Gulf English School Term 1 Year 9 Mathematics

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

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| Themes: Using travel graphs, Estimation and accuracy, Multiplying & dividing fractions, notation and methods for calculation of Probability | Level: Year 9 |
| Objectives: To use a single stage/multistage travel graph to calculate: distance travelled, time taken, average speed. To draw a travel graph. Use formulae to calculate distance, speed and time. To use different levels of accuracy through rounding. To interpret a rounded number as being within a range of possible values. To display inequalities on a number line. To multiply and divide fractions. To use notation for recurring decimals. To Perform the four operations with numbers in standard form. To assess and categorize events as being independent or mutually exclusive. To use tree diagrams to calculate probabilities. To use Venn diagrams to calculate proabability. |

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| Focussing Questions | Key Words |
| * 1. **Travel Graphs: Distance/time**
* Key resources: STP Year 9 Chapter 1. Ex 1a – 1g
* What was happening to the car when the graph is flat?
* What does the steepness of the graph indicate?
* What scale would be appropriate to draw this graph?
* How far did the car travel between point A and point B?
* When during the journey was the car travelling the fastest?
* What units would e most appropriate for this calculation?
	+ Assessment: Topic Test

**3-5. Estimation, Fractions & Decimals*** Key resource: STP Year 9 Chapter 2 , Ex 2a to 2e
* The number of students in the school is 1500 to the nearest 100, what is least/greatest number there could be?
* Convince me that 39 652 rounds to 40 000 to one significant figure
* What is wrong: $\frac{11 × 28.2}{0.54}≈\frac{10 × 30}{0.5}=150$. How can you correct it?
* Since 0.1 = 1/10, what does 0.1111.. equal?
* Tell me an equivalent calculation to ÷1/2
	+ Assessment: Topic Test
	1. **Handling data: Probability**
* Key resources: STP Book Year 9 Chapter 3 Ex 3a –3gc
* If you flip a coin and roll a die at the same time, will getting a head on the coin affect what I get on the die? Explain why?
* What will a Venn diagram look like for mutually exclusive events?
* Using a tree diagram, how can we list the possible outcomes?
* Show me an example of a probability problem that involves adding (multiplying) probabilities
* Convince me that there are eight different outcomes when three coins are flipped together
	+ Assessment: Topic Test

Assessment: Cumulative half term test | Distance, Speed, Time, Axes, Distance/Time graph, Formula triangle, Steepness, Gradient, Rate of Change, Estimation, Significant Figures, Decimal Places, Lower Bound, Upper Bound, Reciprocal, Independent Events, Mutually Exclusive Events, Tree Diagram, Venn Diagram, Intersection, Union,  | Explaining wordsMy rationale for … is…The appropriate degree of accuracy would be… because…Therefore...The criteria for…. is |

**TEXT BOOK: STP MATHEMATICS YEAR 9**