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 use rounding to estimate. To use the probability scale. To be able to calculate; probabilities. To know and use P(Not A) = 1 – P(A). To be able to construct and use a Possibility space. To calculate and use Relative frequency. To use effective methods for Multiplication & Division of fractions, Multiplication of mixed numbers, Division of fractions & mixed numbers, Four operations and fractions mixed |

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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?
* What information can we extract from these experiments?
* 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
* Which method is most effective?
* You can only multiply fractions if they have the same common denominator. Do you agree? Explain your answer?
* Kenny thinks that $\frac{6}{10}÷\frac{3}{2}=\frac{2}{5} .$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 wordsTo 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**