

Name: _____
Period: _____ Date: _____

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Worksheet: Periodic Table Puzzles

Fictitious symbols are used for the first 18 elements in the periodic table. Use the clues below to write the fictitious symbol in the appropriate spot on the periodic table provided. Symbols for real elements **do not** represent those elements.

HINT: You do not have to complete each clue in order.

Clues:

1. **U** and **J** are alkali metals. **J** has more energy levels.
2. **T** has 4 valence electrons on the 3rd energy level.
3. **M** is a metal in period 3 with 2 valence electrons.
4. **X** has one proton in its nucleus.
5. **Q** has 2 energy levels, is a nonmetal, and is a solid at room temperature.
6. **L** is a noble gas that doesn't have 8 valence electrons.
7. **Z** and **Y** are members of the nitrogen family. **Y** is a gas at room temperature.
8. **D** has an ending electron distribution of s^2p^5 . **R** has an ending electron distribution of s^2 .
9. **G** has 6 valence electrons.
10. **V** and **W** have full outer energy levels. **V** has 3 energy levels.
11. **A** atoms have 3 valence electrons and **E** atoms have 6 valence electrons. Both are in the second period.
12. **K** has one fewer total electrons than **V**.
13. **I** has 3 valence electrons on the third energy level.

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metals. The metalloids (i.e. semi-conductors) are elements that have properties midway between metals and non-metals. The metalloids are: B, Si, Ge, As, Sb, Te, Po, At. Identify the metalloids by drawing diagonal lines in these boxes. Notice that each group (column) in the periodic table is identified at the top with a number and/or letter. Here