**Name: Period:**

**PSB Unit 1 – Matter**

**Masses of Atoms Worksheet**

**Directions:** *Answer the following questions on the lines provided.*

**1.** What are isotopes?

**2.** How do Boron-10 and Boron-11 differ?

**3.** What is the average atomic mass of an element?

**4.** Compare and contrast the atomic structure of the chlorine-35 and chlorine-37 isotopes.

**5.** Suppose that a newly discovered element called centium has three isotopes that occur in
nature. These are centium-200, centium-203, and centium-209. Assume that these isotopes
occur in equal amounts in nature. What will be the average atomic mass of this element?

Fill in the following chart:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ELEMENT | SYMBOL | ATOMIC NUMBER | PROTONS | ELECTRONS | NEUTRONS | ATOMIC MASS # |
| Potassium |  |  |  |  |  |  |
| Zinc |  |  |  |  |  |  |
|  | I |  |  |  |  |  |
|  |  | 2 |  |  |  |  |
|  |  |  | 82 |  |  |  |
|  |  |  |  | 10 |  |  |
|  |  |  |  |  | 120 |  |
|  |  |  |  |  |  | 238 |
| Cobalt |  |  |  |  |  |  |
|  | Be |  |  |  |  |  |
|  |  | 14 |  |  |  |  |
|  |  |  | 28 |  |  |  |
|  |  |  |  | 79 |  |  |
|  |  |  |  |  | 10 |  |
|  |  |  |  |  |  | 56 |