**A Fresh Look at the Periodic Table Notes**

**Define:**

The periodic table needs to be rearranged into a different format then the original one. We are trying to sort different elements in different ways, that maybe are not normally thought of. The new periodic table that we are supposed to create should look different in many ways to the original, we are going to have to be creative with a new format with the same elements, which will not be an easy task.

**Discover:**

What new ways can the periodic table be arranged?

What new groups can we create with the elements?

How can we make a unique table that is different then the original in an interesting way?

How can this help us learn and get a better understanding of the periodic table?

What types of information do we need to research for this project?

**Dream:**

* The periodic tells us information about all the physical and chemical elements and their properties.
* We can arrange based on their level of magnetism, lustre, or alphabetically
* We are going to be working in a pixelated video game called Minecraft, which is mostly cubes, so our periodic will be some sort of square shape
* We can use different colours to decipher which element is in which group depending on how we sort the elements across the table

**Design:**

We are arranging our periodic table by the type of magnetism, there are four types of magnetism which are ferromagnetism, antiferromagnetism, paramagnetism, diamagnetism and non-magnetics. Each group has a different colour of glass put on top of it.

**Deliver:**

We chose to build our periodic table not on paper, a little differently. We created it in a pixelated video game. Since the challenge was to rearrange the periodic table differently, we decided to arrange it into different types of magnetism, which are in five groups. One is non-magnetic which are the elements on the periodic table that are not magnetic in pink, some examples are fluorine and francium. Then there is ferromagnetism in blue which is the strongest type of magnetism since these elements have some unpaired electrons which causes them to have a net magnetic moment. Some examples of ferromagnetic elements are iron and nickel. Another section is antiferromagnetism in yellow which are often transition metals, and normally antiferromagnetism only exists at lower temperatures. An element in this section is chromium. There is also the section of paramagnetism in green which are elements that are slightly attracted by a magnetic field but do not have magnetic properties if the external field is removed, this is caused by the realignment of the electrons due to the external magnetic field. Some examples of paramagnetic elements are lithium and aluminum. The last one is diamagnetism in orange which are elements that are only slightly repelled by a magnetic field, these elements do not have magnetic properties when the magnetic field is removed. In diamagnetic elements the electrons are paired so there is no permanent magnetic net in the atoms. Some examples of these elements are lead and gold.

**Debrief:**

I think our plan was established pretty well because it was a creative way of arranging the periodic table, not something that is common. The one thing that I think we could’ve planned better would be to arrange the elements into some sort of shape, other then that I think the plan turned out pretty well.