

Build Your Own Periodic Table

The Bottom Line

Grade W/S 15

Lewis Dot Structures

Homework 3

Build Your Own Periodic Table

The Bottom Line

FACE IT, Nobody owes you a living,
What you achieve or fail to achieve in your
lifetime,
is directly related to what you do or fail to do.
No one chooses their parents or childhood,
but you can choose your own direction.
Everyone has problems and obstacles to
overcome,
but that, too, is relative to each individual.

NOTHING IS CARVED IN STONE,

you can change anything in your life,

if you want to badly enough,

Excuses are for losers;

Those who take responsibility for their actions

are the real winners in life.

Winners meet life's challenges head on,

knowing there are no guarantees,

and give it all they've got.

And never think it's too late or too early to begin.

Time plays no favorites

and will pass whether you act or not.

TAKE CONTROL OF YOUR LIFE.

Dare to dream and take risks...

Compete.

If you aren't willing to work for your
goals,

don't expect others to.

---Believe in Yourself---

Grade Worksheet

- Metals, Non-Metals and Valence Electrons Worksheet

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

H Hydrogen

Atomic Number: 1

Atomic Mass: 1.00797

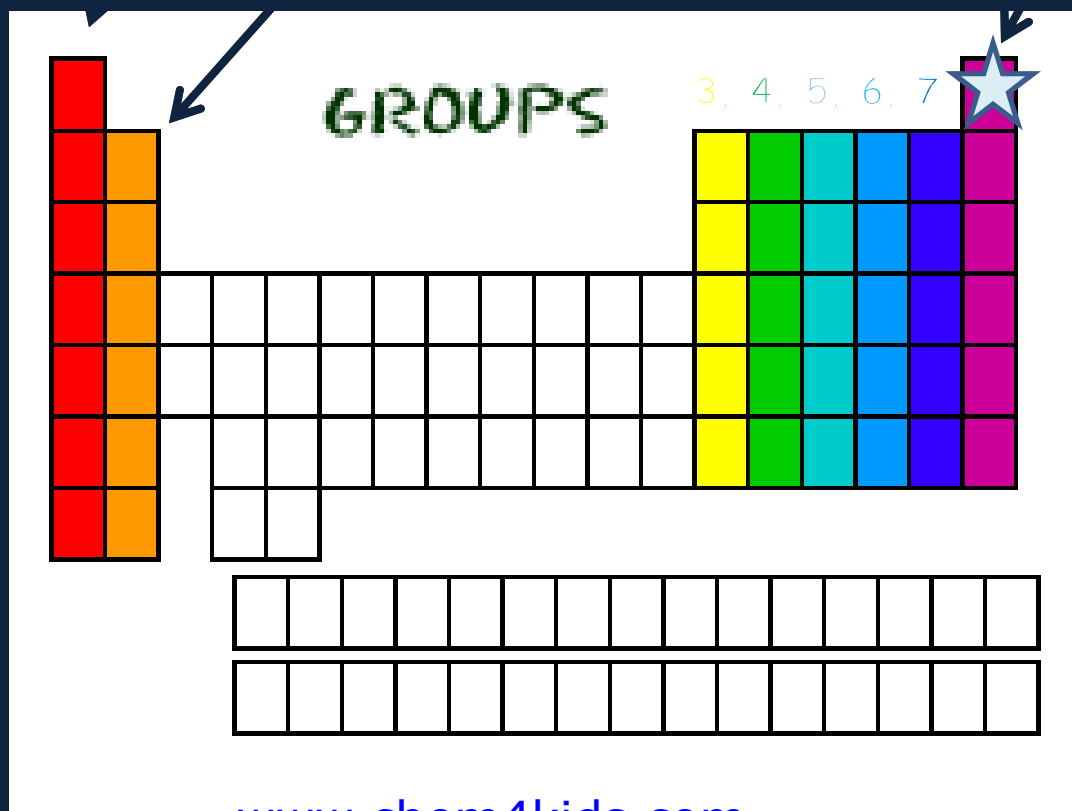
Groups - Review

Group 8 = 8 electrons

Group 1 = 1 electron

Group 2 = 2 electrons

★ Except for He, it has 2 electrons

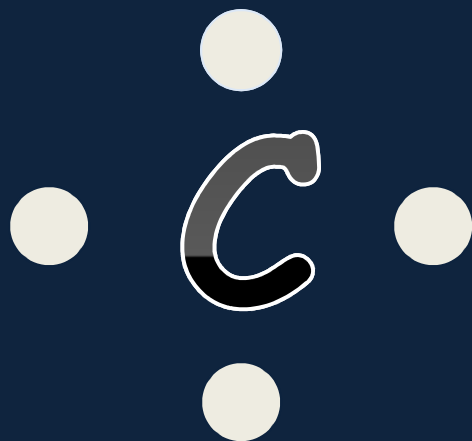


• Each column is called a "group"

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

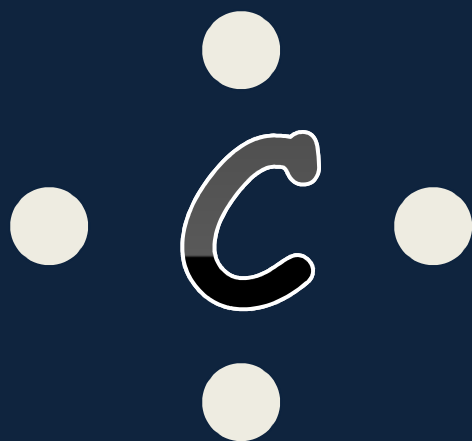
• The electrons in the outer shell are called "valence electrons"

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

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- 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.

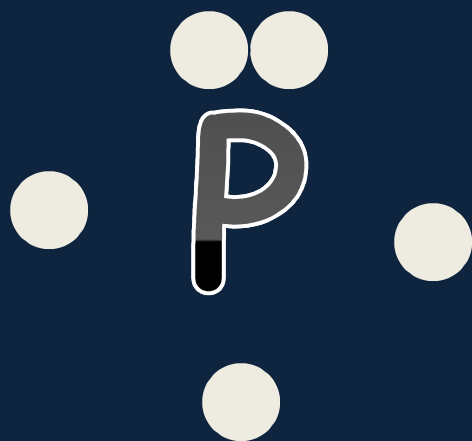
Lewis Structures



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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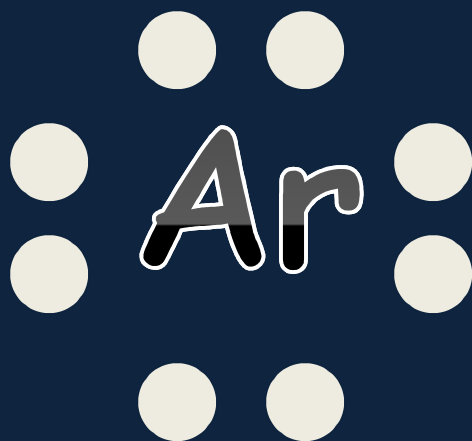
Lewis Structures



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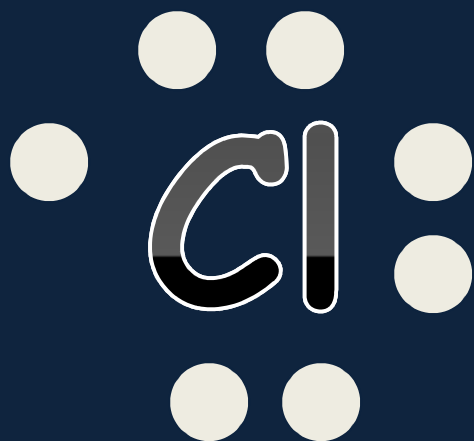
Lewis Structures



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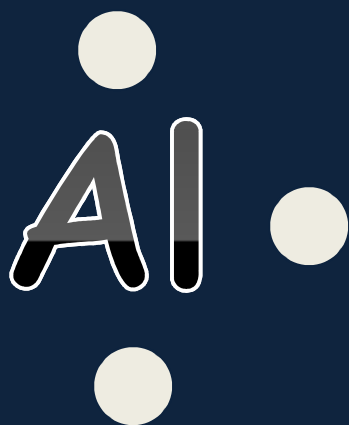
Lewis Structures



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Lewis Structures



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- You will be building your own periodic tables and organizing your elements based on your knowledge of atomic structure
- You will be giving information about the element by filling out the tiles of the periodic table
- You will organize the elements according to groups and periods
- You will identify the group names you learned in class
- To conclude, you will write three paragraphs about the periodic table using our academic vocabulary

Title

- You will be creating your periodic table on provided poster paper
- Give your Periodic Table a Title

Tiles

- You will be giving the following information for each tile given to you
- This information is based upon the periodic table
- On your poster, create a key to your tile identifying the following
 - Atomic Number
 - Chemical Name
 - Atomic Mass

The tile template is enclosed in a rectangular border. At the top left, a square box contains the letter 'B' with a horizontal line above it and two horizontal lines below it. To the right of this box are three rows of text: 'P = ___', 'N = ___', and 'E = ___'. Below the square box is the text 'Bohr Diagram'. In the center of the tile is a Bohr diagram consisting of two concentric circles. Below this diagram is the text 'Lewis Structure'. At the bottom right of the tile is the letter 'B'.

Organization

- You will organize the tiles of the elements in the same manner the periodic table is organized
- Number the Groups accordingly

Identify Group Names

- Of the tiles that you have been given, identify the Group (Family) Names by using a different color for each group
 - Hint-There are four
- Create a key of the colors you are using with the family name

Concluding Paragraphs

- On the half sheet provided you, write a concluding paragraph (3-5 sentences long each) for each vocabulary word listed below
 - Atomic Number
 - Valence Electron
 - Subatomic Particles
- Glue your Concluding Paragraphs to the back of your poster

- Your poster is due next period
- Next Class
 - Unit 2 Test review
 - Binder Prep

Homework 3

On the provided poster paper, give your Periodic Table a Title

- You will be giving the following information for each tile given to you
- This information is based upon the periodic table
- On your poster, create a key to your tile identifying the following
 - Atomic Number
 - Chemical Name
 - Atomic Mass

- Organization
 - You will organize the tiles of the elements in the same manner the periodic table is organized
 - Number the Groups accordingly

- Identify Group Names
 - Of the tiles that you have been given, identify the Group (Family) Names by using a different color for each group
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- Concluding Paragraphs
 - On the half sheet provided you, write a concluding paragraph (3-5 sentences long each) for each vocabulary word listed below
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