

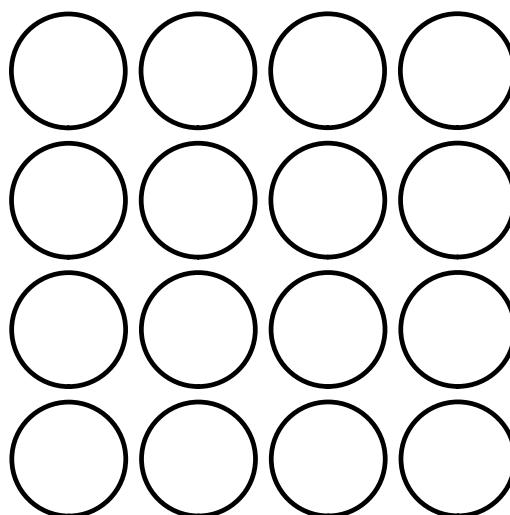
Edit Reset The Particle Theory of Matter ?

- 1 All matter is made up of particles
- 2 All particles in a pure substance are identical (no two different pure substances have the same particles)
- 3 All particles have space between them
- 4 All particles are always moving – more energy (heat) produces more movement
- 5 All particles are attracted to one another

Particles

Let's now use the particle theory to help us explain the differences amongst pure substances, homogeneous substances and heterogeneous substances.

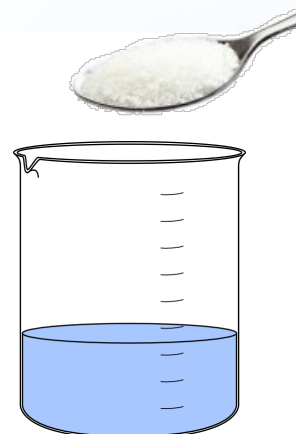
To the right there is a grid made up of several circles. Let's say these circles represent particles. What could we do to change the circles to represent a pure substance, a heterogeneous substance or a homogeneous substance?



Dissolving

We will now perform 2 demonstrations.

1. Add sugar to hot water.
2. Add pepper to hot water.



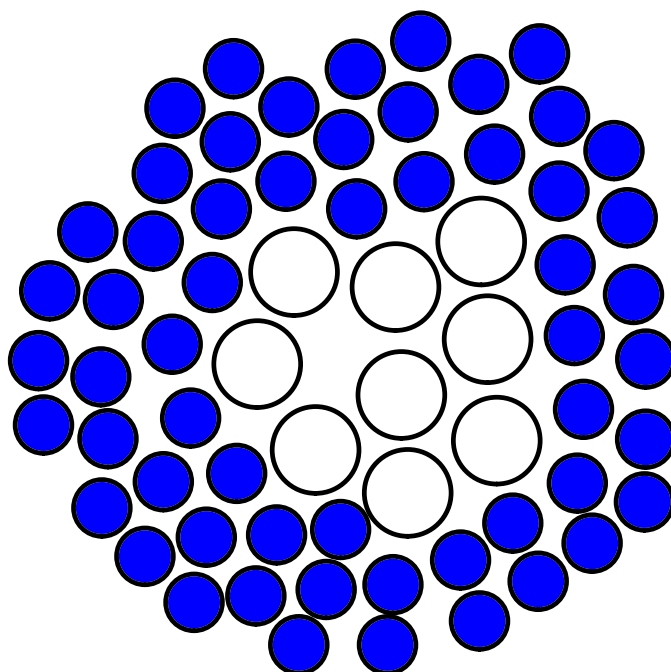
What did you observe?

What was the difference?

Can you use the particle theory to explain why this difference may have occurred?

Dissolving

Let's look at what the particles are doing when you mix sugar into water.



Pure Substances and Mixtures

Any remaining time today may be used to work on incomplete work. You could finish up your filtration questions, or any review questions that are not complete from last class.

