**Chemistry Revision: Development of**

Mastery Matrix Points

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| Describe how Mendeleev has arranged the periodic table |

Key Knowledge

PERIODIC TABLE BEFORE MENDELEEV:

The periodic table was arrange in order of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and some elements were \_\_\_\_\_\_\_\_\_\_\_.

The properties were not the same in the \_\_\_\_\_\_\_\_\_\_.

MENDELEEV’S CHANGES:

1.

1.

This meant that the elements in the same group had similar \_\_\_\_\_\_\_.

Later the discovery of \_\_\_\_\_\_\_\_\_\_ explained why the order of atomic weight had not worked properly.

MODERN PERIODIC TABLE:

In the periodic table, the elements are arranged in order of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Periods are the \_\_\_\_\_ of the periodic table, which show that the properties repeat. Elements in the same period have the same number of \_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_.

Groups are the \_\_\_\_\_\_\_\_\_ of the periodic table, which have similar properties within them. Elements in the same group have the same number of \_\_\_\_\_\_ in their outer shell.

**Periodic Table**

Understanding and Explaining

1. Explain why elements in the same groups did not have similar properties before Mendeleev’s changes to the periodic table.
2. Describe and explain Mendeleev’s contribution to the modern periodic table.
3. Describe what has been added to the periodic table since Mendeleev made his changes.
4. Sulfur and sodium are in the same period of the periodic table. Suggest one similarity and one difference about their electronic structure.
5. Lithium and sodium are in the same group of the periodic table. Suggest one similarity and one difference about their electronic structure.