EYFS Mathematics 2026–2027

Reception Mathematics at Heatherlands

Our Approach

At Heatherlands, we aim for children to develop a positive, confident and curious attitude towards mathematics. In Reception, mathematical learning is rooted in practical experiences, rich mathematical talk and opportunities to notice, explore, represent, reason, solve problems and make connections.

White Rose Maths provides the main sequence and progression for mathematics in Reception. Its small-step approach supports adult-led teaching alongside continuous provision, with key mathematical concepts revisited and developed across the year rather than viewed as a linear sequence of learning. White Rose places particular emphasis on developing secure number sense and a deep understanding of how numbers are composed.

We encourage children to notice before we formalise the mathematics, using questions such as *"What do you see?"*, *"What do you notice?"* and *"How do you know?"*. Mathematical talk is central to our approach. Children are supported to represent their thinking, solve problems, reason, make connections and communicate their ideas using increasingly precise mathematical vocabulary. White Rose similarly emphasises mathematical thinking and talk, and its vocabulary progression supports children in articulating their thinking and reasoning.

Practical and meaningful mathematics

Karen Wilding approaches and resources supplement White Rose by providing practical, hands-on opportunities using concrete and natural materials. These experiences support children to deepen their understanding of number sense, subitising, composition and wider mathematical concepts and to apply their learning in meaningful contexts.

Mathematics is embedded throughout our continuous provision and everyday routines. Children encounter mathematical thinking through construction, water and sand, dough, role play, outdoor learning, loose parts, games, snack routines and other purposeful experiences. Provision is enhanced to revisit recent teaching, respond to identified gaps and extend children's interests and mathematical thinking.

This reflects White Rose guidance, which deliberately combines specific adult-led teaching with continuous provision and encourages mathematical assessment within everyday play and routines. Its checkpoints include observing children sorting during tidy-up, comparing capacity in sand and water, and using mathematical language through play.

Concrete, pictorial and abstract understanding

Children are given frequent opportunities to explore mathematical ideas using real objects and manipulatives, before and alongside pictures, representations, marks and symbols. Adults make explicit links between these representations so that children develop conceptual understanding rather than relying on procedures alone. This is consistent with the White Rose concrete–pictorial–abstract approach.

Assessment for learning

Assessment is ongoing, practical and purposeful. Adults use observation, interaction, questioning, children's explanations and their application of mathematics within provision to identify what children understand and what they need next.

White Rose end-of-block checkpoints are used selectively to support professional judgement and provide practical opportunities to revisit key learning. Assessment is not dependent on producing written evidence for every objective or every child.

Where children are not yet keeping pace with the intended learning, this is recorded on the Next Steps Planning working document so that concepts can be revisited through additional modelling, targeted adult interaction, practical experiences, small-group teaching and enhanced provision.

The aim is to gather information that informs teaching — not evidence for its own sake.

Reception Mathematics Progression 2026–2027

Autumn Term

White Rose Maths provides the main sequence and progression for Reception mathematics. Karen Wilding approaches supplement this through practical, hands-on application using concrete and natural materials. Suggested timings identify the main teaching focus; mathematical concepts are revisited, connected and deepened throughout the year through adult-led teaching, continuous provision and everyday experiences.

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
Getting to know you	**2 weeks**	Establish children's mathematical starting points through play, interaction and everyday routines. Notice how children count, recognise quantities, compare, sort, recognise pattern and shape, and use mathematical language. Establish expectations for practical maths, talking about thinking and using resources.	**Baseline through play rather than formal testing.** Use collections of natural objects, construction, snack, outdoor play, songs, number rhymes, tidy-up routines, loose parts, water and sand. Ask **"What do you notice?" "What do you see?" "How do you know?"**	number, count, how many, more, fewer, same, different, match, sort, shape, pattern
Match, sort and compare	**2 weeks**	Match objects and pictures; identify sets; sort objects according to different attributes; explain a sorting rule and find alternative ways to sort; compare amounts. White Rose deliberately progresses from matching to increasingly independent sorting and comparison.	Collections of **shells, pebbles, leaves, conkers, buttons and other loose parts**. Children physically group, move and reorganise collections rather than simply sorting pictures. Encourage more than one possible rule: *"How else could we sort these?"* Use everyday tidy-up and provision as authentic sorting opportunities.	match, same, different, sort, set, group, collection, compare, more, fewer

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
Talk about measure and patterns	**2 weeks**	Compare size, mass and capacity; explore, copy, continue and create simple repeating patterns.	Compare real objects outdoors and in provision. Use balance scales, dough, containers, water, sand and natural materials. Make repeating patterns with stones, leaves, sticks, shells, beads, movements and sounds. Encourage children to **notice the unit of repeat**, not simply copy colours.	big, small, bigger, smaller, heavy, light, full, empty, capacity, pattern, repeat, next
It's me 1, 2, 3	**2 weeks**	Find, subitise and represent 1, 2 and 3; understand one more and one less; explore the composition of these numbers.	Build a deep sense of each number using **fingers, objects, dots, dice patterns, natural collections, movement and different spatial arrangements**. Regularly ask **"How many do you see?" "How do you see it?"** Children make the same quantity in different ways and notice its parts. White Rose stresses seeing quantities in varied arrangements rather than associating a number with one fixed pattern.	one, two, three, number, numeral, subitise, represent, more, less, altogether, part, whole
Circles and triangles	**1 week**	Identify and name circles and triangles; compare their properties; recognise them within the environment; begin to describe position.	Hunt for shapes indoors and outdoors; make shapes with sticks, rope, bodies and loose parts; sort and compare real objects; build pictures and arrangements. Encourage children to **describe what they notice about a shape**, rather than relying only on its name.	circle, triangle, shape, side, straight, curved, corner, position, inside, outside
1, 2, 3, 4, 5	**2 weeks**	Extend secure number sense to 4 and 5. Find, subitise and represent 4 and 5; find	Frequent opportunities to **build, break apart and rebuild quantities** using fingers,	four, five, subitise, represent, one

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
		one more/one less; investigate composition of 4 and 5 and ultimately composition across 1–5.	five-frames, dot arrangements, loose parts and natural collections. Encourage children to say what they notice: *"I can see 5 as 3 and 2."* Include quantities in games, stories, snack and classroom routines so number is experienced in varied contexts.	more, one less, part, whole, altogether, same
Shapes with 4 sides	**1 week**	Identify and name shapes with four sides; combine shapes to make new shapes; recognise shapes within the environment; explore day and night as part of everyday sequencing.	Construct with blocks and loose parts; make and combine squares and rectangles; shape hunts in buildings and outdoor spaces; create shapes with sticks, frames and construction pieces. Discuss **how shapes can be moved and combined**, not simply named.	four sides, square, rectangle, shape, side, corner, straight, combine, day, night

Mathematical talk throughout Autumn

Adults encourage children to notice, represent, explain and make connections.

Useful recurring prompts:

What do you notice? • What do you see? • How do you know? • Can you show me another way? • What is the same? What is different? • What might happen next?

White Rose explicitly identifies mathematical talk as part of its Reception approach, and its vocabulary guidance stresses that accurate vocabulary supports children to articulate their thinking and reason mathematically.

Spring Term

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
Alive in 5	**2 weeks**	Introduce 0; find, subitise and represent quantities 0–5; explore 1 more and 1 less; deepen composition of numbers to 5; develop conceptual subitising.	Use fingers, five-frames, dot patterns, stones, shells and loose parts to make and recognise quantities in different arrangements. Explore zero through real situations: empty plates, no children in an area, nothing left. Encourage children to explain how they see a quantity rather than count every time.	zero, none, number, numeral, subitise, represent, one more, one less, part, whole, altogether
Mass and capacity	**1 week**	Compare mass; explore balance; investigate and compare capacity.	Practical investigation using balance scales, natural objects, dough, containers, water, sand and mud kitchen. Predict before testing. Compare differently shaped containers and encourage children to explain what they notice.	heavy, light, heavier, lighter, balance, mass, capacity, full, empty, nearly full, nearly empty, more, less
Growing 6, 7, 8	**2 weeks**	Find and represent 6, 7 and 8; explore 1 more/1 less and composition; make pairs; begin exploring odd/even structures; find and make doubles; combine two groups; develop conceptual subitising.	Build quantities using natural collections, frames, fingers and objects. Physically pair children/resources to notice whether anything is left over. Make doubles with two hands, two plates, paired collections and symmetrical arrangements. Combine two real groups and discuss the total.	six, seven, eight, pair, odd, even, double, equal, group, combine, altogether, more, less

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
Length, height and time	**2 weeks**	Explore and compare length and height; use appropriate comparative language; talk about time; order and sequence familiar events.	Measure and compare sticks, ribbons, blocks, plants and children using direct comparison and non-standard units. Build towers and structures. Sequence daily routines, stories and real events. Use timers and meaningful language such as *before, after, first, next*.	long, short, longer, shorter, tall, taller, height, length, measure, before, after, first, next, then
Building 9 and 10	**3 weeks**	Find, compare and represent 9 and 10; conceptual subitising to 10; explore 1 more/1 less; develop composition to 10; explore bonds to 10 in two and three parts; make arrangements of 10; find and make doubles; explore even and odd.	Use ten-frames, fingers, bead strings, loose parts and natural collections to reveal structure. Encourage children to see parts within the whole: *"I can see 10 as 6 and 4."* Use games, pairings, arrangements and real sharing contexts to explore doubles, bonds and odd/even structure.	nine, ten, subitise, compose, part, whole, bond, double, odd, even, equal, altogether
Explore 3-D shapes	**2 weeks**	Recognise and name 3-D shapes; notice 2-D shapes within them; select and use 3-D shapes for particular tasks; identify shapes in the environment; recognise, copy and continue increasingly complex patterns.	Prioritise building and handling, not flashcards. Use wooden blocks, boxes, tins, tubes and natural/open-ended construction materials. Explore which shapes roll, stack or build effectively and why. Make patterns using objects, movement, sound and natural materials.	3-D shape, cube, cuboid, cylinder, sphere, cone, face, flat, curved, roll, stack, pattern, repeat

Mathematical talk – Spring

What do you notice? • How do you see it? • How do you know? • Can you show me another way? • What is the same/different? • What could you try? • Can you explain your thinking?

Summer Term

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
To 20 and beyond	**2 weeks**	Build and recognise numbers 10–20; notice the repeating structure of the number system; continue patterns beyond 10; verbally count beyond 20 and explore counting patterns.	Physically build teen numbers as **10 and some more** using ten-frames, bead strings, bundles, natural collections and loose parts. Count meaningful larger collections and use daily routines to count beyond 20. Focus on pattern and structure rather than numeral recognition alone.	ten, eleven… twenty, beyond, count, number, numeral, ten and…, more, pattern
How many now?	**1 week**	Explore adding more and taking away in practical contexts; determine how many were added or removed and how the quantity changed.	Act out stories using children, animals, loose parts and real objects. Hide/add/remove objects and ask children to reason about what changed. Encourage children to represent the story using objects, fingers, drawings or marks.	add, more, take away, less, fewer, altogether, how many, now, before, after
Manipulate, compose and decompose	**2 weeks**	Select shapes for a purpose; rotate and manipulate shapes; explain arrangements; compose and decompose shapes; copy 2-D pictures; identify 2-D shapes within 3-D shapes.	Open-ended construction, tangrams, blocks, magnetic shapes, sticks and loose parts. Encourage children to turn and reposition pieces and explain choices: *"Why did that shape work?"* Make larger shapes/images from smaller components and find different ways to make the same whole.	rotate, turn, shape, arrange, compose, decompose, part, whole, side, corner, face
Sharing and grouping	**2 weeks**	Explore sharing and grouping; make equal groups; identify when sharing is fair/equal; explore odd/even	Share real resources between children, toys and containers; set tables, distribute snack, organise collections and make equal groups. Ask children to check fairness	share, sharing, group, grouping, equal, unequal, fair,

White Rose block	Suggested time	Key learning / progression	Practical application / Karen Wilding approach	Key vocabulary
		through sharing; revisit and build doubles.	rather than simply follow a procedure. Explore what happens when there are leftovers.	pair, odd, even, double
Visualise, build and map	**3 weeks**	Identify units within repeating patterns and devise own rules; replicate constructions; visualise from different viewpoints; describe position; give building instructions; explore mapping; represent familiar places and stories through models, maps and plans.	Build models from photographs or verbal instructions; create obstacle routes and treasure maps; map the classroom, outdoor area or familiar journey; use blocks and loose parts to recreate scenes; give a partner instructions without completing the task for them.	pattern, rule, repeat, position, behind, in front, beside, next to, above, below, map, plan, route, direction
Make connections	**1 week**	Deepen understanding and explore patterns and relationships across previously taught mathematical concepts.	Provide open-ended mathematical problems where children choose their own resources and approaches. Revisit number, pattern, shape, measure, sharing and spatial thinking through games, construction, outdoor learning and children's interests. Ask children to explain connections: *"What do you already know that could help?"*	revisit and apply previously taught vocabulary; explain, notice, pattern, same, different, because
Consolidation	**1 week**	Revisit and secure key learning according to assessment, cohort need and individual next steps. Strengthen fluency, confidence and application rather than introducing new content.	Use the tracker and **Next Steps Planning** to determine priorities. Revisit concepts through games, practical investigation, provision and short targeted teaching. Provide opportunities for children to apply mathematics independently in unfamiliar contexts.	Revisit vocabulary according to identified learning needs.

Mathematical talk – Summer

What do you notice? • How do you see it? • How do you know? • Can you show me another way? • What is the same/different? • What could you try? • Can you explain your thinking?

Assessment in Reception Mathematics

Assessment in Reception mathematics is ongoing, practical and purposeful. Adults assess children through observation, interaction, questioning, mathematical talk and children's application of learning within adult-led teaching, continuous provision and everyday routines.

Assessment takes place continuously as children are taught and observed applying their learning. Termly trackers provide a summary of each child's attainment at the end of Autumn, Spring and Summer, rather than being the only point at which assessment takes place.

Judgements may be recorded at any point when a child demonstrates secure understanding; they do not need to wait until the end of the term.

White Rose end-of-block checkpoints are used selectively to support professional judgement and provide practical opportunities to revisit key learning. Assessment is not dependent on producing written evidence for every objective or every child.

Progress is recorded through a baseline assessment and termly progress trackers. Where children are not yet keeping pace with the intended learning, this is recorded on the class Next Steps Planning working document so that concepts can be revisited through additional modelling, targeted adult interaction, practical experiences, small-group teaching and enhanced provision.

The purpose of assessment is to inform teaching and identify next steps, rather than to generate evidence for its own sake.

Evidence within the class maths folder

- **Baseline assessment**
- **Autumn, Spring and Summer progress trackers**
- **Next Steps Planning**
- **Selected White Rose end-of-block checkpoints**
- **Selected examples of class mathematical learning and application**
- **Individual assessment evidence where specifically useful**

Using the class maths folder

This is a working folder designed to support consistent assessment and responsive teaching without creating unnecessary evidence.

- Use the progression to guide teaching across the year.
- Update the baseline and termly trackers using professional judgement.
- Record children requiring additional support or further opportunities on the Next Steps Planning sheet.

- Revisit and reassess learning through teaching, provision and targeted support.
- Add photographs, observations or individual evidence only where they provide useful additional information.

Reception Maths Baseline – September 2026								
Name	Recites number sequence	Counts objects accurately using 1:1	Knows the last number tells 'how many'	Subitises up to 3	Recognises / matches some numerals to quantities	Compares two small quantities	Matches / sorts objects by an attribute	Notices / continues a simple pattern

Reception Maths – Autumn Progress Tracker

Name	Counts small sets accurately	Subitises quantities to 5	Links numerals 1–5 to quantities	Understands composition of numbers to 5	Finds 1 more / 1 less within 5	Compares quantities using more / fewer / same	Sorts objects and explains how they have sorted them	Copies, continues and creates a simple repeating pattern	Compares size, mass and capacity using mathematical language	Recognises and describes familiar 2-D shapes

Guidance for assessment judgements - Autumn

Counts small sets accurately – uses one-to-one correspondence and knows the final number tells how many.

Subitises quantities to 5 – recognises small quantities without counting, including in different arrangements.

Links numerals 1–5 to quantities – matches written numerals to the correct number of objects.

Composition to 5 – recognises that numbers can be made from smaller parts, e.g. 5 as 3 and 2.

1 more / 1 less within 5 – understands how the quantity changes when one is added or removed.

Compares quantities – identifies more, fewer or the same.

Sorts and explains – sorts by an attribute and can say how or why.

Pattern – copies, continues and creates a simple repeating pattern.

Measure – compares size, mass and capacity using appropriate language.

2-D shape – recognises familiar shapes and talks about features, not just names them.

Reception Maths – Spring Progress Tracker

Name	Counts and represents numbers to 10	Subitises securely to 5 and conceptually within larger quantities	Understands composition of numbers to 10	Finds 1 more / 1 less within 10	Recalls / identifies bonds within 5 and begins bonds to 10	Recognises and makes doubles	Explores odd and even through pairing / sharing	Compares and talks about length, height, mass and capacity	Recognises and uses 3-D shapes purposefully	Copies, continues and creates increasingly complex patterns

Guidance for assessment judgements – Spring

Counts and represents numbers to 10
Children count quantities accurately, recognise numerals and represent numbers in different ways rather than relying on one familiar arrangement.

Subitises securely to 5 and conceptually within larger quantities
They instantly recognise quantities to 5 and begin to see larger amounts as groups or parts — for example, seeing 7 as **5 and 2** rather than counting all seven. White Rose explicitly develops conceptual subitising through Spring.

Composition of numbers to 10
Children understand that numbers can be made from smaller parts and can find different ways to compose the same whole.

1 more / 1 less within 10
Children understand the change in quantity, not simply what numeral comes next in a rote sequence.

Bonds within 5 / beginning bonds to 10
I'd word this carefully because by Spring White Rose explores bonds to 10, but you don't want the tracker to imply that every child should automatically recall every bond to 10 at this point.

Doubles
Recognises and makes equal groups and understands that doubling means twice as many.

Odd and even
Explores the structure practically — making pairs, noticing whether there is one left over, and recognising equal grouping.

Measure
Uses comparative mathematical language meaningfully: *longer, shorter, taller, heavier, lighter, full, empty, more, less*, and begins sequencing familiar events in time.

3-D shape
Recognises familiar 3-D shapes and, importantly, **selects and uses them for a purpose** in building and construction rather than only naming them. White Rose specifically includes using 3-D shapes for tasks and finding them in the environment.

Pattern
Moves beyond a very simple AB pattern towards recognising, copying and creating increasingly complex repeating patterns.

Reception Maths – Summer Progress Tracker

Name	Has a deep understanding of numbers to 10, including composition	Subitises to 5 and conceptually subitises larger quantities	Automatically recalls number bonds to 5 and some to 10	Recognises and uses doubles, odd and even within 10	Counts beyond 20 and notices number patterns	Solves practical addition and subtraction problems within 10	Shares and groups quantities equally	Compares and represents number and quantity in different ways	Manipulates, composes and decomposes shapes	Uses positional language, visualisation and simple maps/plans

Guidance for assessment judgements – Summer

Has a deep understanding of numbers to 10, including composition – understands that each number can be made in different ways from smaller parts and can represent this practically.

Subitises to 5 and conceptually subitises larger quantities – recognises quantities to 5 without counting and begins to see larger quantities in parts, for example seeing 7 as 5 and 2.

Automatically recalls number bonds to 5 and some to 10 – recalls key bonds without needing to count each time, including some double facts.

Recognises and uses doubles, odd and even within 10 – identifies and makes doubles, notices whether quantities can be paired equally, and recognises simple odd/even structure.

Counts beyond 20 and notices number patterns – verbally counts beyond 20, continues number sequences and notices recurring patterns in the number system.

Solves practical addition and subtraction problems within 10 – uses objects, fingers or representations to work out how quantities change when more are added or some are taken away.

Shares and groups quantities equally – shares objects fairly between groups and makes equal groups, noticing when there are items left over.

Compares and represents number and quantity in different ways – compares quantities and represents the same number using objects, fingers, marks, numerals or structured representations.

Manipulates, composes and decomposes shapes – rotates and combines shapes purposefully, makes larger shapes from smaller ones and identifies shapes within other shapes.

Uses positional language, visualisation and simple maps/plans – describes where things are, follows or gives positional instructions, visualises arrangements and represents familiar spaces or journeys through simple maps or models.