## INSTRUCTIONS

- ① Use your notes to complete the following statements.
- 1. All matter is made up of submicroscopic particles called <u>?</u>.
- At the centre of each atom is a \_\_\_\_, with two kinds of particles: the positively charged \_\_\_\_ and the uncharged \_\_\_\_.
  Protons do not move from the nucleus when an atom becomes charged.
- 3. A cloud of negatively charged particles called <u>?</u> surrounds the nucleus. An electron has the same amount of charge as a proton, but the charge is <u>?</u>. When atoms become electrically <u>?</u>, only the electrons move from atom to atom.
- 4. <u>?</u> charges repel each other; <u>?</u> charges attract each other. Furthermore, charged objects will attract some <u>?</u> objects.
- 5. In some elements, such as copper, the nucleus has a <u>?</u> attraction for its electrons than in others, and electrons are able to move freely from atom to atom. In other elements, such as sulfur, the nucleus has a <u>?</u> attraction for its electrons, and the electrons do not move.
- In each atom, the <u>?</u> of electrons surrounding the nucleus <u>?</u> the number of protons in the nucleus. A single atom is always electrically neutral.
- If an atom <u>?</u> an extra electron, the net charge on the atom is negative, and is called a negative ion or <u>?</u>. If an atom <u>?</u> an electron, the net charge on the atom is positive, and it is called a positive ion or <u>?</u>.

## NOTE 🖘

## If you cannot find a word horizontally, vertically, or diagonally, you probably have an incorrect answer for the statement!

| А | С | А | т | Ι | 0 | Ν | В | 0 | Y | G | Ρ | 0 | Е | Μ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Y | L | Ν | F | Е | Q | U | А | L | S | Ρ | В | Ν | 0 | Ρ |
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| R | V | 0 | Е | Ι | Ρ | В | Y | А | М | Y | А | Е | н | Е |
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| 0 | Ν | U | С | L | Е | U | S | U | W | A | U | R | х | R |
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| S | 0 | W | S | Ν | К | Е | W | Е | А | К | Е | R | К | U |
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