



CAPTAIN WEBB PRIMARY SCHOOL
Maths Curriculum – Key Knowledge and Skills

CONDITIONAL KNOWLEDGE:

Strategies and Problem Solving

Relationships between information, strategies and missing information (reasoning)

Finding All Possibilities	EYFS	KS1	LKS2	UKS2
<p>Knows when to work systematically. Knows when and how to check for repeats. Knows when I have met the criteria with solution/s.</p>	<p>I know when I need to put items and objects, including pictures in order. I know when items are the same.</p>	<p>I know when I need put my answers in order and how to do it. I know what resources to use. I know if I have some answers the same.</p>	<p>I know the best way to record the results. I know if some solutions repeated. I know if I have solved the problem and when there is more than one solution.</p>	<p>I know how to identify are the starting and stopping points. I know when some solutions are repeated and when it affects the outcome. I know when the criteria restrict the number of possibilities.</p>
Logic	EYFS	KS1	LKS2	UKS2
<p>Knows when and how to identify the starting point by generalising or classifying. Knows when the criteria has been met by checking solutions.</p>	<p>I know how to find a starting point. I know what I should do next in a problem.</p>	<p>I know where the starting point is. I know that I must find the best clue. I know what is true and when I can be certain.</p>	<p>I know where the starting point is. I know how to find the best clue. I know when I can place information with certainty. I know when my deduction accurate. I know how to present the solution.</p>	<p>I know where the most useful information is. I know how to find the generalisations and rules. I know that some information can be eliminated. I know the best way present the solution. I know when I have answered the question fully.</p>



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Patterns & Rules	EYFS	KS1	LKS2	UKS2
<p>Knows how to spot the pattern/rule and describe it mathematically. I know how to design a process or arithmetic strategy using the rules.</p>	<p>I know what comes next. I know how to make a repeating pattern.</p>	<p>I know what a repeating pattern is. I know how to find the step size, following a rule. I know how to describe patterns mathematically using signs and symbols.</p>	<p>I know what a repeating pattern is. I know how to follow a rule. I know when the pattern increases or decreases. I know how to apply inverse relationships. I know how to describe rules mathematically using signs and symbols.</p>	<p>I know what a repeating pattern is and can predict sequences. I know how to apply a rule including more than one step. I know when the rule increases or decreases or is incremental. I know how to apply inverse relationships and reverse strategies. I know how to describe rules mathematically using signs and symbols including expressions.</p>
Word Problems	EYFS	KS1	LKS2	UKS2
<p>Read and analyse the problem. Identify the steps. Calculate efficiently. Check the solution.</p>	<p>I know how to listen to the word problem story. I know what the story is about. I know how to find the answer.</p>	<p>I know what the narrative is about and what words tell me about the maths. I know what arithmetic I need to answer a one-step problem – Y1 I know how to answer a two-step problem. – Y2 I know what arithmetic methods are best and what resources I might choose. – Y2 I know when I have answered the question correctly.</p>	<p>I know what the narrative is about and what words identify the operations needed. I know what arithmetic I need to answer a one-step problem, two-step or multi step problem. I know what arithmetic methods are efficient and what to record. I know when I have answered the question correctly and checked the context.</p>	<p>I know what the narrative is about and what words identify the operations and the concepts needed. I know what arithmetic I need to answer a one-step problem, two-step, multi-step problem or complex problem. I know what arithmetic methods are efficient and what to record in sequences. I know when I have answered the question correctly and checked the context.</p>



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Reasoning	EYFS	KS1	LKS2	UKS2
<p>Generalising is about starting with specific cases and becoming less specific.</p> <p>Specialising is about starting with something general and seeing what it tells us about a specific case. It might seem that generalising is therefore more important (or harder) than specialising, but that is not always true.</p>	<p>I know when something is always true.</p> <p>I know how to match a number, an object, or a picture to something that is true.</p>	<p>I know how to say or write the general rule.</p> <p>I know how to match examples that prove the rule.</p>	<p>I know how to say or write the general rule using mathematical terms.</p> <p>I know how to choose examples that prove the rule using technical vocabulary and notation.</p>	<p>I know how to say or write the general rule using mathematical terms.</p> <p>I know how to choose examples that prove the rule from a conjecture or line enquiry.</p>
<p>Models of proof</p> <ul style="list-style-type: none"> • Visually: a constructed model or a diagram • Examples that satisfy the rule: by making a series of statements (at least 3 to prove a truth and 1 to counter example to disprove.) • Algebraically: with an expression 	<p>I know how to select objects or draw graphics to show when something is true.</p> <p>I know when something is not the same, it is not true.</p>	<p>I know how to draw mathematical diagrams or select equipment to prove a generalisation.</p> <p>I know how to write arithmetic statements to prove a generalisation.</p> <p>I know how to write a statement to show when something is not always true or never true.</p>	<p>I know how to construct mathematical diagrams or select equipment to prove a generalisation or offer a reasoned argument.</p> <p>I know how to write 3 arithmetic statements to prove a generalisation to be true.</p> <p>I know how to write a single statement to show when something is not always true or never true.</p>	<p>I know how to construct mathematical diagrams or select equipment to prove a generalisation.</p> <p>I know how to write 3 arithmetic statements to prove a generalisation to be true.</p> <p>I know how to write a single statement to show when something is sometimes true or never true.</p> <p>I know how to write the expression to prove a rule using n to represent any number.</p> <p>I know how to determine the criteria for n.</p>