

Key Postulates

- **All matter is made of atoms:** Atoms are tiny, hard blocks that cannot be split.
- **Identical properties:** Every atom of a specific element has the exact same size, mass, and features.
- **Different elements differ:** Atoms of one element do not match the atoms of another element.
- **Whole-number combinations:** Atoms mix in simple numbers like 1:1 or 1:2 to build compounds.
- **Reactions are rearrangements:** Chemical changes shift how atoms connect, but never destroy or change the atoms themselves.

Limitations and Updates

- **Indivisibility:** Scientists later found that atoms can be split into smaller subatomic parts (protons, neutrons, and electrons).
- **Mass variation:** The discovery of isotopes showed that atoms of the same element can have different weights due to varying numbers of neutrons.