Parts of the Atom Worksheet

**Fill in the Blank**

**A. Complete the sentences with the words below. Some words may be used more than once.**

outside empty space neutrons

protons tightly atoms

larger nucleus electrons

smaller

1. All matter is many of tiny particles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. The centre part of an atoms is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. A nucleus is made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

4. Electrons are found \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the nucleus.

5. Electrons spin around the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. A nucleus is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ packed.

7. There is mostly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between electrons.

8. Protons and neutrons are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than electrons

9. Electrons are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ than protons or neutrons.

10. Different kinds of atoms have different numbers of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**B.** Some words may be used more than once.

same number protons neutrons

balance positive no

negative electrons

1. The main parts of an atom are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

2. The nucleus is made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ spin around the nucleus.

4. Electrons have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge.

5. Neutrons have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge.

6. Protons have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge.

7. A nucleus has an overall \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ charge.

8. An atom has the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of protons and electrons.

9. The plus and minus charges of an atom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other.

10. The atomic number tells us how many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ an atom has.

11. The mass number minus the atomic number gives the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Protons, Neutrons and Electrons**

Complete the following charts:

|  |  |  |  |
| --- | --- | --- | --- |
| **Part of the Atom** | **Location** | **Charge** | **Mass** |
| **Electron** |  |  |  |
| **Neutron** |  |  |  |
| **Proton** |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Element** | **Symbol** | **Atomic Number** | **Atomic Mass** | **Mass**  **Number** | **# of**  **Protons** | **# of**  **Electrons** | **# of**  **Neutrons** |
| argon |  |  |  |  |  |  |  |
|  |  | 25 |  |  |  |  |  |
|  |  |  |  |  |  | 40 |  |
|  |  |  |  |  | 27 |  |  |
| gold |  |  |  |  |  |  |  |
|  |  | 33 |  |  |  |  |  |
|  |  |  |  | 112 |  |  |  |
|  |  |  |  |  |  | 50 |  |
|  |  |  |  |  | 74 |  |  |
| iron |  |  |  |  |  |  |  |
|  |  | 30 |  |  |  |  |  |
|  |  |  |  |  | 46 |  |  |
| radon |  |  |  |  |  |  |  |
| iodine |  |  |  |  |  |  |  |
|  |  |  |  |  | 38 |  |  |
|  |  | 80 |  |  |  |  |  |
|  |  |  |  |  | 92 |  |  |