the macroscopic view of the universe. However, scientists can also describe chemical events on the level of individual atoms or molecules, which is referred to as the microscopic viewpoint.

Mixtures

A material composed of two or more substances is a mixture. In a mixture, the individual substances maintain their chemical identities. Many mixtures are obvious combinations of two or more substances, such as a mixture of sand and water. Such mixtures are called heterogeneous mixtures. In some mixtures, the components are so intimately combined that they act like a single substance (even though they are not). Mixtures with a consistent composition throughout are called homogeneous mixtures (or solutions). Sugar dissolved in water is an example of a solution. A metal alloy, such as steel, is an example of a solid solution. Air, a mixture of mainly nitrogen and oxygen, is a gaseous solution.

Phases

Another way to classify matter is to describe it as a solid, a liquid, or a gas, which was done in the examples of solutions. These three descriptions, each implying that the matter has certain physical properties, represent the three phases of matter. A solid has a definite shape and a definite volume. Liquids ordinarily have a definite volume but not a definite shape; they take the shape of their containers. Gases have neither a definite shape nor a definite volume, and they expand to fill their containers. We encounter matter in each phase every day; in fact, we regularly encounter water in all three phases: ice (solid), water (liquid), and steam (gas).

(ELABORATE)

G. Finding practical applications of concepts and skills in daily living

Classify some substances found in the kitchen and in the bathroom as pure substances or mixtures; elements or compounds; and homogeneous or heterogeneous mixture. Copy and complete this table on your answer sheet.

Kitchen/Bathroom Substances	Pure Substance or Mixture	Element or Compound	Homogeneous or Heterogeneous

H. Making generalizations and abstractions about the lesson

After studying this lesson, remember the following science concepts:

- Matter can be described with both physical properties and chemical properties.
- Matter can exist in one of three main states: solid, liquid, or gas.
- Matter can be broken down into two categories: pure substances and mixtures. Pure substances are further broken down into elements and compounds. Mixtures are physically combined structures that can be separated back into their original components.
- A chemical substance is composed of one type of atom or molecule.
- A mixture is composed of different types of atoms or molecules that are not chemically bonded.