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| 1s22s2 To Lewis Dot  CλeMis+ry: http://genest.weebly.com  The first three pages are all new today. Testable on May 27, but not Quizzable May 20th! Page 4 is VERY quizzable, however. |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. Rewrite the following Noble Gas Abbreviations in the longer version of electron configuration (1s2 2s2 etcetera)
   1. [Ar]4s23d2
   2. [He]2s22p5
   3. Write the Lewis Dot symbol for each of the two atoms above:

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| 1. for a NEUTRAL atom with the following electron configuration: | |
| 1s22s22p63s23p64s23d104p2 | |
| Draw a Bohr orbital diagram (the circles) | Write a ‘number-number-number’ diagram for this atom |
| Write a Lewis dot diagram (Letter and dots) for this atom |
| This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable ) |

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| 1. Do three things for a NEUTRAL atom with the following electron configuration: |
| [Ar]4s23d104p3 |
| With the help of your table, write the long version of the above electron configuration.  Tell how many e- are in each energy level  1st: 2nd: 3rd: 4th: 5th:  This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable )  Write a Lewis dot diagram (Letter and dots) |

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| 1. for a NEUTRAL atom with the following electron configuration: | | |
| 1s22s22p63s23p64s1 | | |
| Write a ‘number-number-number’ diagram for this atom | Write a Lewis dot diagram (Letter and dots) for this atom | This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable ) |

1. With the help of your table Rewrite the following Noble Gas Abbreviations in the longer version of electron configuration (1s2 2s2 etcetera)
   1. [Ar]4s23d104p4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. [He]2s22p5 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. Write the Lewis Dot symbol for *each* of the two atoms above:

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| 1. for a NEUTRAL atom with the following electron configuration: | | |
| 1s22s22p63s23p64s23d104p65s24d105p3 | | |
| Write a ‘number-number-number’ diagram for this atom | Write a Lewis dot diagram (Letter and dots) for this atom | This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable ) |

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| 1. for a NEUTRAL atom with the following electron configuration: | | |
| 1s22s22p63s23p64s23d5 | | |
| Write a ‘number-number-number’ diagram for this atom | Write a Lewis dot diagram (Letter and dots) for this atom | This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable ) |

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| 1. for a NEUTRAL atom with the following electron configuration: | | |
| [Ar]4s23d2 | | |
| Write a ‘number-number-number’ diagram for this atom | Write a Lewis dot diagram (Letter and dots) for this atom | This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable ) |

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| 1. for a NEUTRAL atom with the following electron configuration: |
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| Tell how many e- are in each energy level  1st: 2nd: 3rd: 4th: 5th:  This atom has \_\_\_\_\_\_\_\_ valence e-  therefore it is (stable / unstable )  Write a Lewis dot diagram (Letter and dots) |

1. In each box, use your table from Wednesday (or online at our website) to write the name of the shape.

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|  |  | The carbon on the left… |
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| 1. The graph of ionization energies for a 13-electron atom is shown here. Based on the difficulty of ionization, electrons 1, 2, &3 are probably (near the nucleus / in the valence orbit) 2. Based on the difficulty of ionization, electrons 12 & 13 are probably (near the nucleus / in the valence orbit) 3. In the the box, draw a Bohr style atom. Your atom should have 13 protons. The electrons should be in three circular shaped orbits. |  | Draw a Number-Number-Number symbol for this atom in this box.  Write the Lewis dot diagram here: |

1. Write a balanced equation for S2- anion losing two electrons:

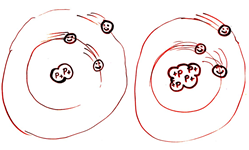
\_\_\_\_ \_\_\_\_ + \_\_\_\_

1. Write a balanced equation for the only stable calcium ion gaining two electrons:

\_\_\_\_ + \_\_\_\_ \_\_\_\_

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

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| H2S | N2 |
| HCl | F2 |

1. If electrons are smiley faces, in which case is the outermost electron tougher to remove?

1. In each pair, circle the pair that has a greater attraction.
2. an electron and proton that are 2 nanometers apart **or** an electron and proton that are 3 nanometers apart
3. an electron and the nucleus of nitrogen **or** an electron and the nucleus of oxygen

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| 1. In which situation below will attraction be stronger? ( A / B / no difference ) |  | 1. In which situation below will attraction be stronger? ( A / B / no difference ) |
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