Chapter 9.1-9.3 Vocab Review NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  | **Definition** | **Diagrams, analogies, questions, or notes** |
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| **Displacement** | Distance from starting point, including direction.Represented by the letter $s.$ |  |
| **Average speed** | Total distance travelled divided by the time taken. |  |
| **Instantaneous speed** | The speed at the exact moment measured.Also known as ‘actual’ speed. |  |
| **Stationary** | Not moving (zero speed). Also known as ‘at rest’. |  |
| **Velocity** | Speed and direction. |  |
| **Acceleration** | How quickly motion is changing (speeding up, slowing down, or changing direction). |  |
| **Force** | Pushing or pulling. |  |
| **Gradient of a graph** | How steep the graph is at that point (its slope).Gradient of a distance graph is velocity.Gradient of a velocity graph is acceleration. |  |
| **Area on a graph** | Fill in the space under the line.Area under a velocity graph is displacement. |  |
| **Inertia** | Resistance to change of motion |  |
| **Net force** | The overall or total force, taking into account that forces in different directions will cancel out. |  |
| **Unbalanced force** | A force that is not being cancelled out by another force. Causes acceleration (change in motion). |  |
| **Newton’s First Law** | Objects stay in their state of motion unless an unbalanced force acts. |  |
| **Newton’s Second Law** | Larger force makes an object accelerate more. Larger mass makes an object accelerate less. |  |
| **Newton’s Third Law** | When an object applies a force, it experiences the same amount of force back. |  |