

**Schuyler Community Schools
Curriculum For Science Grade_K__**

Stands	Objective	Standard Alignment	Level	Assessment
Unifying Concepts and Processes	The learner will identify the 5 senses.	1.1.1	I,P,M	
	The learner will identify correct order or sequence of any given series.	1.1.1	I,P,M	
	The learner will identify form and function of specific characteristics of any given object.	1.1.4	I,P,M	
Physical Science	The learner will describe characteristics and properties of common materials. (e.g. Paper, wood, metal, and wool) (predict sink/float, hot/cold, heavy/light, hard/soft)	1.3.1, 1.2.1	I,P,M	
Life Science	The learner will identify characteristics of living things. (living/nonliving, what they need to live)	1.4.1	I,P,M	
	The learner will identify the life cycles of specific organisms.	1.4.2	I,P,M	
Earth Science	The learner will identify the objects in the sky. (e.g. sun, moon, stars, sun provides heat)	1.5.2, 1.2.1	I,P,M	

	The learner will describe and record seasonal and daily weather changes.	1.5.3, 1.2.1	I,P,M	

Curriculum For Science Grade _1__

Stands	Objective	Standard Alignment	Level	Assessment
Unifying Concepts and Processes	The learner will sort objects by 2 characteristics.	1.1.1	IPM	
	The learner will identify models and how they represent living things and events	1.1.2	IPM	
	The learner will identify how matter changes in constancy and measurement	1.1.3	IPM	
Science of Inquiry	The learner will ask questions about their environment based on observations. The learner will measure, collect, record, and share scientific information based on observations.	1.2.1	IPM	
Physical Science	The learner will identify matter as solids, liquids, and gases. The learner will identify matter changes (dissolving, mixing, melting, freezing, steam)	1.2.1 1.3.1	IPM IPM	
Life Science	The learner will identify the parts of a plant and how each functions.	1.3.1, 1.1.3	IPM	
Earth and Space	The learner will identify materials that cover the earth's surface to include rocks, soil, and water.	1.4.1, 1.2.1	IPM	
		1.5.1	IPM	

Science and Technology	The learner will identify common household tools and their use.	1.6.1	IPM	
	The learner will identify tools and their uses.	1.6.2	IPM	
Personal and Social Perspectiv	The learner will identify health practices for personal safety and hygiene.	1.7.1	IPM	
	The learner will observe and describe how reducing, reusing, and recycling help our environment.	1.7.2	IPM	
History and Nature of Science	The learner will recognize and describe contributions to science made by men and women.	1.8.1	IPM	

Curriculum For Science Second Grade

Stands	Objective	Standard Alignment	Level	Assessment
Unifying Concepts and Processes	TLW describe the parts that make up a system(life cycles, food chains).	4.1.1	IP	
Science as	TLW conduct science investigations. (pitch, scientific inquiry graphic organizer)	4.2.1	I	
	TLW use tools and techniques to gather and interpret data.	4.2.1	I	
	TLW communicate procedures and explanations.	4.2.1	I	

Physical Science	TLW demonstrate how sound is produced with vibrations.	4.3.2, 4.2.1	IP	
	TLW identify uses of sound energy.	4.3.2	IP	
	TLW identify magnetic poles and explain attract and repel.	4.3.3, 4.2.1	IPM	X
	TLW identify kinds of magnets and how they are used.	4.3.3	IPM	X
	TLW identify forms of energy and explain ways in which they can be used.	4.3.3	IP	
	TLW experiment with sources of heat energy in a variety of activities, in order to understand how they are used (sun, fuel, friction).	4.3.3, 4.2.1	IP	
Life Science	TLW classify animals into 3 groups (mammals, birds, fish).	4.4.1	IPM	X
	TLW explain a food chain and give examples.	4.4.2	IP	
	TLW explain life cycles.	4.4.2	IP	
	TLW identify habitats. Compare and contrast desert, polar, salt water and fresh water.	4.4.3	IPM	X
Earth and Space Science	TLW explain where air is found (soil, water, atmosphere).	4.5.1	I	
	TLW identify the water cycle.	4.5.1	I	
	TLW explain day, night, and shadows using models.	4.5.2, 4.2.1	IP	
	TLW identify sun as a source of heat and light.	4.5.2	M	X

Science and Technology in Personal and Social	TLW identify forms of natural and man-made light.	4.6.3	IP	X
	TLW describe positive and negative uses of medicines, and rules for medicines.	4.7.1	IPM	X
	TLW label and list characteristics of food pyramid/food groups.	4.7.1	IP	
	TLW list natural resources (air, water, soil, tree).	4.7.2	IP	
	TLW identify effects of air, water, and land pollution on the environment.	4.7.3	I	
History and Nature of Science	TLW name and identify scientists of different races and gender.	4.8.1	I	

Curriculum For Science Third Grade

Strands	Objective	Standard Alignment	Level	Assessment
Unifying Concepts	TLW describe skeletal and muscular system.	4.1.1	P	
	not addressed	4.1.2		
	TLW use a ruler to measure centimeters.	4.1.3	M	X
	see physical science 4.3.2	4.1.4	P	
Science as Inquiry	see physical science 4.3.1	4.2.1	I	
Physical Science	TLW compare and contrast the characteristics of three forms of matter, TLW explain how the position and motion of objects change by pushing or pulling.	4.3.1	I,M	
		4.3.2	I,P	

	not addressed	4.3.3			
Life Science	TLW diagram four main plant parts. TLW compare and contrast vertebrates	4.4.1	M,P		X
	TLW create a model of the life cycles of butterflies, frogs and plants.	4.4.2	M		X
	TLW diagram a food chain. TLW explain the interdependence of	4.4.3	I,P,M		X
Earth and Space	not addressed	4.5.1			
	TLW identify the parts of the solar system: sun, moon and planets.	4.5.2	I		
	TLW label the parts of the water cycle: evaporation, condensation and	4.5.3	M,M		X
Science and	not addressed	4.6.1			
	not addressed	4.6.2			
	covered in Social Studies	4.6.3			
Science in Personal	TLW draw and label the parts of the tooth. TLW compare and contrast	4.7.1	M,M,M,P,P,P		X
	not addressed	4.7.2			
	not addressed	4.7.3			
	not addressed	4.7.4			
History and Nature	TLW research women and men of various social and ethnic backgrounds and their	4.8.1	I,P		

Curriculum For Science Grade ____

Standards	Objective	Standard Alignment	Level	Assessment
Unifying concepts	TLW			

	List and explain the properties of magnets.	4.3.3		P M	2nd Grade
	Build different types of circuits.			I P	
	Identify characteristics of static and current electricity.			I P	
	List and explain characteristics of light.			I P	
Life Science	TLW				
	Identify the differences between plants and animals (adaptations, habitats, behaviors).	4.4.1		I P	2nd Grade
	Identify and explain examples of inherited and learned behavior.	4.4.2		I	3rd Grade
	Diagram a food chain and web.	4.4.3		P M	3rd Grade
Earth Science	TLW				
	Identify characteristics of rocks.	4.5.1		I P	4th Grade
	Identify and explain how objects move (sun, earth, moon, clouds)	4.5.2		I P	2nd Grade
	Describe changes in Earth's surface (earthquakes, erosion, volcanoes).	4.5.3		P	3rd Grade
	Describe and measure changes in weather.			P	

Science & Tech.	TLW					
	Demonstrate and construct a technological design (electricity, magnets, simple machines.	4.6.1			I P	4th Grade
	Identify tools used to solve a variety of problems.	4.6.2			P	4th Grade
	Classify objects as either natural or man-made.	4.6.3			P	2nd Grade
Science in personal and social perspectives.	TLW					
	Identify how substances are good for your body or bad for your body.	4.7.1			P	2nd & 3rd Grade
	Identify basic resources and their uses.	4.7.2			P	4th Grade
	Distinguish between natural environmental changes and human influenced changes.	4.7.3			P	4th Grade
	Research and explain how science and technology affect the quality of life.	4.7.4			P	4th Grade
History and nature of Science	TLW					

	Identify and describe how science is used in different careers.	4.8.1	P	4th Grade
	Identify and describe how science is an ongoing process.		P	

Schuylers Community Schools Curriculum For Science Grade 5

Strands	Objective	Standard Alignment	Level	Assessment
Inquiry	Choose appropriate tools to make accurate measurements and	5.2.1	P, M	
Inquiry	Plan and conduct a simple investigation.	5.2.1	I, P	
Inquiry	List the steps of the scientific method.	5.2.1	P, M	
Inquiry	Analyze and interpret results and communicate results effectively.	5.2.1	I, P	
Inquiry	Choose a variable to change in experiment that will affect the results.	5.2.1	I, P	
Physical	Identify and describe and perform Newton's 3 laws of motion.	5.3.2	I, P	
Physical	Classify 3 states of matter (solid, liquid, gas)	5.3.2	P, M	
Physical	Compare and contrast physical and chemical changes.	5.3.2	I, P	
Physical	List examples of physical and chemical changes.	5.3.2	I, P	

Physical	Define friction, and gravity	5.3.2	I, P	
Physical	Define magnetism.	5.3.2	P, M	
Physical	Differentiate among the types of energy (potential, kinetic mechanical, chemical, Identify parts of an atom and their charge. (nucleus, proton, neutron, Identify atomic charges and effect of movement of electrons.	5.3.2	I, P, M, R	
Physical		5.3.2	I, P	
Physical		5.3.2	I, P	
Physical	Describe the flow of an electric current. Compare and contrast an opened and closed circuit.	5.3.2	P, M	
Physical	Identify and describe levels of organization (cells, tissues, organs, Identify parts of cells (cell wall, cell membrane, nucleus, cytoplasm, Compare and contrast plant and animal cells	5.3.2	P, M	
Life		5.4.1	I, P	
Life		5.4.1	I, P	
Life		5.4.1	I, P	
Life	Identify and describe plant processes (photosynthesis, transpiration, Classify living things by cell structure and function	5.4.1	P	
Life		5.4.1	I, P	
Life	List the human body systems and their parts and the function of these parts:	5.4.1	I, P	
Life	List the human body systems and their parts and the function of these parts:	5.4.1	I, P	
Life		5.4.1	P, M, R	
Life	Describe how body systems interact. Investigate and describe how disease affects organisms.	5.4.1	I, P	
Life	Compare and contrast healthy and unhealthy choices. (hygiene, nutrition Identify and Describe layers of the earth. (crust, mantle, inner and outer core) Identify and describe 3 types of rocks (sedimentary, metamorphic, igneous)	5.4.1	I, P	
Life		5.4.1	I, P	
Life		5.7	I, P, M	
Earth		5.5.1	M	
Earth		5.5.1	I, P, M	

Earth	Describe the rock cycle.	5.5.1	I, P	
Earth	Compare and contrast chemical and physical weathering and describe how it	5.5.1	P	
Earth	Describe the process of fossilization.	5.5.1	P	
Earth	Recognize personal responsibilities for the earth	5.7	I, P	

Schuyler Community Schools
Curriculum For Science Grade _6_

Standards	Objective	Standard Alignment	Level	Assessment
Unifying Concepts	The learner will interpret cause and effect relationships within and between	8.1.1	M	
	The learner will collect and analyze data from an experiment.	8.1.2	M	
Science As Inquiry	The learner will identify questions and form a hypothesis based upon the	8.2.1	P, M	
	The learner will design and conduct a scientific investigation.	8.2.1	P, M	
	The learner will use appropriate tools techniques to gather, analyze and	8.2.1	P	
	The learner will communicate scientific procedures and explanations.	8.2.1	P	
Physical Science	The learner will classify physical & chemical properties.	8.3.1	P, M	
	The learner will define matter, elements, compounds, acids, & bases.	8.3.1	I, P	
	The learner will read a Periodic Table	8.3.1	I	
	The learner will explain the Law of Conservation	8.3.1	I	
	direction, speed, motion, & time as it relates to motion.	8.3.2	P	

	The learner will calculate velocity.	8.3.2	I
	The learner will explain Newton's Laws of Motion.	8.3.2	I, P
	The learner will identify the different forms of energy: chemical, electrical,	8.3.3	P, M
	The learner will explain in correct order how heat is transferred.	8.3.3	P, M
	The learner will identify the components of sound energy (waves, reflection).	8.3.3	I, P
	The learner will explain the transfer of energy from electrical to magnetic.	8.3.3	P, M
	The learner will define insulators & conductors.	8.3.3	I, P
	The learner will explain how a battery operates (electromagnetic).	8.3.3	I, P
	The learner will identify different types of rays of light.	8.3.3	I, P
	The learner will define wavelength, frequency, & reflection as it relates to	8.3.3	I, P
	The learner will identify organisms by the function it serves in an ecosystem	8.4.4	P, M
	The learner will explain how energy is transferred through photosynthesis using	8.4.4	P
	The learner will identify living and non-living parts of an ecosystem.	8.4.4	P, M
	The learner will sequence the flow of energy using an Energy Pyramid.	8.4.4	I, P, M
	The learner will sequence the levels of organization within an ecosystem.	8.4.4	I, P
	The learner will identify various biomes.	8.4.5	I, P
	The learner will describe the processes of plate tectonics, continental drift, & sea	8.5.2	I
	The learner will discuss & use the Fossil Record.	8.5.2	I
Life Science			
Earth And Space Science			

The learner will discuss and use the Geologic Time Scale.	8.5.2	I, P
The learner will identify harmful drugs and their effects on the human body.	8.7.1	P

Schuyler Community Schools

Curriculum For Science Grade 7

Strands	Objective	Standard Alignment	Level
Unifying	TLW Use classification system to identify organisms	8.1.1	P
Unifying	Collect, observe, interpret, and explain the results of experimentation	8.1.2	P
Unifying	Apply English and metric systems of measurement	8.1.3	P/M
Unifying	Analyze and demonstrate how the design of an object makes it possible for it to	8.1.4 8.6.1 8.6.4	M
Inquiry	Use the Scientific Method to create and present an experiment	8.2.1	M
Life	Describe the levels of organization	8.4.1	P/M
Life	Identify characteristics of living organisms	8.4.1	P/M
Life	Diagram, identify, and differentiate between plant and animal cells	8.4.1	M
Life	Differentiate between sexual and asexual reproduction	8.4.2	M
Life	Explain that chromosomes contain genes which influence heredity	8.4.2	M
Life	Develop a Punnet Square	8.4.2	P
Life	Identify male and female reproductive organs	8.4.2	M
Life	Investigate and describe that a population consists of all individuals of a	8.4.3 8.7.2	R

Life	Discuss how environmental changes created by humans and nature can cause	8.4.5	8.7.3	8.7.4	M
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Schuyler Community Schools

Curriculum For Science Grade _8__

Strands	Objective	Standard Alignment			Level
Unifying	TLW Use classification system to identify organisms	8.1.1			P/M
Unifying	Collect, observe, interpret, and explain the results of experimentation	8.1.2			P/M
Unifying	Apply English and metric systems of measurement	8.1.3			P/M
Inquiry	Use the Scientific Method to create and present an experiment	8.2.1			M
Earth	Describe structure of Earth	8.5.1			R
Earth	Describe soil composition/conservation	8.5.1			M/R
Earth	Discuss and use the fossil record to illustrate plate tectonics	8.5.2			P
Earth	Understand and describe the dynamics of plate tectonics	8.5.2			P
Earth	Identify minerals using Moh's hardness scale, color, etc	8.5.2			I/P
Earth	Identify processes involved in the rock cycle	8.5.2			P
Earth	Classify renewable and non-renewable resources	8.5.2			P/M
Earth	Identify atmospheric layers, weather patterns, and climate regions	8.5.2			P/M
Earth	Differentiate between inner planets and outer planets using the characteristics of each	8.5.3			P

Earth	Use the H-R diagram to predict the next stage of a star's development	8.5.3	P
Earth	Discuss Earth's movement and how it effects seasons	8.5.3	P/M
Earth	Discuss moon's movement and phases	8.5.3	P/M