Gulf English School Term 1 Year 9 Mathematics

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| TOPICS: Percentages, Ratio, Proportion, Algebraic products |

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| Themes: Percentages & the real world, Ratio and the real world, Simplification of algebraic products | Level: Year 9 |
| Objectives: To use: mental methods (& calculator methods) to calculate percentages & percentage increase/decrease; To apply knowledge of percentages to contextual questions involving sales, tax etc; To provide clear solutions to reverse percentage problems; To understand and apply the rules of ratio; To express ratio in the form 1:n and interpret this in the context of map ratios; To assess “best buy” by comparing ratios; To apply knowledge of ratio to direct/inverse proportion; To understand the laws of algebra and how they relate to the laws of number; To categorize algebraic products and use the appropriate method to evaluate them; To assess methods of evaluating algebraic products. | |

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| Focussing Questions | Key Words | |
| * 1. **Percentages** * Key resources: STP Year 9 Chapter 4 Ex 4a - h * What methods are there for finding 20% of $350? * Explain a method for increasing 860km by 12%. * Create a situation involving % increase/decrease where the answer is 240m.   + Assessment: Cumulative quiz   **3-4. Ratio & proportion**   * Key resource: STP Year 9 Chapter 5 Ex 5a – 5g * What is ratio used for? Do the units have an effect on ratio?   + Assessment: Cumulative quiz   1. **Handling data: Probability** * Key resources: STP Book Year 9 Chapter 6 Ex 6a - j * What do we use letters in Maths? * What is the difference between multiplying letters together and multiplying numbers together? * Jenny thinks that (3x – 2)2 = 3x2 + 12x + 4. Do you agree with Jenny?   + Assessment: Cumulative quiz   Assessment: Cumulative test | Percentage  Multiplier  Tax  Allowances  Reverse percentage  Ratio  Simplest form  Inverse  “Best buy”  Direct proportion  Inverse proportion  Algebraic products  Single bracket  Double bracket  “ac” method  Expansion of square brackets  Difference of two squares | Explaining words  My rationale for … is…  The rules of ratio are….  The laws of multiplication are that….  The appropriate degree of accuracy would be… because…  Therefore...  The criteria for… is… |

**TEXT BOOK: STP MATHEMATICS YEAR 9**