Core Skills Analysis

Science

- Mariam has grasped the concept of adhesive forces, understanding how they cause different substances to stick together.
- She has learned about cohesive forces and their role in keeping similar particles attracted to each other within a substance.
- Mariam can explain how surface tension, capillary action, and viscosity are impacted by adhesive and cohesive forces.
- She has conducted experiments to observe the effects of these forces, enhancing her understanding of intermolecular interactions.

Tips

To encourage further exploration of adhesive and cohesive forces, Mariam can engage in hands-on activities such as creating mixtures with different levels of adhesion to understand variations in stickiness. Watching educational videos or participating in science fairs focused on intermolecular forces can also deepen her knowledge. Additionally, discussing real-life applications of these forces in everyday objects like tape, glue, and water droplets can make the concepts more relatable.

Book Recommendations

- The Mystery of the Periodic Table by Ben Wiker: An engaging book that explores the world of atoms and molecules, connecting to Mariam's understanding of intermolecular forces in an exciting narrative.
- The Magic School Bus and the Science Fair Expedition by Joanna Cole: Join Ms. Frizzle and her class on a science-filled adventure that delves into concepts like adhesion and cohesion in a fun and educational way.
- Janice VanCleave's Chemistry for Every Kid by Janice VanCleave: A hands-on guide with experiments that can further enhance Mariam's understanding of adhesive and cohesive forces through interactive learning.