

Name: _____

Date: _____

What information is on the Periodic Table?*Homework*

Each element has its own box on the *Periodic Table* with a lot of information in it. There is a key to tell you what information in each box means in our notes. Although Periodic Tables differ, most have the same basic information. Starting from the top of the box, the information on the key to the right is as follows: [1] atomic mass - weighted average of the mass of the common isotopes of the element; [2] common oxidation states - tells number of electrons lost, gained, or shared during bonding; [3] symbol - one, two, or three letters related to the name with the **first letter capitalized** and the other letters lower case. The three letter symbols are systematic names that represent the atomic numbers of unnamed elements; [4] atomic number - number of protons; and [5] electron configuration - arrangement of electrons in energy levels.

| KEY | | |
|---------------------------|----------|----------|
| Atomic Mass → | 12.0111 | -4 |
| Common Oxidation States → | | +2 +4 |
| Symbol → | C | |
| Atomic Number → | 6 | |
| Electron Configuration → | 2-4 | |

Answer the questions below by referring to your Periodic Table of Elements and to the key above (or in your notes).

1. How many protons do each of the following elements have?

(a) calcium _____

(d) sulfur _____

(b) sodium _____

(e) nitrogen _____

(c) iodine _____

(f) mercury _____

2. What is the mass of the most common isotope of each of the following elements?

(a) phosphorus _____

(d) oxygen _____

(b) potassium _____

(e) lead _____

(c) barium _____

(f) uranium _____

3. How many occupied principal energy levels do elements in period 4 have? _____

4. How many valence electrons do the elements in group 17 have? _____

5. What are the oxidation states for:

1. Elements in group 1: _____

2. Elements in group 2: _____

6. Which groups have elements with more than one positive oxidation state? _____

7. Which groups have elements with both positive and negative oxidation states? _____
