**Gulf English School Term 1 Year 8 Mathematics**

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| TOPICS: Standard form, Indices, Estimation, Probability, Fractions and the four operations |

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| Themes: Using correct notation, Understanding probability, Pencil and paper methods for calculating with fractions | Level: Year 8 |
| Objectives: To understand and use; index notation, Standard Form, Laws of indices.  To be able to calculate probabilities and to know and use P(Not A) = 1 – P(A).  To use effective methods for Multiplication & Division of fractions, | |

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| Focussing Questions | Key Words | |
| **1. Introduction/Review of Year 7**   * Key resources: STP Year 8 Revision Ex 1 - 8   **2-3. What is standard form?**   * Key resource: STP Year 8 Chapter 1 , Ex1a to 1j * How can we write 1,000,000,000,000 using less digits? * Why is estimation useful? * Why do we have standard form? * How do we calculate 107 X 102 efficiently?   + Assessment: Topic Test  1. **Probability:**  * Key resources: STP Book Year 8 Chapter 2Ex 2a – 2c * Always / Sometimes / Never: if I pick a card from a pack of playing cards then the probability of picking a club is ¼ * How can we show all outcomes? * If we know the chance of failure, can we calculate the chance of success? * Always / Sometimes / Never: increasing the number of times an experiment is carried out gives an estimated probability that is closer to the theoretical probability   + Assessment: Topic Test   **5-6. Fractions: Multiplication & Division**   * Key resource: STP Book Year 8 Chapter 3 Ex 3a – 3f * You can only multiply fractions if they have the same common denominator. Do you agree? Explain your answer? * Kenny thinks that Do you agree with Kenny? Explain.   + Assessment: Topic Test   Assessment: Cumulative half term test | Standard form,  Indices,  Powers,  Convention,  Notation,  Probability scale,  Theoretical Probability,  Experimental Probability,  Relative Frequency,  Outcomes,  Possibility space,  Sample space,  Improper fraction,  Mixed number,  Reciprocal,  Numerator,  Denominator,  Simplest form,  Equivalent fraction | Explaining words  To convert to standard form you…  Using the laws of indices…  Therefore...  The convention for multiplying fractions is…  The theoretical probability is…  The experimental probability is… |

**TEXT BOOK: STP MATHEMATICS YEAR 8**