Pocono Mountain School District Standards Based Curriculum Map

Course/Subject Area: Physical Science **Grade Level: 7th Grade**

PA Academic Standard Alignment	PSSA Assessment Anchor Alignment	Topics	Instructional Strategies & Activities	Assessment	Mapping
		Unit 1: Nature of Science			2 Weeks
3.1.7 A B C D E 3.2.7 A B C D 4.2.7.D 4.3.7. A C 4.6.7.A	S8. A.1.1 A.1.2 A.1.3 S8. A.2.1 A.2.2 A.3.2	I.) Measurements a.) Using, interpreting & reading i.) ruler ii.) graduated cylinder iii.) triple beam balance iv.) spring scale II.) Metric conversions III.) Calculating volume, mass & density IV.) Graphs a.) reading, interpreting & constructing V.) Classifying VI.) Scientific method a.) Write a testable problem b.) Write and test a hypothesis c.) Find and interpret results d.) Draw conclusions	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.) Class discussions VII.) Lecture VIII.) Demonstrations IX.) Cooperative groping X.) Guided reading XI.) Note-taking XII.) AV resources XIII.) Drawings	I.)Test II.)Quizzes III.)Journals IV.)Labs	
		Unit 2: Introduction to Chemistry			6 Weeks
3.4.7 A	S8.C.1.1	I.) Matter a.) What is matter b.) 3 States of matter c.) Physical/ chemical properties II.) Atoms and Atomic Structure a.) Periodic table b.) Atomic Structure and Chemical Bonds c.) Models d.) Chemical Reactions e.) Substances, Mixtures, and Solubility f.) Carbon Chemistry g.) Formulas and equations	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.)Class discussion VII.) Lecture VIII.) Demonstrations IX.)Cooperative groping X.) Guided reading XI.)Note-taking	I. Test II. Quizzes III. Journals IV. Labs	

		Unit 3: Energy			8 -10 weeks
3.4.7B 4.2.7B	S8.C.2.1 S8.C.2.2	I.)Energy and Energy Resourses a.) Energy Transformation b.) Sources of Energy II.) Work and Simple Machines a.) Work and Power b.) Using Machines c.) Simple Machines III.) Thermal Energy a.) Temperature and Thermal Energy b.) Heat c.) Engines and Refrigerators IIII.) Waves a.) The Nature of Waves b.) Properties of Waves c.) Wave Interactions IV.) Sound a.) What is sound b.) Interactions of sound waves c.) Sound Quality VI.) Light, Mirrors, and Lenses a.) Properties of Light b.) The electromagnetic spectrum c.) Interactions of light waves d.) Light and color e.) Mirrors & Lenses f.) Light & Sight g.) Light & Technology VII.) Energy Resources a.) Natural Resources b.) Fossil Fuels c.) Alternative Resources VIII.) Electromagnetic Waves a.) The Nature of Electromagnetic Waves b.) The Electromagnetic Spectrum c.) Using Electromagnet Waves	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.) Class discussion VII.) Lecture VIII.) Demonstrations IX.) Cooperative groping X.) Guided reading XI.) Note-taking XII.) AV resources XIII.) Drawings	I. Test II. Quizzes III. Journals IV. Labs	

		Unit 4: Electricity and Magnetism			6 weeks
3.4.7B 4.2.7B	S8.C.2.1 S8.C.2.2	I.) Introduction to Electricity a.) Electric Charge & Static Electricity b.) Electric Current & Electrical Energy c.) Electrical Calculations d.) Electric Circuits II.) Magnetism a.) Magnets b.) Magnetism & electricity III.) Electronic Technology a.) Electronic Devices b.) Communication	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.) Class discussion VII.) Lecture VIII.) Demonstrations IX.) Cooperative groping X.) Guided reading XI.)Note-taking XII.) AV resources XIII.) Drawings	I. Test II. Quizzes III. Journals IV. Labs	
		Unit 5: Motion and Forces			6 Weeks
3.4.7.C 3.6.7.C	S8.C.3.1	I.) Motion and Momentum a.) Speed and Velocity b.) Acceleration c.) Momentum II.) Forces and Newton's Laws a.) Newton's First Law b.) Newton's Second Law c.) Newton's Third Law b.) Gravity III.) Forces and Fluids a.) Pressure b.) Measuring Buoyant Force c.) Barometric Pressure	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.) Class discussion VII.) Lecture VIII.) Demonstrations IX.) Cooperative groping X.) Guided reading XI.) Note-taking XII.) AV resources XIII.) Drawings	I. Test II. Quizzes III. Journals IV. Labs	
		Unit 6: Aeronautics			6 weeks
3.4.7.C 3.6.7.C	S8.C.3.1	I.) Flight/Aeronautics a.) Introduction to Aerospace b.) Aviation; Astronautics c.) The Impact of Aerospace; Progress; The Aerospace Manufacturing Industry d.)The Air Transport Industry II.) Hot Air balloons a.) Investigate how heat can change air b.) Observe that hot air rises c.) Construct a hot air balloon III.) Introduction to Rocketry a.) Learning About Motion and	I.) Diagram, model, interpretation, and construction II.) Chart interpretation III.) Experiment IV.) Journal writing V.) Study guides VI.) Class discussion VII.) Lecture VIII.) Demonstrations IX.) Cooperative groping X.) Guided reading	I. Test II. Quizzes III. Journals IV. Labs	

		Flight with a Model Rocket b.) Rocket Stability c.) Rocket Principles and Rocket Recovery d.) Launching Rockets Safely e.) Newton's Laws of Motion - Putting Them Together with f.) Model Rocketry	XI.) Note-taking XII.) AV resources XIII.) Drawings		