Periodic Table Manipulatives

1. Print out the file.
2. Print the file with the element names (Periodic Table Labels.doc) on return address labels.
3. Label the back of each element card then laminate the sheet.
4. Cut the cards apart. Use them for the bingo game and to make atomic diagrams.

6 2 4 **C**	7 2 5 **N**	8 2 6 **O**
3 2 1 **Li** **6.941**	4 2 2 **Be** **9.0122**	11 2 8 1 **Na** **22.9898**
21 2 8 8 2 **Sc** **44.956**	22 2 8 10 2 **Ti** **47.88**	23 2 8 11 2 **V** **50.942**
2 2 **He** **4.0028**	10 2 8 **Ne** **20.179**	18 2 8 8 **Ar** **30.948**

Key: Non-metals = green; Transition elements = blue; Metals = red; Noble gases = violet.

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Labels for Chemical Elements and Compounds

Directions: Print on address labels. Put the label with the formula on the back (blank side) of an old business card, and its name on the front. Laminate cards if you wish. Use as flash cards or with the Manipulatives shown below.

Chemistry Compounds 1	Use with Ion Manipulatives and	Compound Bingo Set 1
KCl	potassium chloride	NaCl
sodium chloride (salt)	KOH	potassium hydroxide

Element Labels	For flash cards, put symbol on the front of an old business card and the name on the back.	Li
lithium	Be	beryllium
Na	sodium	Mg

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Positive and Negative Ion Manipulatives

Directions: Print on tagboard: one color for the positive ions and another for negative. Laminate and cut the pieces apart. Add more ions if you wish.

Na^{+1}	Na^{+1}	Na^{+1}	Na^{+1}	Na^{+1}	Na^{+1}
K^{+1}	K^{+1}	K^{+1}	K^{+1}	K^{+1}	K^{+1}

SO_4^{-2}	SO_4^{-2}	SO_4^{-2}	SO_4^{-2}	SO_4^{-2}
CO_3^{-2}	CO_3^{-2}	CO_3^{-2}	CO_3^{-2}	CO_3^{-2}

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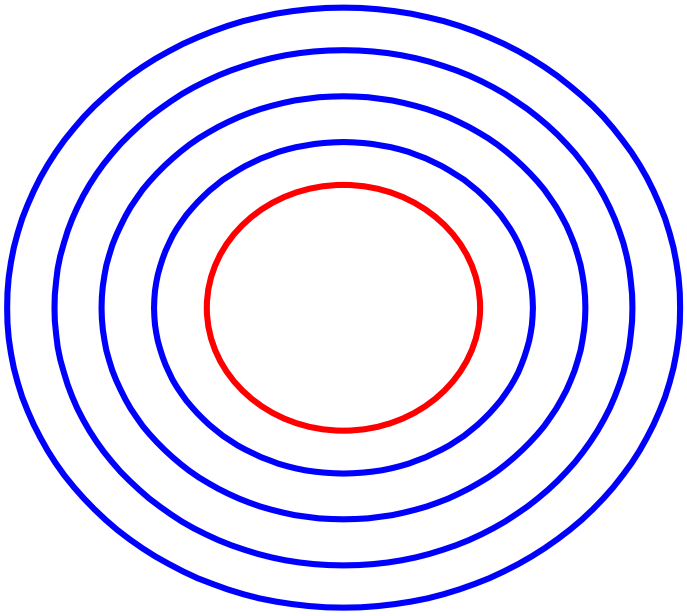
Atom Diagram

1. Print one copy of the Atom Diagram for each student. Heavy paper or tagboard is recommended for durability.
2. Laminate the sheets.
3. (Optional) Attach a small plastic cup (individual serving fruit container) to the middle of the diagram to serve as the nucleus.
4. Use small balls (from a craft store) or circles of different colors to represent protons, neutrons, and electrons.
5. The number of protons and the number of neutrons are equal. (The number of protons is equal to the atomic number.) Place them in the nucleus.
6. The number of electrons in each ring is shown in the right hand column of the Periodic Table manipulative for each element. Distribute the electrons evenly around each ring except the last.
7. The last ring will have one or more empty spaces (except for the noble gases).



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