Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Define the following terms and draw a picture where appropriate as well as list any words that can be synonyms.

|  |  |  |
| --- | --- | --- |
| **TERM** | **DEFININTION** | **PICTURE/SYNONYMS** |
| **HOMOGENEOUS**  **MIXTURE** | **the same throughout**  **aq-aqueous, dissolved in water, solution** | **Aq, solution** |
| **HETEROGENEOUS**  **MIXTURE** | **Unevenly distributed** |  |
| **SOLID** | **definite shape and volume. Crystaline structure. Tightly packed regular geometric pattern**  **not compressible** |  |
| **LIQUID** | **Weak forces of attraction. Definite volume but not shape particles move not compressible** |  |
| **GAS** | **Weakest attraction no shape or volume can be compressed** |  |
| **ELEMENT** | **On the periodic table, pure substance, mono or diatomic(Br,I,N,Cl,H,O,F)** |  |
| **COMPOUND** | **two or more different elements combined in a fixed proportion** |  |
| **MIXTURE** | **2 or more different substances together. Can be homogeneous or heterogeneous varied proportions** |  |
| **CONDENSATION** | **Phase change**  **Physical change gas to liquid** |  |
| **FILTRATION** | **Separation of a mixture by particle size** |  |
| **DISTILATION** | **Separation of two or more liquids by boiling point** | **\\bellmore-merrick\TEACHERS\HOME_Teachers\klevy\My Pictures\distillatio.jpg** |
| **CHROMATOGRAPHY** | **Separation by density and polarity** |  |
| PHYSICAL PROPERTY | **Obtained with your senses or measured value** | **Color, boiling point, solubility, density , luster** |
| PHYSICAL CHANGE | **Phase change or dissolved in water** | **Solid to liquid, dissolving in water** |
| CHEMICAL CHANGE | **Reaction, rust, burning. Produces a different product** | **Reacts, burns, combusts** |
| CHEMICAL PROPERTY | **How a substance reacts with another substance** | **Reacts, flameable** |
| *Neutron* | **Found in the nucleus, no charge, mass of 1amu, found by subtracting the atomic number from the mass number** |  |
| *Electron* | **Negatively charged, found outside the nucleus in orbitals in atoms equals the atomic number.** |  |
| *Mass Number* | **Protons plus neutrons. Changes for isotopes** |  |
| *Isotope* | **Same element, same atomic number, different neutrons(mass number)** |  |
| *Wave Mechanical Model* | **Modern theory of the atom with electrons found in orbitals(probable location of electrons)** |  |
| *Valence electrons* | **Last in the electron configuration** | 2-8-4  The 4 is valence |
| *Nucleus* | **Positively charged. Contains protons and neutrons** |  |
| *Atom* | **Smallest part of an element** |  |
| *Gold Foil experiment* | **Atom is mostly empty space with a dense positive center** |  |
| *Ground*  *State* | **Lowest energy state of an electron. Found on the periodic table** |  |
| *Orbital* | **Area of probable location of an electron** |  |
| *Atomic Number* | **Number of protons in the nucleus** |  |
| *Proton* | **Positively charged found in the nucleus** |  |
| *Electron Configuration* |  |  |
| *Bright line spectrum (spectral lines or spectra)* | **Produced when an electron that absorbed energy and went to the excited state comes back down and gives off the energy as light** |  |
| Alpha Particle: | **Helium nucleus** |  |
| Excited State: | **When an electron absorbs energy and moves to a higher energy level** | **2-8-4 = ground**  **2-7-5= excited** |
| Transmutation: |  |  |
| Radioisotope: |  |  |
| Half Life: |  |  |
| Gamma Decay: |  |  |
| Fission: |  |  |
| Beta Particle: |  |  |
| Artificial Transmutation(Radioactivity): |  |  |
| Radioactivity: |  |  |
| Natural Transmutation  (Radioactivity): |  |  |