

Alignment Document

State of Tennessee And Aventa Learning Physical Science

Physical Science 2005-2007 Benchmark Blueprint

State Standard Number	State Standard Area / Description	Unit Name	Course Topic Description
0	Physical Science		
1.0	Force and Motion		
1.1	investigate the relationship between speed, velocity, and acceleration.	Forces	Newton's Second Law of Motion
		Energy and Motion	Acceleration
1.2	analyze and apply Newton's three laws of motion.	Forces	Newton's Second Law of Motion
		Forces	Newton's Third Law
		Energy and Motion	Newton's First Law of Motion
		Energy and Motion	Sir Isaac and Seat Belts
1.3	relate gravitational force to mass and distance.	Energy and Motion	Newton's Second Law of Motion
1.4	demonstrate the relationship between work, power, and machines.	Energy	Potential energy
		Simple Machines	Using machines
1.5	examine the law of conservation of momentum in everyday situations.		
2.0	Structure and Properties of Matter		
2.1	classify a material as a pure substance or a mixture	Matter	Pure Substances
		Matter	Mixtures
2.2	explore matter in terms of specific properties.	Matter	States of Matter
		Matter	Matter
3.0	Interactions of Matter		
3.1	investigate chemical and physical changes.	Matter	Changes in Matter

3.2	compare and contrast ionic and covalent bonding.	Chemical Reactions	Ionic Bonds
		Chemical Reactions	Covalent Bonds
3.3	analyze chemical equations.	Chemical Reactions	Chemical Reactions
3.4	compare and contrast acids and bases.	Chemical Reactions	Acid/Base Reactions
3.5	explore the law of conservation of mass.		
4.0	Energy		
4.1	investigate the properties and behaviors of waves.	Waves	Waves
4.2	explore and explain the nature of sound and light energy.	Waves	Waves
		Waves	Electromagnetic Radiation
4.3	examine the applications and effects of heat energy.		
4.4	probe the fundamental principles and applications of electricity.		
4.5	distinguish between nuclear fission and nuclear fusion.	Atomic Structure	Nuclear Process
4.6	investigate the law of conservation of energy.		