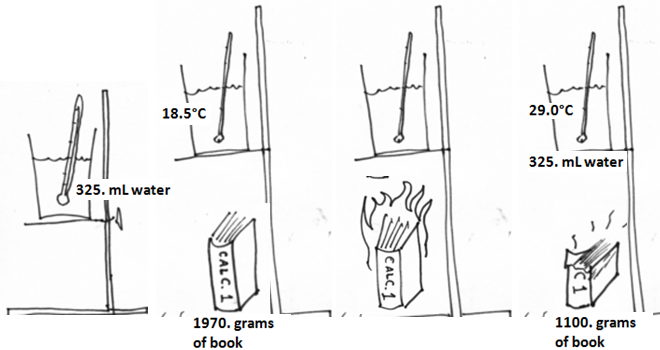
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| How do we show ionization?  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues,&Thurs after school!  After-hours question? Email me at home: [eagenest@madison.k12.wi.us](mailto:eagenest@madison.k12.wi.us) |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. Define ionization.
2. What is true about the number of particles in an atom that has a neutral charge?
3. What is true about the number of particles in any cation?
4. What is true about the number of particles in any anion?
5. Circle the ion that each element below forms when in a compound:
   1. Calcium: Ca + Ca2+ Ca3+
   2. Aluminum Al+ Al2+ Al3+
   3. Oxygen: O- O2- O3-

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| --- | --- | --- | --- | --- |
| In the after box redraw what this atom will look like after gaining two electrons.  The charge before \_\_\_\_\_\_\_\_  The charge after \_\_\_\_\_\_\_\_\_\_  It became a (anion / cation ) | Before  A description... |  | After | HighLow Letter symbol for the after atom? |
| In the after box redraw what this atom will look like after losing two electrons.  The charge before \_\_\_\_\_\_\_\_  The charge after \_\_\_\_\_\_\_\_\_\_  It became a ( anion / cation ) | Before  A description... |  | After | HighLow Letter symbol for the after atom? |
| In the after box redraw what this atom will look like after losing one electron.  The charge before \_\_\_\_\_\_\_\_  The charge after \_\_\_\_\_\_\_\_\_\_  It became a (anion / cation ) | Before  A description... |  | After | HighLow Letter symbol for the after atom? |
| In the after box redraw what this atom will look like after gaining one electron.  The charge before \_\_\_\_\_\_\_\_  The charge after \_\_\_\_\_\_\_\_\_\_ | Before  A description... |  | After | HighLow Letter symbol for the after atom? |

For the previous four questions, draw an ionization equation, similar to A + e- -> A- or A -> A+ + e-

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



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| --- | --- |
| **If the formula of ‘book’ is C6H12O6, find how many moles of book burned** | **Recall that Cp for water is 4.18 J/g-°C**  Q = m cp ∆T  **Find how many kilojoules went into the water** |
| **Use ratios to find how much heat would come out from burning 1 mole of book:** | |

1. If an atom is helium how many protons does it have? \_\_\_\_\_\_\_\_\_\_\_
2. If an atom has 10 protons what element is it? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. If the atom’s mass number is 18 how many nucleons does it have?