Separating Mixtures

Note-taking Guide - Answer Key

---

gravity, size, solid, tool, carbon dioxide, colander, coffee filter, shaken, evaporates, physical, spoon, wand magnet, trapped, hand, separate, sieve, change, attracted, separated, sinks, passes

---

Sean needs a simple tool to separate such a mixture.

Sean uses the colander, which allows the water through but not the spaghetti.

The water and the spaghetti have different physical properties. The water is a liquid and the spaghetti is a solid.

We can separate the water and spaghetti because physical properties of substances do not change in a mixture. Knowing the physical properties of the substances in a mixture helps us figure out how we can separate them.

The two substances separate due to gravity. The chalk powder sinks to the bottom since it is heavier than water.

A coffee filter can be used to separate this mixture completely. When the mixture is poured onto the filter, the solid particles of chalk get trapped in the filter, and the liquid water passes through it effortlessly. The chalk powder regains its dry blue solid particles when the moisture evaporates.

The salt and the rice grains can be easily separated by their size. We use a sieve to separate this mixture.

It would take a whole lot of time for Sean to separate them by hand! It would also be impractical to use a spoon, colander, or coffee filter. How could we quickly separate the substances?

© *2012–2015 Edusmart*

Sean could use a wand magnet! The steel paperclips get attracted to the magnet and stick to it.

Sodas are a mixture of sweet syrup, water, and carbon dioxide gas. The carbon dioxide gas gives the soda its fizz.

When the can is shaken, the gas is separated from the liquid and it escapes into the air. The hissing sound is made by the gas when it is set free!

© 2012–2015 Edusmart