

**Weekly planner** **Week-13**

**Subject: Physics (0625) Name of the faculty: S.M Tanvir  
Grade-7**

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| **Day: Monday and Tuesday**  **Date: 22/04/24-23/04/24** | **Learning objectives and Outcomes**:   * Define average speed and acceleration. * Calculate average speed and acceleration using appropriate formulas. | **Tools and resources** | ***Special remarks*** |
| **22/04/24**  **Day-01** | **Ice breaking- (5 minutes)**  **Question 1:** "Think of a situation where you had to travel from one place to another. What factors influenced how fast you could get there?"  **Question 2:** "Imagine you're in a race. Would you rather have a high average speed or high acceleration? Why?"  **Development activities-** (30 minutes)  **Introduction to Average Speed (10 minutes):** Define average speed as the total distance traveled divided by the total time taken. Discuss the formula for calculating **average speed:**  **Average Speed = Total Distance/Total Time**  Provide examples and solve problems involving the calculation of average speed.  **Introduction to Acceleration (10 minutes):** Define acceleration as the rate of change of velocity over time. Discuss the formula for calculating acceleration: **Acceleration = Change in Velocity/Time Taken** ​ .Explain the difference between positive acceleration (speeding up) and negative acceleration (slowing down). Provide examples and solve problems involving the calculation of acceleration.  **Practice Session (10 minutes):** Divide students into pairs or small groups. Distribute worksheets with problems related to average speed and acceleration. Encourage students to work together to solve the problems, using calculators and formula sheets as needed. Circulate around the classroom to provide assistance and clarification as necessary.  **Closing activities- (5 minutes)**  Review key concepts of average speed and acceleration. Ask students to share any insights or challenges they encountered during the practice session. Emphasize the importance of understanding these concepts in various real-life situations, such as driving, sports, and physics. | Text Book  Marker  Board  Video clips Worksheets |  |
| **23/04/24**  **Day-02** | **Ice breaking- (5 minutes)**  Begin the lesson with a brief discussion on motion. Ask students: Can you name some types of motion you encounter in your daily life? What do you think a graph of motion might look like?  **Development activities-** (30 minutes)  **Introduction to Speed-Time and Velocity-Time Graphs (10 minutes):** Define speed-time and velocity-time graphs. Explain the difference between speed and velocity. Show examples of each type of graph and discuss the features of each.  **Activity 1: Speed-Time Graphs (15 minutes):** Provide a real-life scenario (e.g., a car accelerating from rest, then maintaining a constant speed, and finally decelerating to a stop). Draw the corresponding speed-time graph on the board. Break students into pairs or small groups. Distribute worksheets with similar scenarios and ask students to sketch the corresponding speed-time graphs. Circulate the classroom to provide assistance and clarification as needed.  **Activity 2: Velocity-Time Graphs (15 minutes):** Introduce a new scenario involving velocity (e.g., a train moving forward at a constant velocity, then accelerating, and finally coming to a stop). Draw the corresponding velocity-time graph on the board. Break students into new pairs or small groups. Distribute worksheets with similar scenarios and ask students to sketch the corresponding velocity-time graphs. Circulate the classroom to provide assistance and clarification as needed.  **Conclusion (5 minutes):** Review key concepts and any challenging problems encountered during the activities. Ask students to summarize the differences between speed-time and velocity-time graphs. Encourage questions and clarify any remaining doubts. |  |  |

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| **Differentiation:** By content / Process/ Product/Environment/Class performance. | **Home work: Questions from page 55.** | **Assessment tools & strategies:** Formative assessment  **Reflection (if any):** |