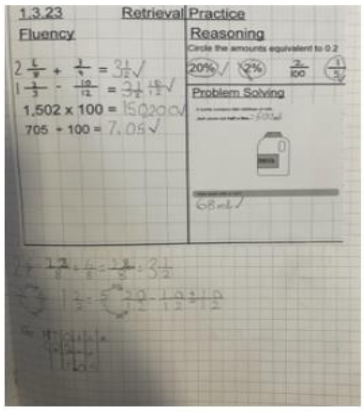
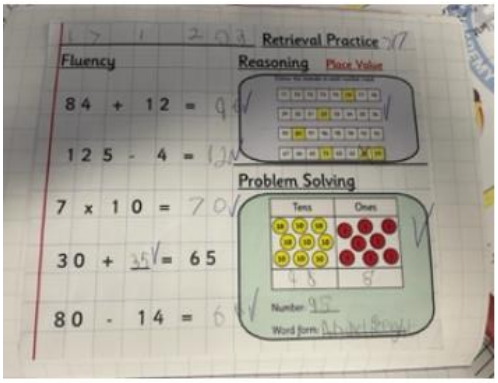
What does maths look like for your child at Dormanstown Primary Academy?

8.40am – **spaced retrieval questions.** This is a quick session at the start of the day for children to practice their mental strategies and calculations. These questions should reflect prior learning and the stage the child is working it but should be "effortful", therefore strengthening the long-term memory. These are discussed, marked and corrected with purple pen. If children are late to school frequently, time will be provided later in the day to catch up. Once a week, the focus is on reasoning and problem solving, where the class explore an area together that requires deeper thought. Teachers regularly monitor children's success to identify gaps in knowledge or misconceptions that frequently occur.



Year 6 example



Year 2 example

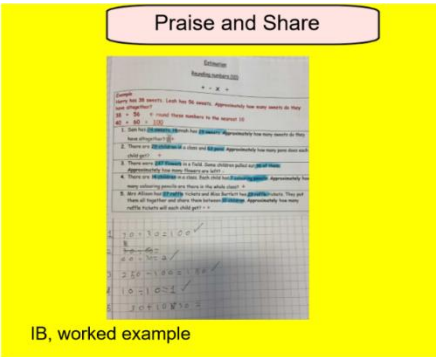
8.40 am– **Pre-teach** – if the teacher feels that either today's maths session is going to be very challenging for any pupils, LSA's deliver a pre-teach that will help the pupils access the main lesson.

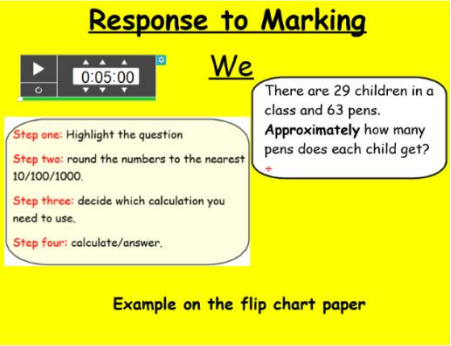
Winning with Numbers – This daily number session starts every maths lesson from reception to year 4. **Winning with numbers (WWN)** is a structured system for ensuring a learner acquires basic number knowledge with lasting memory and high performance. WWN integrates cognitive science teaching principles, extensive high-quality digital resources, and a correct and detailed sequence of leaning. The teacher's focus is on guiding learners along the path to numeracy, one win at a time. This structures system allows children to learn how to count through connected and overlapping pathways. Once established, the counting process becomes inefficient as number facts, concepts and procedures take over and accumulate, providing quick and fluent number knowledge.

Please ask your child's class teacher for their login so that you can join in at home too!

Feedback

Every maths lesson starts with a yellow feedback screen - what did pupils do well yesterday? This is informed by teacher assessment at the end of every day. The class also take time to look at some concepts that they found challenging and work through some examples together as a class.





Activating prior knowledge, vocabulary and addressing and knowing common misconceptions

- The main body of the lesson starts by introducing the overall learning objective and activating prior knowledge through use of discussion and questioning.
- This is an opportunity to discuss and address common misconceptions.
- This uses a range of questioning techniques, simple quizzes and challenges to activate prior knowledge and introduce new language.

Sequence of learning- scaffolding/modelling, independence/guided group work

- Using key questioning of children to elicit their understanding.
- Use concrete and pictorial methods prior to abstract learning
- Provide small steps as success/process criteria.
- Modelling several times may be needed to whole class or groups of children depending on need.
- We use a model of I do, We do, You do to scaffold children through worked examples to build confidence before children independently solve similar problems and lead into problem solving.
- Tasks for children to complete independently or with adult support can be sourced from a range of places (see list below).

Deeper Learning – "mastery at greater depth"

Targeted GDS pupils are given lots of opportunities to:

a) solve problems of greater complexity (i.e. where the approach is not immediately obvious), demonstrating creativity and imagination;

b) independently explore and investigate mathematical contexts and structures, communicate results clearly and systematically explain and generalise the mathematics.

This group will sometimes need support with this from either the class teacher or LSA.

Oracy/Verbal Reasoning

- The national curriculum for mathematics reflects the importance of spoken language in pupils' development across the whole curriculum. The quality and variety of language that pupils hear and speak are key factors in developing their mathematical vocabulary and presenting a mathematical justification, argument or proof.
- A range of question starters to support oracy and verbal reasoning are included in the TVED progression documents for each year group. These question stem starters are a very powerful way of developing pupils' reasoning skills and can be used flexibly. Many are transferable to different areas of mathematics and can be differentiated through the choice of different numbers and examples.

Oracy/Verbal reasoning questions include:

- Spot the mistake / Which is correct?
- True or false?
- What comes next?
- Do, then explain
- Make up an example / Write more statements / Create a question
- Possible answers / Other possibilities

- What do you notice?
- Continue the pattern
- Missing numbers / Missing symbols / Missing information/Connected calculations
- Working backwards / Use the inverse / Undoing / Unpicking
- Hard and easy questions
- What else do you know? / Use a fact
- Fact families
- Convince me / Prove it / Generalising / Explain thinking
- Make an estimate / Size of an answer
- Always, sometimes, never
- Making links / Application
- Can you find?
- What's the same, what's different?
- Odd one out
- Complete the pattern / Continue the pattern

Why not have a go at some of these at home?

Post teach

If children have found the morning's lesson challenging and have misconceptions or errors, LSA's spend a short session on the afternoon remodelling a concept.

Summative Assessment

Children complete year appropriate Pixl assessments termly.

Assessment Frameworks

Assessment sheets are in the front of pupil books and dated when a pupil has successfully completed an objective.

Working walls

Working walls are visible in all classes and they reflect and support children in their current unit of learning in maths. The main purpose of a working wall is to support children in their current learning and enable independence.