## 2.1 Early Thinking about the Composition of Matter

## Part Two

**Part I :Answer the following questions as True or False**

1. Aristotle believed that matter is made up of tiny, indivisible particles called atoms.

2. According to Aristotle, matter can be divided endlessly into smaller parts without ever reaching a smallest piece.

3. Aristotle thought that matter consisted of combinations of fire, earth, air, and water.

4. Aristotle supported the idea of a void or empty space existing between particles of matter.

5. Aristotle rejected the atomic theory proposed by Democritus because he believed matter was continuous.

6. Democritus believed that matter was made up of tiny, indivisible particles he called "atomos."

7. Aristotle's theory of matter, with its four elements, was more influential than Democritus' atomic theory for centuries.

8. **Democritus** was the first to suggest that matter is made up of tiny, indivisible particles called atoms

LIVEWORKSHEETS

9. Aristotle supported the atomic theory proposed by Democritus.

10. According to **Aristotle**, all matter is made of four elements: earth, water, air, and fire.

11. The **Continuous Matter Theory** stated that matter could not be divided endlessly.

12. **Dalton's Atomic Theory** revived the idea of atoms and provided scientific evidence.

13. The ancient Greek philosopher **Plato** agreed with the atomic theory of matter.

14. Early atomic theories were based more on logic and philosophy than on experiments.

15. The word **"atom"** comes from a Greek word meaning "uncuttable" or "indivisible."

16. Democritus believed atoms had internal structure and could be split.

17. Modern atomic theory is completely identical to the ideas proposed by Democritus.

18. **Dalton** believed that atoms of the same element are exactly alike in

LIVEWORKSHEETS

mass and properties.

19. **Aristotle's theory** delayed the acceptance of atomic theory for many centuries.

20. Early Greek philosophers conducted many experiments to support their theories about matter.

**Part II : Match the concepts in column "A" with descriptions in column "B" . Put the correct number in the space provided**

| **Column A (Concepts / Philosophers)** | **Column B (Descriptions / Ideas)** |
|---|---|
| 1. Democritus | ….. Earliest recorded debate about the composition of matter |
| 2. Aristotle | …… Did not believe in microscopic including particles |
| 3. Atomos | ……. Proposed matter is continuous |
| 4. Fire, Earth, Air, Water | ……. Greek word meaning "uncuttable" |
| 5. Continuous theory of matter | ……. Believed atoms differ in shape and size |
| 6. Discrete theory of matter | ……. Four basic elements of Aristotle's theory |
| 7. Greek philosophers | ……. Matter cannot be infinitely divided |

LIVEWORKSHEETS

| | |
|---|---|
| 8. 460 – 370 B.C | …… Matter can be divided forever |
| 9. 384 – 322 B.C | …… Proposed atoms as the fundamental unit |
| 10. Believed matter has indivisible particles | …….Era of Aristotle's life |
| 11. Believed matter can be divided endlessly | ……. Era of Democritus' life |
| 12. Ancient discussions on matter | ……. Scientists of their time |

LIVEWORKSHEETS