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| Ms McParland Classwork + Homework  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues,&Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. Fill in the table

|  |  |  |  |
| --- | --- | --- | --- |
| Circle atoms that are stable, cross out atoms that are unstable | Either write ‘stable’ or redraw the same letters in the same arrangement but with any number of e- that will make the atoms stable | Circle atoms that are stable, cross out atoms that are unstable | Either write ‘stable’ or redraw the same letters in the same arrangement but with any number of e- that will make the atoms stable |
|  |  |  |  |

1. *Complete each step with the correct word or words.*

In class we learned that the steps for drawing a Lewis Structure of a molecule are:

* 1. First, you total up the number of valence \_\_\_\_\_\_\_ on all of the atoms of the formula.
  2. Then, when totaling up the e-, assume that each atom is (charged / neutral )
  3. Next, place the element symbols on your drawing first, putting in the middle, any element that there are ( few of / lots of )
  4. Now add electron dots (one at a time / two at a time ) to bond the atoms together
  5. Add any leftover (protons / electrons ) as **lone pairs**
  6. Check that each atom is stable and follows the ( trio / quartet / octet ) rule.
  7. If you ran out of e-, you should erase some lone pairs and turn them into (single / double ) bonds.

1. Draw a stable Lewis Dot structure for each molecule:

|  |  |
| --- | --- |
| I2 | OF2 |
| CO2 | NI3 |

1. Rewrite the following Noble Gas Abbreviations in the longer version of electron configuration (1s2 2s2 etcetera)
2. [Ne]3s23p5
3. [He]2s1
4. Write the Lewis Dot symbol for each of the two atoms above:

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| --- | --- | --- |
|  | 1. In the white box at right sketch Bohr Orbit diagram in a cartoon style similar to the one shown at left but make it different in two ways:  * Make it a sketch for the nitrogen atom with the ionization energy graph shown here * where each electron should be, write a number that matches each of the numbered ionizations from the graph below |  |
|  |

1. What is the largest element in Period 3?
2. What element is the smallest nobel gas?
3. Which halogen has the **second** highest electronegativity?
4. Draw a stable Lewis Dot structure for each molecule:

|  |  |
| --- | --- |
| H2S | N2 |
| HCl | F2 |