

Lightcliffe C of E Primary School
Early Years Foundation Stage

Mathematics in Reception

In partnership to Educate, Nurture & Empower



Intent

Our intent in early mathematics is to secure deep number sense so every child builds strong foundations for future learning. By the end of Reception, children will:

- **Develop fluent number sense within 10** through daily exposure to subitising, comparison, composition and early calculation.
- **Use precise mathematical language** to describe what is seen (e.g., equal/unequal, more/fewer, whole/part, double) and justify thinking.
- **Make connections between representations**, moving fluidly between real objects, structured images (e.g., 5-frame, 10-frame, Hungarian number frame), fingers, sounds, and numerals.
- **Reason and explain** using patterns (including the “staircase” pattern of counting), relationships, and consistent models and images.
- **Apply understanding in play and provision**, selecting manipulatives independently and persevering with challenge.
- **Keep up, not catch up**, through targeted small-group support so misconceptions are noticed early and addressed promptly.

This focus ensures that children enter Key Stage 1 confident with counting, comparing and composing numbers, and able to talk clearly about mathematical ideas.

Our Approach

We follow the NCETM Mastering Number programme to guarantee coherence, consistency and depth:

- **Daily, short, focused teaching (4× per week, 15 mins)** builds cumulative understanding of quantity, structure and relationships rather than surface procedures.
- **Three weekly manipulatives sessions (small group)** provide close observation and immediate intervention where needed. These sessions are responsive: adults adapt pace, models and prompts so all children secure the concept before moving on.

- **Model–image–symbol progression:** Children experience concepts first with real objects, then with structured images (frames, tracks, bead strings), and finally with numerals and symbols—continually moving back and forth to strengthen understanding.
- **High-value representations:** We prioritise frames (5- and 10-frames), Hungarian number frames, bead strings and number tracks to highlight composition, patterns and conservation.
- **Talk-rich classrooms:** Teachers explicitly model comparison and reasoning language; children “say what they see,” justify, and listen to peers to build shared understanding.
- **Deliberate practice through provision:** Continuous and enhanced provision mirrors the week’s focus so children revisit ideas in meaningful contexts (construction, role-play, outdoor maths, fine-motor stations).
- **Assessment for learning:** Staff use daily observations and the small-group sessions to spot misconceptions, tailor next steps and note who needs additional keep-up practice.

Reception Maths Progression Grid

NCETM Mastering Number	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Focus and Key Learning	<ul style="list-style-type: none"> • Develop subitising and counting skills. • Compare sets; use early mathematical language. • Build number within 5; explore part-whole (partition and recombine). • Use structured/unstructured arrangements (incl. Hungarian number frame). • Notice smaller numbers “hiding” inside larger numbers. • Connect finger patterns to quantities. • Link counting to the “staircase” pattern; understand that anything that can be counted, including actions, can be counted once. • Match to compare; use “whole/parts” language. 	<ul style="list-style-type: none"> • Continue subitising and comparison with increasing sophistication. • Recognise and talk about structured arrangements. • Secure counting patterns and conservation within 5. • Identify equal and unequal groups; begin simple composition with frames. • Talk about patterns seen; justify comparisons using precise language. • Strengthen matching and one-to-one correspondence. 	<ul style="list-style-type: none"> • Continue developing subitising and counting. • Extend composition beyond 5; connect quantities to numerals. • Identify equal/unequal sets; partition into groups. • Explore the structure of 6, 7 and 8. • Understand two equal groups as a “double”. • Continue the staircase pattern and ordering of numbers/quantities. 	<ul style="list-style-type: none"> • Apply and extend subitising skills. • Deepen understanding of 6–8 using frames and structured images. • Explore odd/even in practical contexts. • Build number stories with manipulatives; explain thinking from images. • Use patterns and relationships to compare and reason. 	<ul style="list-style-type: none"> • Consolidate subitising and accurate counting to larger numbers. • Develop a wider range of counting strategies (e.g., count on/back, track jumps). • Explore bonds and composition with 10-frames and number lines. • Compare quantities; describe difference; begin informal calculation. 	<ul style="list-style-type: none"> • Apply counting, matching and comparison confidently. • Use 10-frames, number lines and manipulatives to represent numbers. • Compare and justify using “more than”, “fewer than”, and magnitude (“a lot more than”). • Understand teen numbers as “a ten and some more”. • Strengthen conceptual subitising with larger sets. • Continue exploring part-whole composition and decomposition.