Naming Atoms – Elements and Isotopes

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| **Pre-activity Q’s: - What is the isotope name for the following atoms** |
| 1. 6 protons, 6 neutrons
 | 1. 8 protons, 8 neutrons
 | 1. 2 protons, 4 neutrons
 |
| 1. 18 protons, 20 neutrons
 | 1. 15 protons, 16 neutrons
 | 1. 30 protons, 36 neutrons
 |

**Procedure:**

1. At the lab benches are 18 bags labeled A-R. Each bag contains various amounts of black and blue marbles. The black marbles represent protons, the blue marbles represent neutrons.
2. For each bag, record the number of protons and neutrons in the Data Table.
3. Using these values and the periodic table, deduce the information needed to complete the Data Table.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bag** | **# of Protons** | **# of Neutrons** | **Mass Number** | **Isotope Name** |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| E |  |  |  |  |
| F |  |  |  |  |
| **Bag** | **# of Protons** | **# of Neutrons** | **Mass Number** | **Isotope Name** |
| G |  |  |  |  |
| H |  |  |  |  |
| I |  |  |  |  |
| J |  |  |  |  |
| K |  |  |  |  |
| L |  |  |  |  |
| **Bag** | **# of Protons** | **# of Neutrons** | **Mass Number** | **Isotope Name** |
| M |  |  |  |  |
| N |  |  |  |  |
| O |  |  |  |  |
| P |  |  |  |  |
| Q |  |  |  |  |
| R |  |  |  |  |