

Chapter 1

Suggested end-of-chapter questions

17. Classify each statement as an observation, a law, or a theory.
- (a) When a metal is burned in a closed container, the sum of the masses of the container and its contents does not change.
 - (b) Matter is made of atoms.
 - (c) Matter is conserved in chemical reactions.
 - (d) When wood is burned in a closed container, its mass does not change.
18. Classify each statement as an observation, a law, or a theory.
- (a) The star closest to Earth is moving away from Earth at high speed.
 - (b) A body in motion stays in motion unless acted upon by a force.
 - (c) The universe began as a cosmic explosion called the Big Bang.
 - (d) A stone dropped from an altitude of 450 m falls to the ground in 9.6 s.
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