

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. The particle that has the smallest mass is the
- a. electron
 - b. proton
 - c. neutron
 - d. nucleus
 - e. ion
- _____ 2. Two atoms are isotopes if they have
- a. different atomic numbers
 - b. the same mass number, but different atomic numbers
 - c. the same number of protons and neutrons
 - d. the same number of electrons, but a different number of neutrons
 - e. the same atomic number, but a different mass number
- _____ 3. Which subatomic particle is represented by the chips or raisins in Thompson's model
- a. electrons
 - b. neutrons
 - c. leptons
 - d. protons
- _____ 4. The Materials Safety Data Sheet, which comes with chemicals, describes which of the following?
- 1. The steps that should be taken if the chemical is spilled;
 - 2. The hazards that are associated with the chemical;
 - 3. The legal liability associated with the chemical's use;
 - 4. The protective clothing that should be worn when handling the chemical.
- a. 1, 2, and 4 only
 - b. 1, 2, 3, and 4
 - c. 2, 3, and 4 only
 - d. 1, 3, and 4 only
 - e. 1 and 2 only
- _____ 5. A red border on a hazard symbol indicates
- a. Caution
 - b. Danger
 - c. Non-hazardous
 - d. Warning
- _____ 6. What does WHMIS stand for?
- a. workplace and household materials information system
 - b. workplace healthy materials information symbols
 - c. workplace household materials instruction system
 - d. workplace hazardous materials information system
- _____ 7. The first column of the periodic table contains the:
- a. Halogens
 - b. Alkaline earth metals
 - c. Alkali metals
 - d. Noble gases
- _____ 8. Which of the following contains only non-metals?
- a. I, H, Ag
 - b. Br, S, P
 - c. C, Cl, K
 - d. Al, Sr, Na
- _____ 9. The atomic mass is:
- a. The number of electrons in the atom
 - b. The number of neutrons in the atom
 - c. The number of protons in the atom
 - d. The sum of protons and neutrons
- _____ 10. Sulphur atoms form ions with the following charge:
- a. 1-
 - b. 1+
 - c. 2-
 - d. 2+
- _____ 11. Which of the following ions have the same number of electrons as the noble gas Neon?
- 1) K^+ 2) F^- 3) Mg^{2+} 4) S^{2-} 5) O^{2-}
- a. 2, 3 and 5 only
 - b. 3, 4 and 5 only
 - c. 1 and 2 only
 - d. 2 only

Matching /8

Match each step or part of the scientific method to matching statements below:

- a. Hypothesis

b. Problem

c. Procedure

d. Errors
- e. Independent (manipulated variable)

f. Dependent variable

g. Results

h. Conclusion

- _____

12. You added more solution than the procedure called for
- _____

13. Does too much salt in the soil prevent roses from growing?
- _____

14. Your test subjects will eat 0gm, 20gm or 50gm of chocolate a day
- _____

15. Eating more chocolate will cause you to get more zits.
- _____

16. The steps you follow to test your hypothesis
- _____

17. The number of zits your subjects get after their chocolate treatment
- _____

18. The hypothesis was correct. Eating more chocolate results in more zits.
- _____

19. The roses grew better with less salt in the soil

Short Answer

20. The term ‘atom’ was first proposed by Democritus and was defined as the smallest, indivisible particle of matter.

a) Explain why this definition of an atom can be considered accurate?

b) Explain why this definition of an atom is inaccurate?
21. Explain **two similarities** and **two differences** between Thompson’s raisin bun model and Rutherford’s nuclear model.
22. Given the information on various elements in the table below:

a) complete the table

b) which, if any, are isotopes of each other

c) explain your answer to (b)
- | | Z | A | Neutrons | Electrons | Element Name |
|----|----|----|----------|-----------|--------------|
| A. | | 40 | | 20 | |
| B. | 18 | 40 | | | |
| C. | | 36 | 18 | | |
| D. | 16 | | 20 | | |
23. Identify 2 components of Dalton’s atomic model that are still incorporated in current models of the atom.
- DRAW THIS LINE** on your answer page and indicate how confident you feel in this topic and the accuracy of your quiz answers.
****After reviewing the answers & making your corrections, make a second mark on the line in your correction colour.**
-
- Not Yet

Getting there

Got it!!