



Conceptual Physical Science

New 9th Grade Science Course
September 2020



Conceptual Physical Science (CPS)

- 9th grade science course
 - One semester of Chemistry
 - One semester of Physics
- Qualitative and descriptive introduction to core concepts of each physical science
- Designed to accommodate the requirements of college-bound students

Conceptual Physical Science (CPS) Topics - Chemistry

- Chemistry
 - Unit 1 – Matter (HS-PS1-7)
 - Unit 2 – Atoms (HS-PS1-2, 1-8)
 - Unit 3 – Periodic Table and Trends (HS-PS1-1, 1-2)
 - Unit 4 – Intermolecular Forces (HS-PS1-3, 2-4, 2-6)
 - Unit 5 – Thermodynamics (HS-PS1-4, 1-5, 1-6, 3-4)

Conceptual Physical Science (CPS) Topics - Physics

- Physics
 - Unit 1 – Forces and Motion (HS-PS2-1)
 - Unit 2 – Momentum and Collisions (HS-PS2-2, 2-3, 3-1, 3-2, 3-3)
 - Unit 3 – Circular Motion (HS-ESS1-4)
 - Unit 4 – Vibrations and Waves (HS-PS4-1, 4-5)
 - Unit 5 – Electromagnetic Radiation (HS-PS2-5, 3-5, 4-2, 4-3, 4-4)

Advantages

- No dependence on current or previous math courses
- HS physical science is closer to MS physical science in progression
 - **Without redundancy of topics**
- More NJSLA Science Standards
 - All 24 Physical Science (Freshman year)
 - All 24 Life Science Standards (Sophomore year)
 - All 19 Earth and Space Science Standards (Junior year)

Current Progression

Sample Course Sequences

SCIENCE DEPARTMENT

Grade 9	Grade 10	Grade 11	Grade 12
Applied Biology	Applied Chemistry	Applied Physics Anatomy & Physiology Environmental Science	Applied Physics Environmental Science Anatomy & Physiology
Lab Biology	Lab Chemistry	Environmental Science Anatomy & Physiology Lab Physics AP Biology	Environmental Science Lab Physics Anatomy & Physiology AP Biology AP Physics
Lab Biology	Honors Chemistry	Environmental Science Anatomy & Physiology Lab Physics AP Biology AP Chemistry AP Physics	Environmental Science Anatomy & Physiology Lab Physics AP Biology AP Chemistry AP Physics

New Progression

Grade 9	Grade 10	Grade 11	Grade 12
Conceptual Physical Science CP	*Chemistry CP Biology CP	Environmental Science Anatomy & Physiology Physics CP	Environmental Science Anatomy & Physiology Physics CP
Lab Biology	Lab Chemistry	Environmental Science Anatomy & Physiology Lab Physics Advanced AP Biology	Environmental Science Anatomy & Physiology Lab Physics Advanced AP Biology
Lab Biology	Honors Chemistry	Environmental Science Anatomy & Physiology Lab Physics Advanced AP Biology AP Chemistry AP Physics	Environmental Science Anatomy & Physiology Lab Physics Advanced AP Biology AP Chemistry AP Physics

* This course is **ONLY** an option for students that took Applied Biology previously.