Science periodic table essay

Science, Chemistry



The periodic table has been updated all throughout history. Elements have been around us since the beginning of time. Elements, such as gold and silver, are examples of these elements that have been known for centuries. The periodic table allows us to see the elements in their families so we can understand what properties they have. It also allows us to see the atomic number, atomic mass, and the symbol of the element. The periodic table is a source of knowledge that is still being updated as of this day.

That is why the periodic table is such a valuable resource. In ancient times, the elements gold and silver were discovered. Another element that was known at this time was copper. The Greek philosopher, Aristotle said that all elements were made out of these four " roots. " The philosopher, Plato, renamed the " four roots" earth, fire, water, and air. Although they introduced the concept of elements, they did nothing to advance the nature of the matter, which matter is made of. The age of enlightenment was a big adventure for thescienceworld.

Hennig Brand was the first person recorded to have discovered a new element. He was a German merchant who went bankrupt, while trying to discover the Philosopher's Stone. The Philosopher's stone was a mythical object that was supposed to turn inexpensive base metals into gold. He experimented with distilling human urine until he finally obtained a white substance which he named phosphorous in 1649. Brand did not go to the public with his discovery until another scientist named Robert Boyle rediscovered it and took it to the public.

In 1661, Boyle defined an element has a substance that cannot be broken down by chemical means. Antoine Lavoisier developed the first chemistry https://assignbuster.com/science-periodic-table-essay/

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textbook. This included the elements oxygen, nitrogen, hydrogen, phosphorous, mercury, zinc, and sulfur. Lavoisier's descriptions of the elements only classified elements as metals or non-metals. Johann Dobereiner began to classify the elements in triads. These elements that belong to these triads had properties that were similar to each other. A few of these triads are as follows:

- 1. Chlorine, bromine, and iodine
- 2. Calcium, strontium, and barium
- 3. Sulfur, selenium, and tellurium
- 4. Lithium, sodium, and potassium.

With all these triads, the atomic mass of the second element was almost exactly the average of the atomic weights of the first and third elements. By 1869, 69 elements had been discovered. Alexandre Chancourtois was the first to notice the periodicity of the elements. Similar elements seemed to occur at regular intervals when they were arranged by their atomic mass. He created an early version of the periodic table.

He called it the telluric helix. When the elements were arranged on a cylinder by order of the increasing atomic mass, Chancourtois could tell that the elements with similar properties lined up vertically. He published this work in 1862, but there was little to go on. In 1865, John Newlands classified 56 elements that had been discovered previously into eleven groups based on similar physical properties. Newlands said that many pairs of similar elements existed differed by some multiple of eight in atomic number. Dimitri Mendeleev created the periodic table that we use today. He arranged the elements by their atomic mass and noticed that they lined up with the elements that had similar properties with each other. He also noticed that when they were arranged in this way, the valences lined up as well. When he published his table in 1869, it had many advantages. This table is more widely used in today's time. The discovery of the periodic table is also the discoveries of the elements.

As the elements were discovered, they were added to the periodic table. Since the beginning of time, more elements have been discovered. The most recent was ununpentium. It was discovered in 2011. As anyone can see the periodic table is continuing to grow and develop. It is a child of the elements. As each element is named, the periodic table grows. The periodic table will always be an ongoing process and the updating of it will never end. That is because new elements are discovered every day!