

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

**Subject: Physics (0625) Name of the faculty: S.M Tanvir  
Grade-9**

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| **Day: Sunday to Thursday**  **Date: 21/04/24 to 25/04/24** | **Learning objectives and Outcomes**:   * Students will be able to understand the concept of electric charge and charged particles, differentiate between types of charges, and solve exam-style questions related to static electricity | **Tools and resources** | ***Special remarks*** |
| **21/04/24**  **Day-01** | **Ice breaking- (5 minutes)**  **Question 1**: "Have you ever experienced getting a shock from touching a doorknob or another person? What do you think causes this phenomenon?"  **Question 2:** "Think about objects around you. Can you name any items that are commonly attracted to each other or repelled from each other? Why do you think this happens?"  **Development activities-** (30 minutes)  **Main Activities (25 minutes): Types of Charge (10 minutes):** Discuss the two types of charge: positive and negative. Use visual aids or demonstrations to illustrate the concept of charging by friction, conduction, and induction. Clarify the concept of conservation of charge. **Charged Particles (10 minutes):** Review the structure of atoms, emphasizing the role of protons, neutrons, and electrons. Explain how the arrangement of electrons determines the charge of an object. Conduct a simple experiment demonstrating the behavior of charged particles using balloons and wool cloth.  **Closing activities- (5 minutes)**  Recap the key concepts of static electricity, charging and discharging, conductors and insulators, and electric fields. Encourage students to ask any remaining questions or share any observations. Assign a small worksheet or reflective writing task for students to summarize their understanding of the lesson. | Text Book  Marker  Board  Video clips Worksheets |  |
| **23/04/24**  **Day-02** | **Introduction (5 minutes**): Begin the lesson by discussing the students' responses to the ice breaking questions. Guide the conversation towards the concept of static electricity, acknowledging any relevant examples they provide.  **Activity: Static Electricity Experiments (15 minutes):** **Experiment 1:** Static Balloon Inflate a balloon and rub it against a piece of cloth. Hold the balloon near small pieces of paper or confetti. Observe how the paper is attracted to the balloon due to static electricity. **Experiment 2:** Static Can or Cup Rub an aluminum can or Styrofoam cup against a piece of cloth. Place the can or cup near a stream of water from a tap. Observe how the flow of water bends towards the can or cup due to static electricity.  **Discussion (5 minutes):** Lead a discussion based on the observations from the experiments. Encourage students to explain the phenomena they witnessed using the concept of static electricity. Ask students to relate the experiments to real-life situations where static electricity might play a role.  **Conclusion (5 minutes):** Summarize the key points covered in the lesson: Definition and formation of static electricity. Examples of static electricity in daily life. Practical applications of static electricity. Encourage students to explore more about static electricity and its applications outside the classroom. |  |  |
| **25/04/24**  **Day-03** | **Ice Breaking Session (5 minutes):**  **Question 1:** "What do you understand by the term 'static electricity'?" Allow students to share their definitions.  **Question 2:** "Can you provide examples of static electricity in everyday life?" Encourage students to think of instances like rubbing a balloon on hair or clothes sticking together.  **Development activities-** (30 minutes)  **Activity 1: Exam-style Question Discussion (15 minutes):** Distribute handouts containing exam-style questions on static electricity. Display a sample question on the board/projector. Break down the question with the class, focusing on understanding key terms and concepts. Encourage students to attempt solving the question individually for a few minutes. Discuss the solution as a class, addressing any misconceptions and clarifying doubts. Repeat steps 2-5 with different questions, gradually increasing the complexity.  **Activity 2: Group Problem Solving (10 minutes):** Divide the class into small groups. Provide each group with a set of exam-style questions on static electricity. Instruct them to work collaboratively to solve the questions within the given time frame. Circulate among the groups, offering guidance and clarification as needed. After the allotted time, have each group present their solutions to the class. Encourage discussion and peer **evaluation.**  **Conclusion and Summary (5 minutes):** Summarize the key concepts covered during the lesson. Emphasize the importance of practicing exam-style questions to reinforce understanding. Encourage students to continue practicing similar questions independently. Address any final questions or concerns from the students. |  |  |

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| **Differentiation:** By content / Process/ Product/Environment/Class performance. | **Home work:**  **Solve Questions 7 and 8 from page 319.** | **Assessment tools & strategies:** Formative assessment  **Reflection (if any):** |