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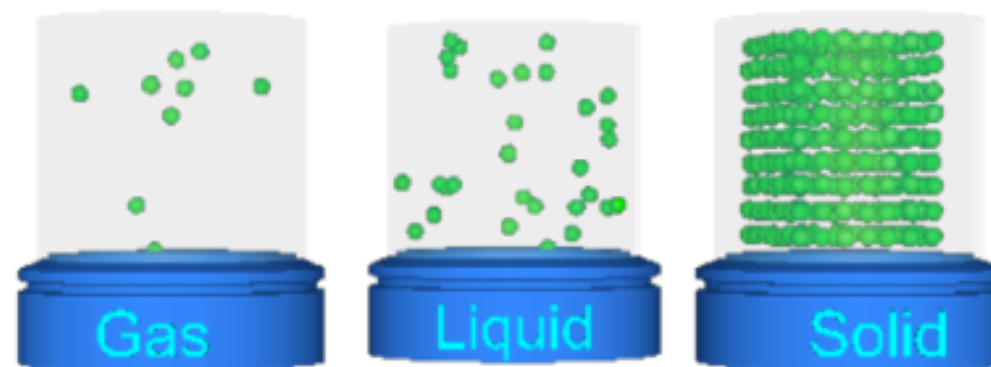


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Mixtures and Solutions

Entrance Slip

1. What is matter?
2. Draw and label 2 WHMIS symbols.
3. What does MSDS stand for?
4. What is the Particle Theory of Matter?





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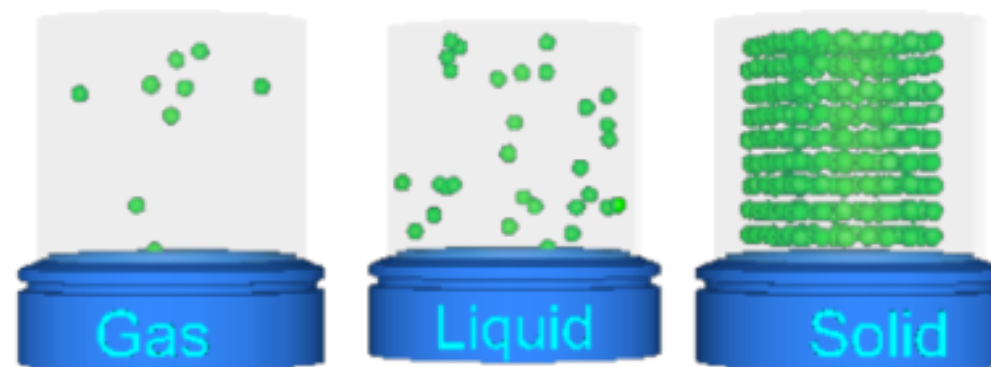


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Mixtures and Solutions

The Particle Theory of Matter

The particle theory of matter helps to explain what scientists have learned about these tiny particles of matter.





Mixtures and Solutions

Mixtures:

Heterogeneous vs. Homogeneous

Heterogeneous mixtures have more than one set of properties.

Homogeneous mixtures have one set of properties.





Mixtures and Solutions

Kool-Aid Mixture!

Heterogeneous or Homogeneous?



Mixtures and Solutions

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Heterogeneous or Homogeneous?





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Mixtures and Solutions

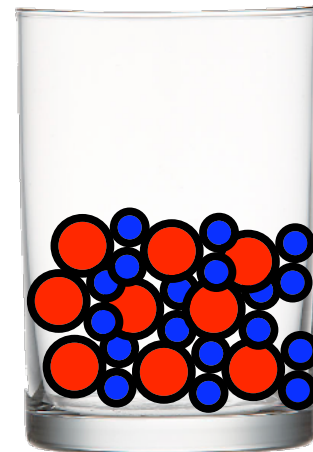
Kool-Aid Mixture!

Heterogeneous or Homogeneous?

After the Kool-Aid has been mixed together, you can only see one set of properties.



This homogeneous mixture is called a **solution**.





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Mixtures and Solutions

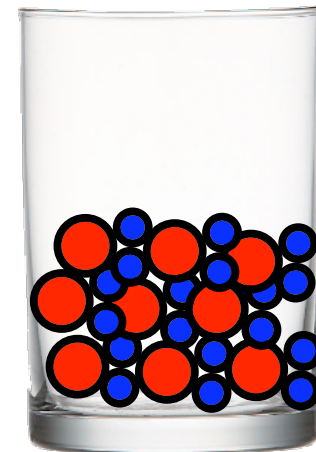
Kool-Aid Mixture!

Heterogeneous or Homogeneous?

Solutions are mixtures that appear the same all over. The different parts are not visible.



Solutions do not "settle out" - they do not separate by themselves.





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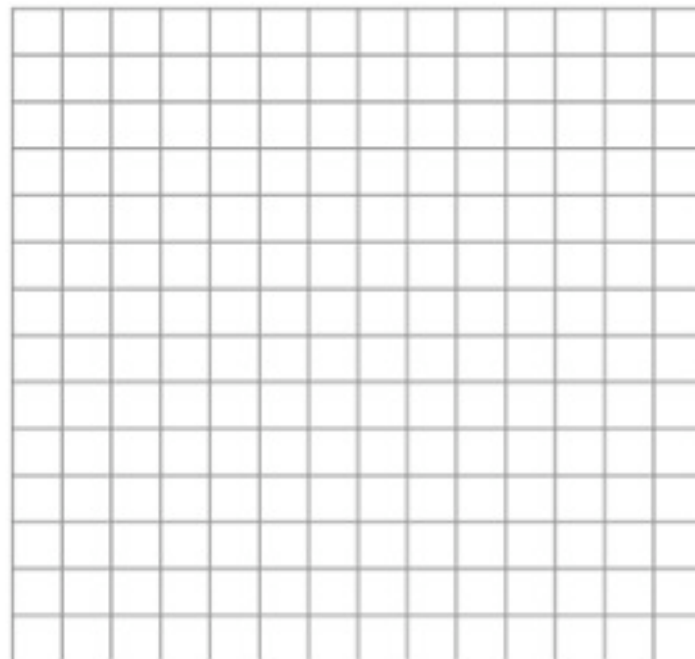


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Mixtures and Solutions

Heterogeneous or Homogeneous?

Using graph paper and two pencil crayons, draw a heterogeneous mixture and a homogeneous mixture.





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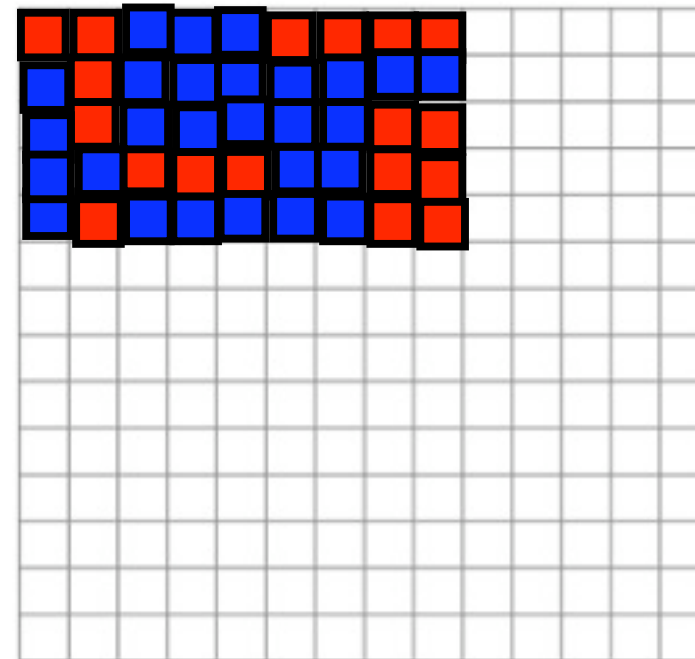
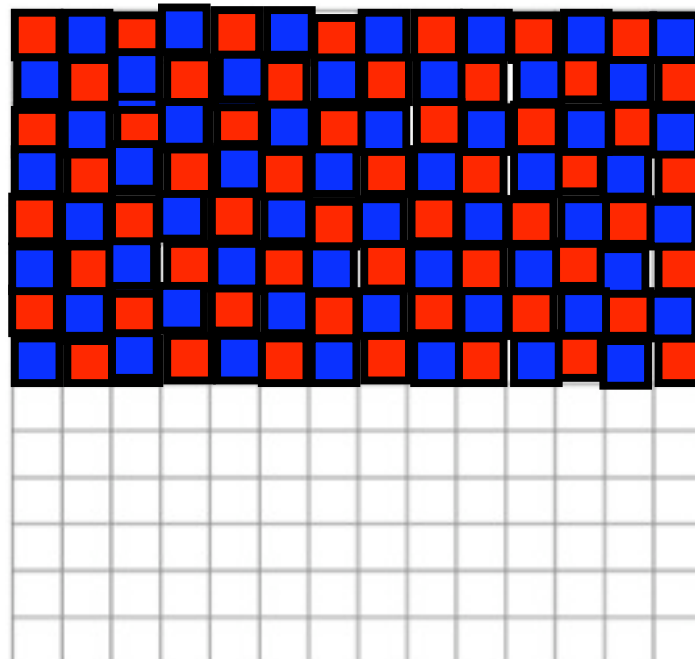


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Mixtures and Solutions

Heterogeneous or Homogeneous?

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Mixtures and Solutions

Solutions



Air -> Nitrogen + Oxygen



Ocean Water ->
Salt + Water



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Mixtures and Solutions

Mechanical Mixtures

A mechanical mixture is a mixture that has parts that are easily seen by the unaided eye.

Unlike Kool-Aid, we can see the different parts in a mechanical mixture.



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Mixtures and Solutions

Mechanical Mixtures





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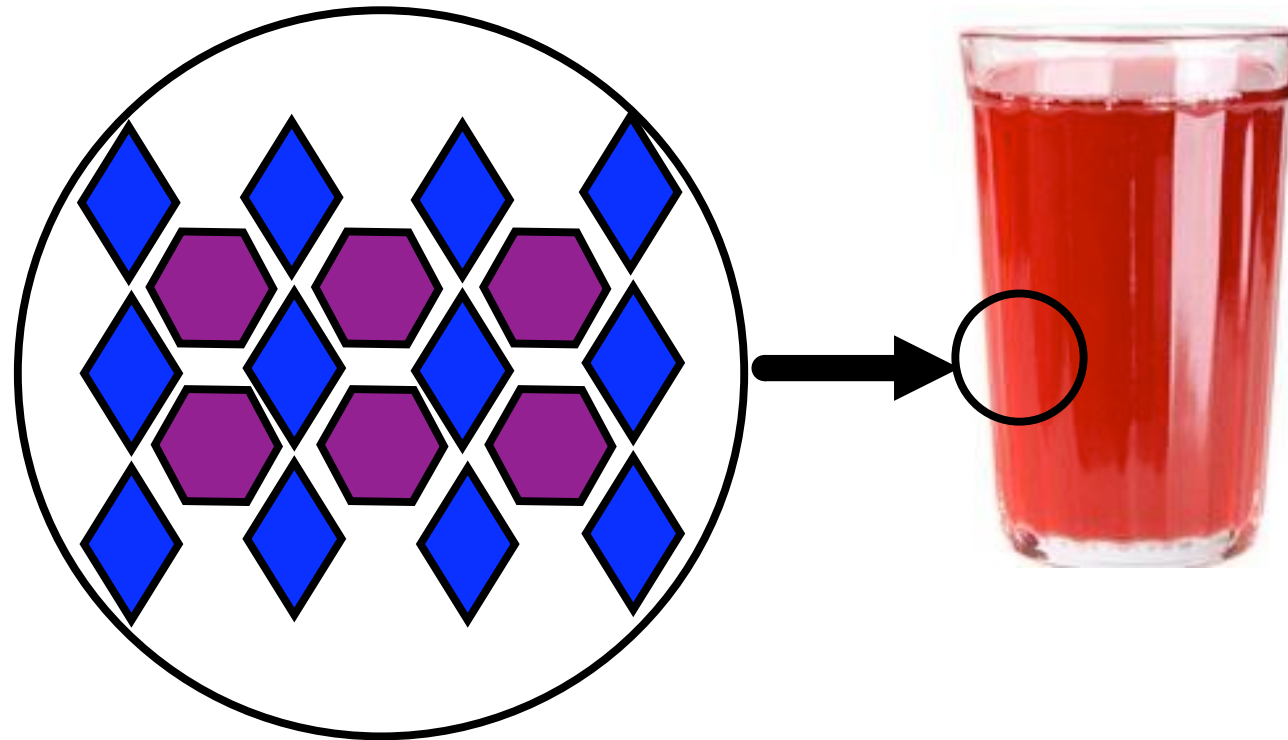


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Mixtures and Solutions

Pure Substances

Homogeneous mixtures, like Kool-Aid appear to have one type of particle but we now know that it is a mixture of sugar and water particles.





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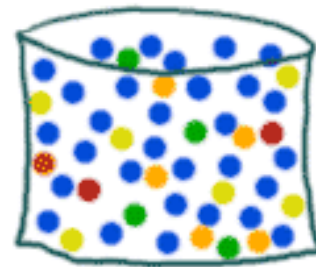
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Mixtures and Solutions

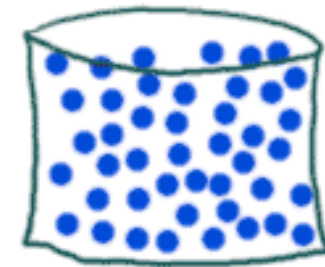
Pure Substance

A substance that is only made up of one type of particle is called a **pure substance**.

A common example is water that has had all of the dissolved minerals removed.



Tap Water



Distilled



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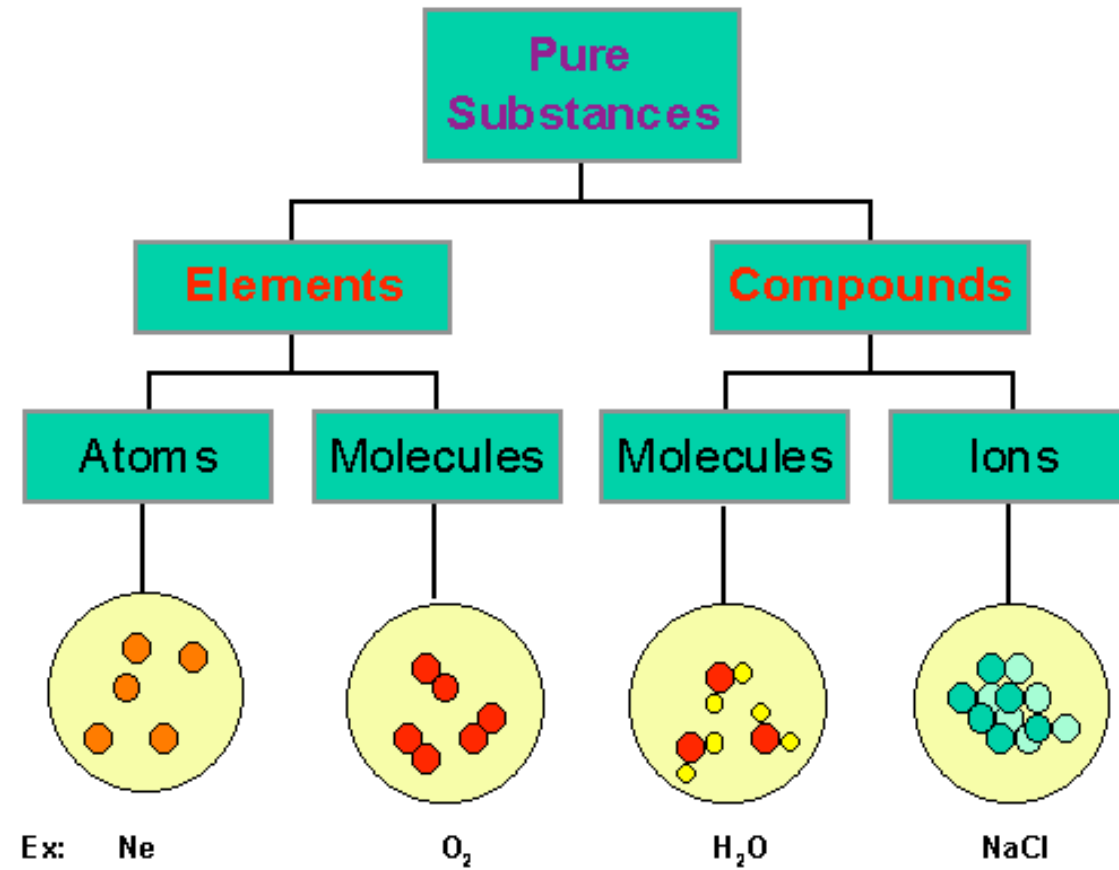


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Mixtures and Solutions



Elements found in the periodic table are pure substances that are made of the exact same particles all over the world.



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Mixtures and Solutions

