

Science Pacing Guide

Physical Science

- April 6 Newton's Laws of Motion including force, weight, inertia, weight, mass, and projectile motion.
- April 13 Newton's Third Law, action and reaction forces, and momentum.
- April 20 Work, power, mechanical advantage, simple and compound machines.
- April 27 Energy, kinetic, potential, mechanical, and conservation of energy.
- May 4 Thermal Energy, temperature scale conversions, and energy transfer.
- May 11 Conduction, convection, radiation, convection currents, and weather fronts.
- May 18 Wave properties, types of waves, reflection, refraction, and interference.

Anatomy & Physiology

- April 6 Viral Reproduction, Lytic and Lysogenic Cycles, and Viral entrance into host cells.
- April 13 Leg Muscles, location and attachment to bones, including origin, insertion, and action.
- April 20 Arm Muscles, location, origin, insertion, and action.
- April 27 Digestive System including location and structure of organs.
- May 4 Cardiovascular System including chambers of the heart and the flow of blood through the body.
- May 11 Major Blood Vessels of the Body including names, locations, and functions of arteries, veins, and capillaries.
- May 18 Respiratory System including organs locations and functions.

Forensic Science

- April 6 Drugs and Poisons including medical uses, danger of physical and psychological dependence, and penalties for possession.
- April 13 Drugs and Poisons including schedule, chemical makeup, availability, and production.
- April 20 Bloodstain Patterns including properties of blood, and formation of bloodstains.
- April 27 Bloodstain alterations, spatters, size, shape, and directionality.
- May 4 Autopsy, investigation of death, medical examiner, and forensic pathology.
- May 11 Autopsy time of death, mechanical trauma, and toolmarks.
- May 18 Toxicology of blood, urine, stomach, and methods of analysis.

Chemistry

- April 6 Describing chemical reactions, writing a word equation, and balancing and chemical equation.
- April 13 Classify 5 types of chemical reactions, and predict the products of a chemical reaction.
- April 20 Perform stoichiometry calculations using mole ratios.
- April 27 Determine limiting and excess reactants and percentage yield.
- May 4 Describe the Kinetic-Molecular Theory of Matter and explain properties of matter.
- May 11 Define pressure and perform conversions between different measuring scales.
- May 18 Describe the gas laws and calculate volume, pressure, and temperature.

Biology

April 6 Viral Reproduction, the Lytic or Lysogenic Cycle, viral entrance into host cells.

April 13 Discovery of DNA as the genetic material, and structure of DNA.

April 20 DNA Replication, transcription, translation, and protein synthesis

April 27 Skeletal system including the names, locations, and functions of bones

May 4 Muscular system including the location, origin, insertion, and actions

May 11 Digestive system organs location and functions

May 18 Circulatory System bloodflow throughout the heart, arteries, veins, and capillaries.