

SCIENCE PSSA TOPICS

Nature of Science – 50%

TOPICS: Scientific Theory v. Opinion, Scientific Inquiry/Technological Design, Support Inferences, Use evidence, Describe Effects of Results & Developments, Environmental Issues, Fundamental Concepts, Technological Advancements, Ratio, Make Inferences, Examine Changing Systems, Changing Environment, Describe Relationships, Raise Testable Questions, Design a Controlled Experiment, Interpret Data/Observations, Communicate & Support Conclusions, Design Flaws & Working Solutions, Appropriate Use, Appropriate Measurement Systems, Enhancements from Technology, Describe a System, Order in a System, System Inputs, Processes, Outputs, & Feedback, Open & Closed Loop Systems, Components of Systems, Scientists' Use of Models, Engineers Use of Models, Predict Results, Identify/Describe Patterns, Repeating Structure/Periodic Patterns

Biological Sciences – 17%

TOPICS: Structures of Living Things, Compare Organisms' Structures, Identify/Categorize Organisms, Identify Levels of Organization, Inherited Structures/Behaviors, Adaptations, Mutations, Selective Breeding/Biotechnology, Development of Adaptations, Inherited v. Acquired Traits, Genes & Traits, Flow of Energy Through an Ecosystem, Identify Major Biomes, Relationships Among Organisms, Changes in Populations, Diversity, Response to Environmental Changes, Effect of Human Activities, Renewable & Nonrenewable Resources, Waste Management, Effects of Pest Management

Physical Sciences – 17%

TOPICS: Elements, Compounds, Mixtures, Characteristic Chemical/Physical Properties, Reactants/Products of Chemical Reactions, Forms/Sources of Energy, Transfer of Energy, Energy Conversion, The Sun, Time Span of Renewability, Waste, Describe Forces, Kinetic v. Potential Energy, Mechanical Advantage

Earth and Space Sciences – 16%

TOPICS: Rock Cycle, Describe Natural Processes, Soil Types & Characteristics, Fossils, Product Transformation Process, Potential Impact of Human-Made Processes, Water Cycle, Freshwater & Saltwater Systems, Water Systems, Streams, Impact of Water Systems, Global Patterns of Movement, Weather Patterns, Patterns of Earth's Movements, Role of Gravity, Characteristics of Celestial Bodies