Ellie Ruth 10/3/2023

Seperation of a mixture

Research Question: How can I separate a mixture into its original parts?

Introduction: We are separating sand, iron fillings, rock, and salt from a container.

Procedure: We took the rocks out with our hands and took out iron with a magnet and coffee filter. We took the coffee filter and put the sand and salt in it and put it over the beaker and put water on it. To get the salt to dissolve, we put the salt water on the heating pad.

Observations: We put the magnet in the coffee filter and collected all the iron and it stuck to the filter. We moved the iron to a separate container and removed the magnet from the filter and the iron fell off. We put the sand and salt in the coffee filter and set it on the beaker. When we poured the water, the salt dissolved and went through the filter with the water, leaving the sand by itself. Then we moved the water to the heating pad in a pot and all the water dissolved, removing the salt.

Conclusion: There were different ways we could have separated the mixture into its original parts. We used evaporation, filtration, hand tools, and a magnet. We used hand tools when removing rocks. We used the magnet to remove the iron. We used filtration to remove the sand and the evaporation to remove the salt.
Elements are atoms with the same number or protons or to a substance made of a single type of atom. A compound is a chemical combination of two or more different elements. A molecule is a pure substance made of two or more atoms bonded together. A mixture is made of two or more chemically pure substances that physically combine.