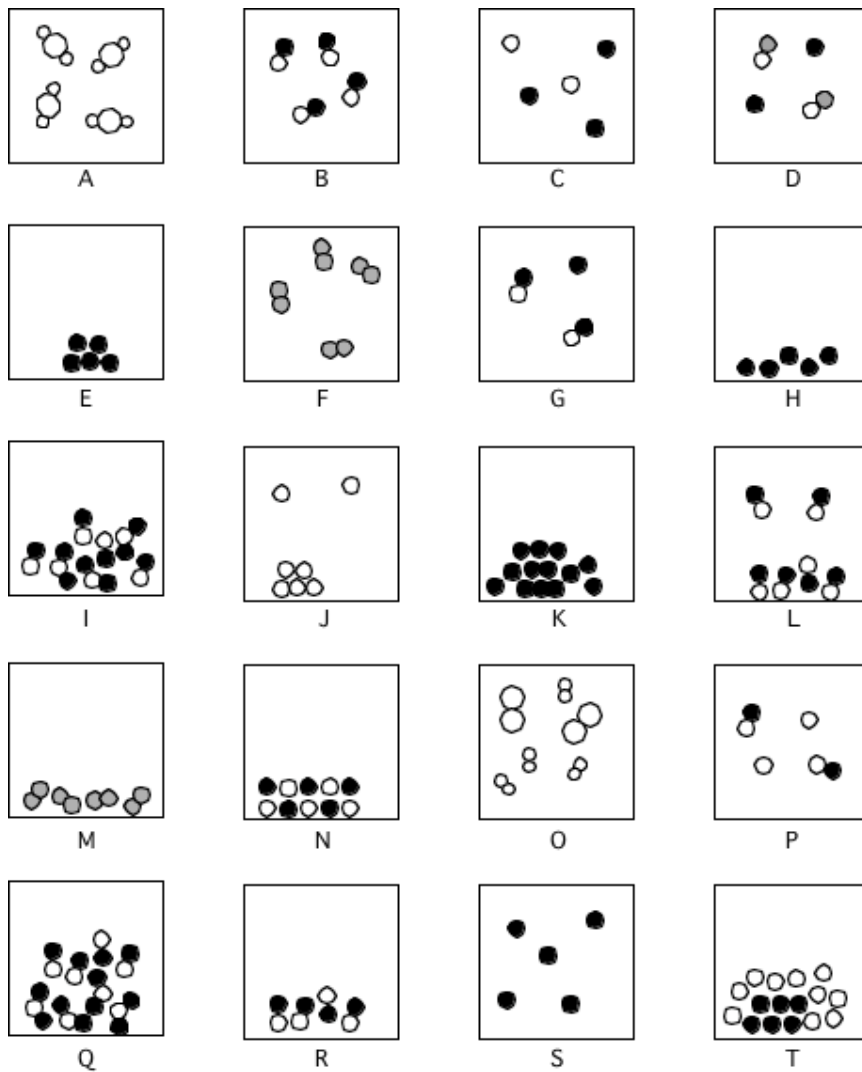


Classification of Matter

1. Each container¹ (A - T) shows a sample of substance(s) as viewed at the atomic level. Look at the containers and come up with some different ways to categorize the contents. For example, if you feel the contents of a subset of the containers could all be grouped, what would be the basis for the group?



Thoughts/ideas/comments:

¹ Inspired by James, Helen J. and Nelson, Samuel L. A Classroom Learning Cycle: Using Diagrams to Classify Matter. Journal of Chemical Education 58, 476, 1981.

2. Select one or more containers from 1 that represent:
a) a chemical change (briefly explain your reasoning for the choice)

b) a physical change (briefly explain your reasoning for the choice)

3. Complete the containers below by representing a solid substance in a liquid, before and after it dissolves. Include a brief narrative supporting your diagrams. Is dissolving a physical or chemical change?



Before



After

4. Describe the contents of four containers (below) that you have not selected for questions 2. Clearly describe the contents of the container such that the description fits that container and no other container.

Container	Elements/Compounds	Phase	Mixture/Pure Substance