



Module: Material Structure
Focus: Adhesion & Cohesion
Duration: 43 minute period



- Objectives:**
1. Students will be able to illustrate that a material's performance is connected to its structure.
 2. Students will be able to list and discuss the various types of intermolecular bonding.
 3. Students will develop a working understanding of adhesion and cohesion.

Materials:

- Water
- Pipette (or Dropper)
- Plastic Ruler
- Protractor
- Silicon or Wax

- Procedures:**
1. Review bonding with the class.
 2. Introduce and illustrate the terms "adhesion" and "cohesion."
 3. Students will complete a lab on adhesion and cohesion forces.

Assignment: 1. Complete lab write up.

Assessment: 1. Laboratory Experiments, Classroom Participation, Quizzes & Test.

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Teacher Notes:

After a quick review of yesterday's notes, give the definitions of the terms "adhesion" and "cohesion."

To illustrate the difference between these two terms, have the class perform the following experiment. Have each group place one drop of water at the end of a ruler. As they elevate that end of the ruler, have them observe the behavior of the water drop. Once the drop of water begins to run down the ruler, students are to measure and record the angle of elevation.

They are to repeat the same procedures, placing some silicon spray, or wax, on one end of the ruler before they place a drop of water.

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