

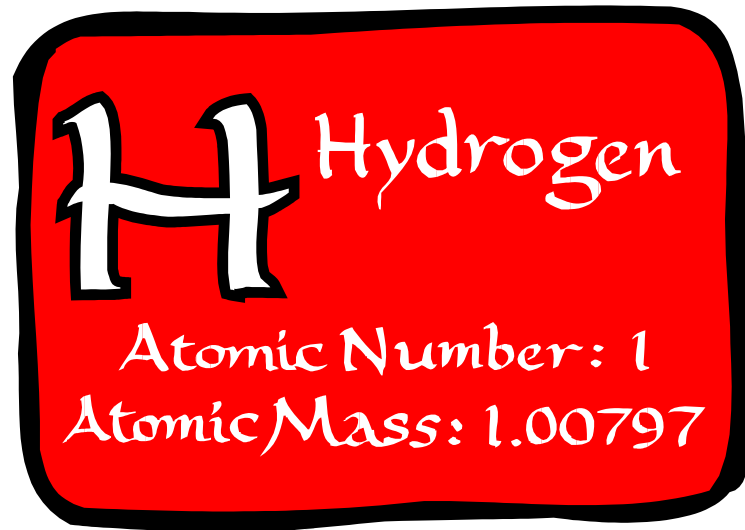
Periodic Table Study Guide

How to Draw Lewis Structures

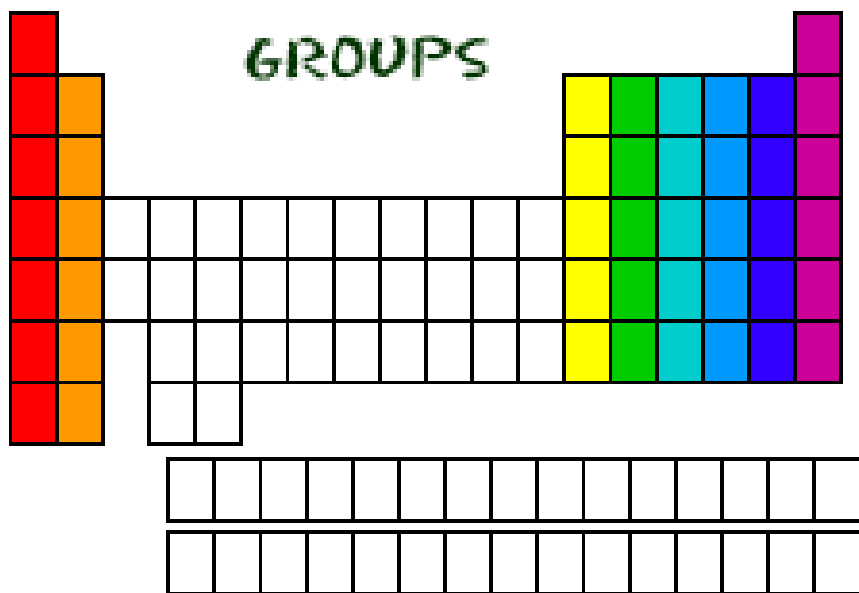
5th Grade Science
Mrs. LaRosa

Lewis Structures

- 1) Find your element on the periodic table.
- 2) Determine the number of valence electrons.
- 3) This is how many electrons you will draw.

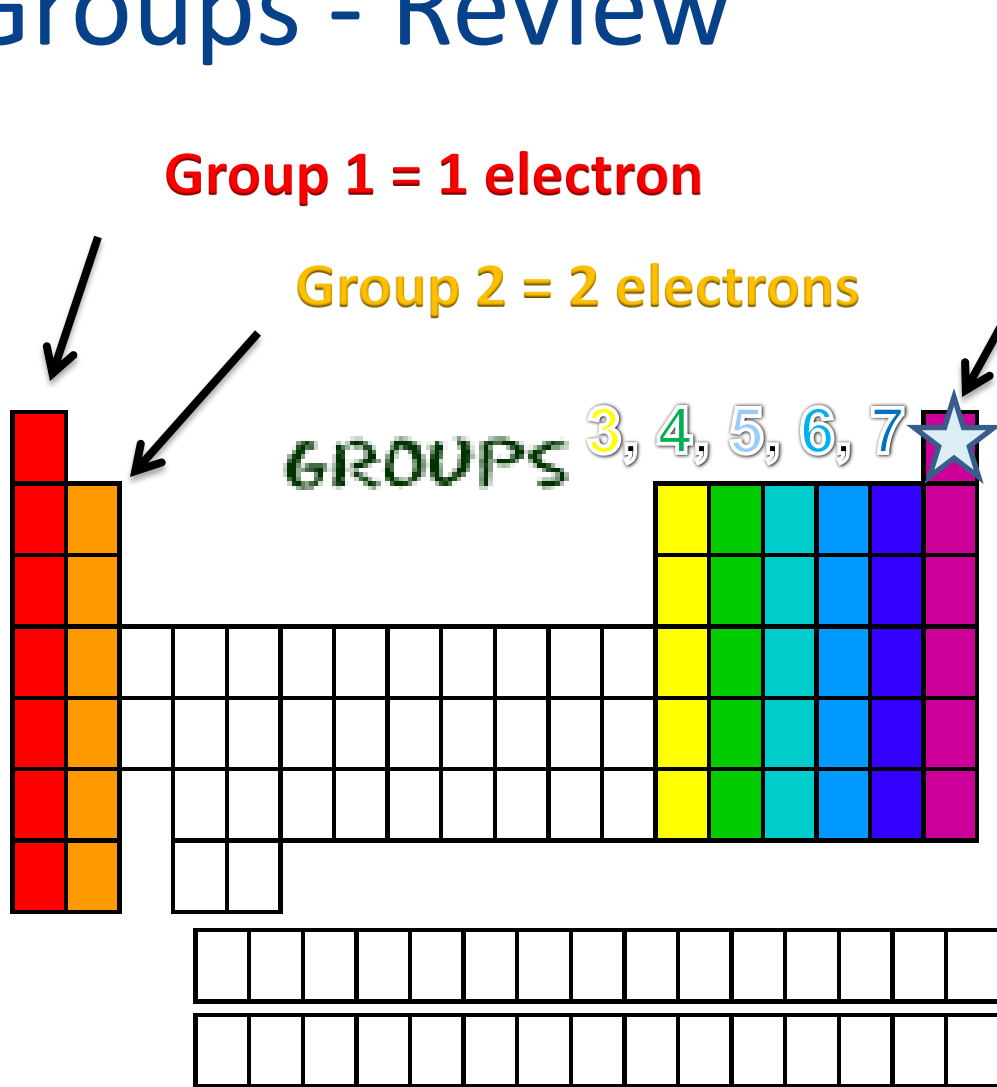


Lewis Structures



- Find out which group (column) your element is in.
- This will tell you the number of valence electrons your element has.
- You will only draw the valence electrons.

Groups - Review

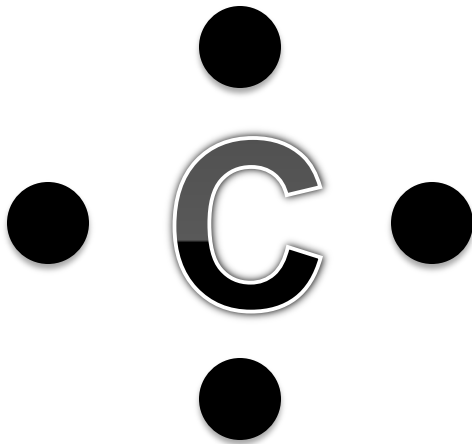


• Each column is called a "group"

• Each element in a group has the same number of electrons in their outer orbital, also known as "shells".

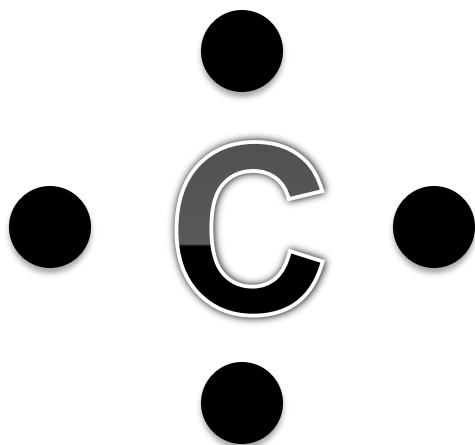
• The electrons in the outer shell are called "valence electrons"

Lewis Structures



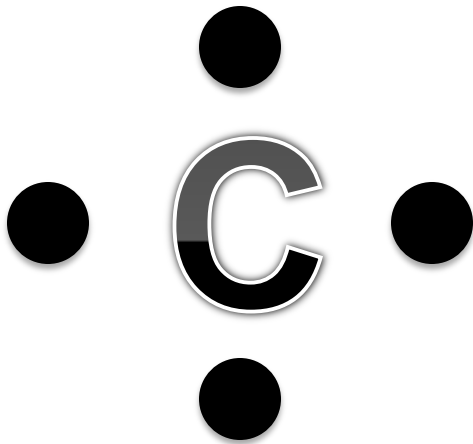
- 1) Write the element symbol.
- 2) Carbon is in the 4th group, so it has 4 valence electrons.
- 3) Starting at the right, draw 4 electrons, or dots, counter-clockwise around the element symbol.

Lewis Structures



- 1) Check your work.
- 2) Using your periodic table, check that Carbon is in the 4th group.
- 3) You should have 4 total electrons, or dots, drawn in for Carbon.

Lewis Structures



On your worksheet, try these elements on your own:

- a) H
- b) P
- c) Ca
- d) Ar
- e) Cl
- f) Al

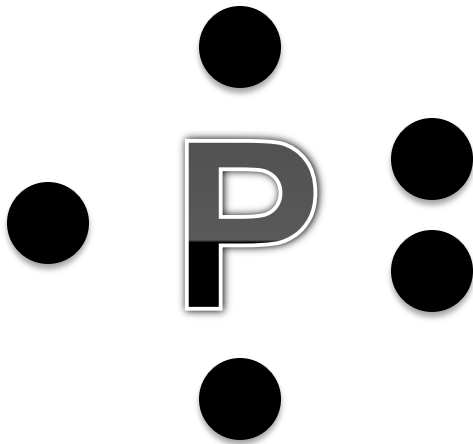
Lewis Structures



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Lewis Structures



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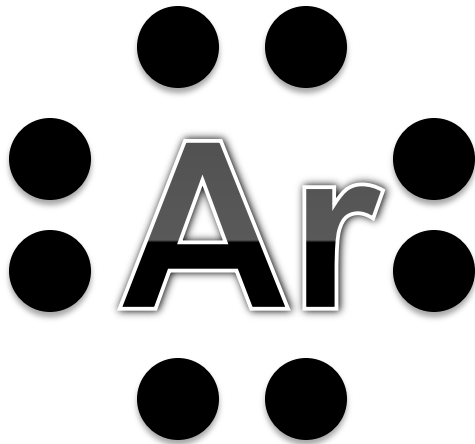
Lewis Structures



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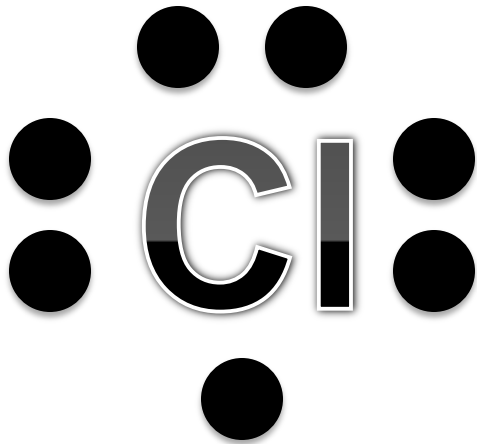
Lewis Structures



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Lewis Structures



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Lewis Structures



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End of Study Guide.

Complete the Lewis Structure
Worksheet

You should know how to draw
Lewis Structures for the first
20 elements.

Lewis Structures

Name: _____

- Lewis structures, or dot diagrams, are a simplified way to show how the valence electrons are arranged in the outer shell. This is where the chemical reactions take place. Atoms will either share or give away these electrons to form bonds.
- Using your periodic table, determine the number of valence electrons for each element.
- Draw a dot to represent each valence electron around the element symbol.
- Follow the pattern below starting with position number 1.

H	<table border="1"><tr><td>6</td><td>2</td></tr><tr><td>3</td><td>Xe</td><td>1</td></tr><tr><td>7</td><td></td><td>5</td></tr><tr><td>8</td><td>4</td><td></td></tr></table>						6	2	3	Xe	1	7		5	8	4		He
6	2																	
3	Xe	1																
7		5																
8	4																	
Li	Be	B	C	N	O	F	Ne											
Na	Mg	Al	Si	P	S	Cl	Ar											
K	Ca																	

Examples:

