

"Our curriculum is designed to help students truly master mathematics, so they can apply their skills in unfamiliar situations whenever needed. Topics from the same content areas have been grouped together to form mastery half terms. More time is spent teaching fundamentals to avoid reteaching in later years."

Summer 2: Reasoning with number	
Skills	<ul style="list-style-type: none"> ● Use indices and surds in numerical expressions ● Solve equations with indices by considering powers and roots ● Use the laws of indices to simplify and manipulate expressions ● Evaluate expressions to the power of 1, 0, and other rational numbers. ● Convert numbers to and from standard form (scientific notation) ● Calculate with numbers in standard form, including problems in context ● Revise skills with percentages, including percentages of amounts and multipliers (revise Year 7 and 8) ● Find percentage change ● Solve original value problems (reverse percentages) ● Calculate with repeated percentage change, including compound interest ● Identify exponential relationships and find values of exponential functions
Knowledge	<ul style="list-style-type: none"> ● Use the language of power, base and root ● Begin to understand the exponential or logarithmic scale ● Reason with the powers of 1 and 0, and negative and fractional powers ● Make links to powers of 10 and the base 10 system ● Understand the uses and structure of standard form (scientific notation) ● Recall that a percent is '1 in a 100' and understand the language of percentage change ● Understand the similarities and differences between percentage change and repeated percentage change, as in growth and decay ● Recognise when a relationship is exponential, and appreciate how the value of an exponential relationship varies, linking to other relationships
Rationale	<p>In this module, learners extend their understanding of the number system into the realm of the logarithmic scale. Gaining an appreciation of exponential relationships and their differences to linear relationships is vital for further scientific study, as well as understanding exponential relationships in everyday life.</p> <p>In the first unit learners explore indices further and extend their understanding to include indices other than positive whole numbers. This is so learners are able to appreciate standard form and use it to describe very large and small numbers.</p> <p>Next, learners explore growth and decay in the context of repeated percentage change. This is linked to exponential relationships more broadly.</p>