



Filey Junior School

Widening Horizons and Reaching Our Potential. Respecting the World and Each Other.
A Happy, Healthy and Positive Learning Community.

Curriculum Pillars Maths		
Fluency	Reasoning	Problem Solving

Curriculum Themes Maths		
Place Value	Calculation	Fraction, Decimals and Percentages
Geometry	Measurement	Statistics

Progression of Pillars			
Fluency			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> Add / Subtract 3-digit numbers – crossing 10 or 100 (subtraction with exchange) Multiply 2-digits by 1-digit Divide 2-digits by 1-digit Multiplication and division by 2, 5, 10, 3, 4, 8 	<ul style="list-style-type: none"> Add / subtract two 4-digit numbers – more than one exchange Multiply 2-digits by 1-digit Divide 2-digits by 1-digit Multiply / divide by 10 /100 Multiply by 1 and 0 	<ul style="list-style-type: none"> + / - whole numbers with more than 4-digits (column method) Multiply 3-digits / 4-digits by 2-digits Divide 4-digits by 1-digit Divide with remainders Decimal number bonds to 	<ul style="list-style-type: none"> Add and subtract whole numbers and decimals Multiply up to 4-digit by 2-digit number Division using factors Long division Common factors/multiples

<ul style="list-style-type: none"> • Number bonds to 20 • Doubles and halves to 20 	<ul style="list-style-type: none"> • Divide by 1 • Multiply and divide by 6, 9, 7, 11, 12 • Number bonds to 100 	<p>10</p> <ul style="list-style-type: none"> • Square numbers to 144 • Length / mass / capacity facts. 	<ul style="list-style-type: none"> • Primes, Squares and cubes • Order of operations
Reasoning			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Give reasons to justify what might come next in a sequence of shapes or numbers. • Test a simple statement using mathematical language. • Explain why an answer is correct or incorrect. 	<ul style="list-style-type: none"> • Spot patterns and form generalisations and rules independently. • Respond to 'What if...?' questions • Justify reasoning using phrases such as 'I know that...' or 'I'm sure of that because...' 	<ul style="list-style-type: none"> • Spot more complex numbers and symbolic patterns. • Provide a logical argument that has a complete chain of reasoning to it. • Use phrases and words such as 'because', 'therefore', 'and so', 'that leads to', 'which means that'. 	<ul style="list-style-type: none"> • Express generalisations algebraically. • Draw conclusions and give justification and proof of reasoning. • Explain, convince and justify methods and solutions using appropriate mathematical language.
Problem Solving			
Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Begin to work systematically. • Find a starting point to a problem, identifying key facts. • Apply knowledge to similar problems. 	<ul style="list-style-type: none"> • Work systematically from the start of the problem. • Rephrase a problem in their own words. • Use previous knowledge to solve problems. 	<ul style="list-style-type: none"> • Develop and apply a systematic approach predicting possibilities from results already obtained. • Make suggestions of ways to tackle problems making connections to previous work. • Represent problems using pictorial representations and equations. 	<ul style="list-style-type: none"> • Consider efficient methods, relating problems to previous experiences. • Break a several-step problem into simpler steps. • Use formulae and symbols to represent problems

