

Name:

Date:

Period:

### Periodic Table Puzzle

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.

#### HINTS:

- You do not have to complete each clue in order
- Valence electrons (outermost electrons) are equal to the A group number. (1A = 1 v.e. 5A = 5 v.e.)
- The higher the period, the more energy levels an element has. Period 1 = 1 energy level, Period 2 = 2 energy levels, Period 3 = 3 energy levels etc.

1A	2A	3A	4A	5A	6A	7A	8A
1							18
	2	13	14	15	16	17	

- Clue 1: U and J are alkali metals. J has more energy levels.
- Clue 2: T has 4 valence electrons and 3 energy levels.
- Clue 3: M is a metal in period 3 with 2 valence electrons.
- Clue 4: X has one proton in its nucleus.
- Clue 5: Q has 2 energy levels, is a nonmetal, and is a solid at room temperature.
- Clue 6: L is the noble gas with the lowest mass.
- Clue 7: Z and Y are members of the nitrogen family. Y is a gas at room temperature.
- Clue 8: D is a halogen. R is an alkaline earth metal.
- Clue 9: G has 6 valence electrons.
- Clue 10: V and W are monatomic, unreactive gases. V has 3 energy levels.
- Clue 11: A atoms have 3 valence electrons and E atoms have 6 valence electrons. Both are in the second period.
- Clue 12: K atoms are larger than D atoms.
- Clue 13: I is in group 13, period 3.