Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_

**Secret Agent Periodicity**

**Introduction:**

**Purpose:** To become familiar with the organization of the periodic table.

**Safety:**

**Make a list of all safety procedures related to this lab.**

**Materials:**

|  |  |  |  |
| --- | --- | --- | --- |
| Secret Agents  Scissors | Large Paper  Glue |  |  |
|  |  |

**Procedure:**

1. Cut out the secret agents.
2. Arrange the agents into columns and rows.
3. When you have settled upon an arrangement, glue the squares onto a larger sheet of paper.
4. Sketch the missing secret agent and answer the questions.

**Clues:**

* **Group the agents by similar characteristics.**
* **Each row has something in common.**
* **Each Secret Agent is different from every other one in two of the characteristics.**
* **You will have three rows when you are finished.**
* **The rows do not have the same number of Secret Agents**
* **The goal is that all members of a row have something in common and all members of a column have something in common.**

**Questions:**

**Copy and complete the following questions in your lab notebook.**

1. In what two ways are all the secret agents different?
2. What do the agents in a row have in common?
3. What do the agents in a column have in common?
4. From questions 2 and 3 above, what are these analogous to on the periodic table?
5. What do the elements in a family on the periodic table have in common?
6. How is the modern periodic table arranged?
7. Define periodicity and explain how ti relates to the secret agents.
8. Sketch the missing Secret Agent!