INTRODUCTION

Modeling is an important method used by chemists that helps in the understanding of matter. In this exercise, metal fasteners (bolts, nuts, and washers) will be used to represent or “model” elements.

IMPORTANT MATTER DEFINITIONS

Element: Consisting of only one kind of atom.
Compounds: Consisting of only one kind of molecule
Mixtures: Two or more substance that are simply in the same container or material.

ALSO: A molecule is two or more different kinds of atoms that are chemically joined.

DIRECTIONS

Examine the contents of the jars carefully as they are passed around the room. Determine an analogy (similarity or comparison) between the contents of the jars (models) and matter, then circle the letter of the jars that best fit the descriptions below.

1. Elements (Atoms only)
   
   A  B  C  D  E  F  G  H  I  J  K

2. Compounds (Atoms or Molecules)
   
   A  B  C  D  E  F  G  H  I  J  K

3. Mixtures (Atoms and/or Molecules)
   
   A  B  C  D  E  F  G  H  I  J  K

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1 Bilash, Borislaw, Gross, George R., and Koob, John K.; A Demo a Day: A Year of Chemical Demonstrations, Flinn Scientific, Inc., P.O. Box 219, Batavia, IL 60510