

Unit 07: Kinetic Theory

Content Area: **Science**
Course(s): **Chemistry Accelerated**
Time Period: **Marking Period 3**
Length: **2 weeks**
Status: **Published**

Textbook Resources

Glencoe Science Chemistry Concepts and Applications

Chapter 10: The Kinetic Theory of Matter

Standards

SCI.9-12.HS-PS2-6	Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials.
SCI.9-12.HS-PS1-3	Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.

Goals/Objectives

- How does energy impact the behavior of individual particles and, in turn, account for the states of matter?

Content

- Absolute Zero
- Changes in state
- Energy and its relation to temperature
- Interparticle and intraparticle forces
- Kinetic-molecular theory of matter
- Melting and freezing points, boiling points and condensation points
- Temperature scales
- Vapor Pressure

Skills

- • Convert between temperature scales
- • Describe the motion of particles according to kinetic-molecular theory
- • Describe what happens to particles when they change state

- • Differentiate among the states of matter
- • Interpreting heating curves
- • Relate temperature to the kinetic energy of particles