Unit –D1 Overview: MOTION

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| **Main Ideas** | **Essential Questions** |
| 1. An object’s speed depends on how far an object travels in a unit of time.2. Acceleration describes how the velocity of an object is changing.  | * How are distance and displacement different?
* How is an object’s speed calculated?
* What information does a distance-time graph show?
* What is the difference between speed and velocity?
* How are acceleration, time and velocity related?
* How can an object’s acceleration be calculated?
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| **Skills** |
| * Distinguish between distance and displacement.
* Explain the difference between speed and velocity.
* Interpret distance-time graphs.
* Identify how acceleration, time, and velocity are related.
* Explain how positive and negative acceleration affect motion.
* 6. Describe how to calculate the acceleration of an object.
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| **STANDARDS** |
| PSc.1.1.1 * Interpret all motion as relative to a selected reference point. Identify distance and displacement as a scalar-vector pair.
* Describe motion qualitatively and quantitatively in terms of an object’s change of position, distance traveled, and displacement.

PSc.1.1.2 * Compare speed and velocity as a scalar-vector pair. Velocity is a relationship between displacement and time:
* Apply concepts of average speed and average velocity to solve conceptual and quantitative problems.
* Explain acceleration as a relationship between velocity and time: = v a t
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|  **Key Vocabulary** | **Review Resources** |
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| * Distance
* displacement,
* speed,
* average speed
* instantaneous speed,
* velocity
* acceleration
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 | 1. 1-Key Words Worksheet
2. 2-Unit Review Worksheet
3. 3- Ppt – Classification of Matter

4. Class Worksheets |