WHAT YOU KNOW…#3

1. Why do electromagnetic waves do not need a medium?

Electromagnetic waves do not require a physical medium to spread and further to progress.

1. What is the law of energy conservation?

Energy is not created or destroyed

1. What causes waves?

The vibration of charged particles causes waves

1. Name three states of matter: solid, liquid, and gas
2. Give examples of each state of matter, ex. Chair, phone, etc. (Refer to question number 4).

|  |  |  |
| --- | --- | --- |
| Solid | Liquid | Gas |
| PencilLaptoptable | WaterJuiceCoffee | OxygenNitrogenCarbon dioxide |

\*\*\* These are my examples

1. Give the definition of an ion:

An atom with a charge

1. What is the difference between a cation and an anion?

Cation is an atom with a positive charge

Anion is an atom with a negative charge

1. Define electronegativity:

The ability of an atom to attract electrons

1. Make a list of the scientific method.
2. Question
3. Hypothesis
4. Experiment
5. Data

e. Conclusion

1. Explain what happens with electronegativity on the periodic table:

Electronegativity increases from left to right

Electronegativity decreases from top to bottom

As the number of protons in the nucleus **increases**, the **electronegativity**or attraction will **increase**. Therefore **electronegativity increases** from left to right in a row in the **periodic table**

From **top to bottom** down a group, **electronegativity** decreases. This is because atomic number increases down a group, and thus there is an increased distance between the valence electrons and nucleus, or a greater atomic radius