**Year 8 Term 1 Revision**

1. **A) Explain** the difference between physical and chemical changes, and give two examples of each.
2. **Explain h**ow can you identify if a change is a physical or a chemical change has occured?
3. **List** the first 20 elements of the periodic table. **Write** the name and chemical symbol for each.

**3.**  **Define** the terms ATOM, ELEMENT, COMPOUND, MIXTURE, MOLECULE and **list** two examples of each.

 **4.** Using the following symbols: A = , B = , and C = , **draw** a diagram to represent:

 **a)** an atom of element B

 **b)** a molecule of a compound containing A and B

 **c)** a molecule of element C

 **d)** a molecule of a compound of A and C

**H**

**H**

**H**

**H**

**C**

 **5. a)** Is the diagram on the right showing an element or a compound? Justify your answer.

**b)** Is the diagram on the right a molecule or not? Justify your answer.

**c)** Is the diagram on the right showing a pure substance or a mixture? Justify your answer

**d) Write** the formula for the substance shown on the right:

**6. Identify** the general location of METALS and NON-METALS

on the periodic table, and list 3 examples of each.

**7.** **Explain** why some elements have a symbol that is very different to its name. For example, Iron is Fe.

|  |  |  |
| --- | --- | --- |
| COMPOUND | FORMULA |  **a. List** the elements that make up: i. Ammonia ii. Cane Sugar **b. State** which compound would have the largest molecules. **c. State** which compounds contain Carbon.  **d.** **State** the number of oxygen atoms in three molecules of Iron oxide. **e.** **Identify** the compound from which you could extract the element sodium.f.Which compound has the most hydrogen atoms? (bit if a trick question) |
| AlcoholAmmoniaCane sugarCarbon dioxideHydrochloric acidIron oxideSodium chlorideWater  | C2H5OHNH3C12H22O11CO2HClFe2O3NaClH2O |

 **8.** Use the table below to answer the questions that follow:

 **9.**  **Identify** which picture below best represents:

**a)** atoms of an element **d)** molecules of a compound containing three atoms

**b)** molecules of an element **e)** a mixture of elements

 **c)** molecules of a compound made of 2 elements **f)** a mixture of compounds

 I II III

 **IV V VI**



**10. List** the four (4) indicators that a chemical change has taken place.

**11.** **Complete** the table below about solutions, colloids and suspensions:

|  |  |  |  |
| --- | --- | --- | --- |
| **FEATURE** | **SOLUTION** | **COLLIOD** | **SUSPENSION** |
| Particle size |  |  |  |
| Can particles be seen? |  |  |  |
| Does light pass through, or is it scattered? |  |  |  |
| Is it Transparent,Translucent or Opaque? |  |  |  |
| Can particles be filtered out? |  |  |   |
| Does it separate into layers over time? |  |  |  |
| Examples |  |  |  |

**12. List** some properties of a material that would be suitable for making a skateboard deck. **Identify** which would be the *two most important* properties of the material, and **justify** why you think these are the most important properties needed.