NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE DUE: \_\_\_\_\_\_\_\_\_\_\_\_

TEACHER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Year 9 Term 1 – Chemistry**

**HOMEWORK SHEET No. 1 – Learning Goal 1**

|  |  |
| --- | --- |
| /5 | **1.** True or false?* 1. An atom has the same number of protons as it does electrons.
	2. The atomic number is the number of protons in an atom.
	3. An atom always has the same number of neutrons as it does protons.
	4. The mass number is the number of neutrons in an atom.
	5. The mass number is the number of particles in the nucleus.
 |
| /5 | **2.** Copy and complete this table for the three types of subatomic particles.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subatomic particle** | **Letter used as Symbol** | **Charge** | **Mass** | **Location** |
|  |  |  | 2000 times heavier than an electron |  |
|  |  | none |  |  |
| electron |  |  | Almost negligible |  |

 |
| /5 | **3.** Draw a picture of an Oxygen atom showing the * 8 protons,
* 8 neutrons,
* 8 electrons,
* the nucleus, and
* electron shells.
 |
| /4 | **See the source image4.** Pictured are all the elements you need to create a timeline for the development of the modern model of atomic structure. Use the blank timeline to write years and beside each year write the important discovery at that time.J. J. Thomsonp+e–plum puddingJohn Daltonatom is a ball |
| /4 | **5.** Four groups all measured the boiling point of water. Their measurements were:

|  |  |
| --- | --- |
| Anh’s group | 100.1ºC |
| Fiona’s group | 98.9ºC |
| **Joe’s group** | 75.7ºC |
| Sharnika’s group | 101.2ºC |

After the experiment **Joe** claimed that the boiling point of water was approximately 76ºC.1. Were his experimental observations replicated?(1)
2. What do you make of his claim?(2)
3. According to this data, calculate the boiling point of water.(1)
 |
| /3 |

|  |  |  |
| --- | --- | --- |
| **Term** | **Correct description** | **Wrong Description** |
| Atomic number |  | one of the particles of an atom, described as having a neutral charge |
| Mass number |  | Number of protons in the nucleus of the atom. Used to organise positions in the periodic table. |
| Atomic mass |  | one of the particles of an atom, described as positive |
| proton |  | One of the particles of an atom, has a negative charge. |
| neutron |  | Number of all the protons and neutrons in the nucleus of the atom |
| electron |  | Weighted average of the mass numbers of all the isotopes of an element. |

**6.** Write the correct description of each term in the space beside it. The correct description for each term is somewhere in the column called “wrong description” |