GUIDED NOTES: MODULE 2 KELPER’S KINGDON FVS PHYSICS A

INSTRUCTIONS: These are some of the essential driving questions on each of the lessons you will be learning in this module. On finishing the lesson, you may fill this up as an effective way of summarizing what you learnt in this lesson. If you cannot write the answers in your own words, perhaps you should revisit the lesson again. Use these guided notes to self-evaluate and relearn as necessary.

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| Lesson | Essential Questions | Your notes |
| 2.01 | What is average speed? |  |
|  | How is average speed different from instantaneous speed? |  |
|  | Explain the term "motion is relative " with an example |  |
| 2.02 | How will you solve problems using the speed equation? |  |
| 2.03 | In position time graphs, how will you determine  how far an object traveled in a given time; the average speed of the object in a given time  The speed of the object at a given instant. Draw shapes of graphs to explain |  |
|  | In a speed time graph, how will you determine the acceleration of the object? if it is speeding up or slowing down? the distance traveled by the object in a time interval Draw shapes of graphs to explain |  |
|  | In an acceleration-time graph, how will you determine the acceleration? change in velocity in a time interval? Draw shapes of graphs to explain |  |
|  | How will you interpret ticker tape diagrams or motion maps? Draw dot diagrams to explain |  |
|  | What does the term slope mean? How do you calculate slope? |  |
| 2.04 | What are vectors and scalars? Give examples. |  |
|  | How do you add two vectors in the same direction? |  |
|  | How do you add two vectors in opposite direction? |  |
|  | How do you add two vectors that are perpendicular to each other ? |  |
|  | Explain with an example how the distance traveled in a given time may or may not be equal to the displacement in the same time interval. |  |
| 2.05 | Can you rearrange equations algebraically to solve for the unknown? Write an example. |  |
| 2.06 | How is constant speed not the same as constant velocity? |  |
|  | How is average velocity different from average speed? |  |
| 2.07 | What is acceleration? What is the SI unit? |  |
|  | What can an object be doing if it is accelerating? |  |
|  | What are equations of motion? How can you use them for accelerated motion? |  |
| 2.09 | Discuss shapes of x-t, v-t and a-t graphs for zero, positive and negative acceleration. |  |
| 2.10 | What is free fall motion? |  |
|  | What is terminal velocity? |  |
|  | How does the speed change for an object falling down due to gravity? How does the speed change for an object going up against gravity? |  |
|  | How do you solve for kinematic variables in free fall motion? |  |
|  | Do all objects experience the same acceleration in free fall? Explain. |  |
| 2.11 | What is a projectile? If gravity was not working how would a projectile act? |  |
|  | How is displacement different in the X and Y directions? |  |
|  | How should you approach solving projectile motion problems, give an example |  |