

Lesson 1-3B: Blocks of the Periodic Table Handout

Instructions:

- a) Go to the following website:
<https://www.learner.org/series/interactive-the-periodic-table/>
- b) Answer the questions below
- c) When you are finished save this file and check your answers based on the information in the next learning activity.

1. The interactive periodic table lists 4 different blocks, list them below:

- a)
- b)
- c)
- d)

2. Select 2 elements from **each** block and write out their atomic symbol, atomic number and electron configurations use the example below to guide you. Remember to follow the Aufbau Principle when drawing the electron configurations. Refer to lesson 1-3A if you need a refresher on Aufbau Diagrams. You may fill out the table by hand or in word. The first example for the s-block is completed for you.

| Block | Atomic Symbol | Atomic # | Electron Configuration |
|---------|---------------|----------|------------------------|
| s block | Na | 11 | $1s^2 2s^2 3p^6 3s^1$ |
| s block | | | |

| Block | Atomic Symbol | Atomic # | Electron Configuration |
|---------|---------------|----------|------------------------|
| p block | | | |
| p block | | | |

| Block | Atomic Symbol | Atomic # | Electron Configuration |
|---------|---------------|----------|------------------------|
| d block | | | |
| d block | | | |

| Block | Atomic Symbol | Atomic # | Electron Configuration |
|---------|---------------|----------|------------------------|
| f block | | | |
| f block | | | |

3. What characteristic do elements in the same block share? (hint look at the electron configuration)

4. Click on the box "Element Types" in the lower left corner of the periodic table. List the type of elements in each of the blocks, the first type is filled in for you.

| | Element Type | Element Type | Element Type | Element Type | Element Type |
|----------------|--------------|--------------|--------------|--------------|--------------|
| s-block | Non Metals | | | | |
| p-block | | | | | |
| d-block | | | | | |
| f-block | | | | | |

5) Click on the box marked "Electronegativity" in the lower left corner. Which block has the most elements with high electronegativity values? Which block has the most elements with low electronegativity values?

High:

Low:

6) Click on the box marked "Melting Points". Which block has the most elements with high melting points? Which block has the most elements with low melting points?

High:

Low:

7) Click on the box marked "Boiling Points". Which blocks have the most elements with high boiling? Which block has the most elements with low boiling points?

High: a)

b)

Low: