

	<p>Procedures</p>	<p>solve problems & answer questions.</p> <ul style="list-style-type: none"> • Describe how to use the scientific method to solve a problem. • Explain why a controlled experiment is important. • Identify various metric units used to make measurements. • Understand how to measure different things using the metric system. • Identify & describe different kinds of microscopes. • Identify & describe the functions of the 	<ul style="list-style-type: none"> • How do you measure using the metric system? • What is a microscope? • What are the parts of the microscope? 			<p>labs</p> <ul style="list-style-type: none"> • Modeling • Videotaping - Leaf Collection
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		<p>parts of a compound microscope.</p> <ul style="list-style-type: none">• Measure length using a meter stick & metric ruler.• Measure volume of a liquid using a graduated cylinder.• Measure mass accurately using a balance and demonstrate how to read & care for a thermometer.• Measure temperature using a thermometer.• Prepare wet mount slides, focus an object under low & high power,				
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		describe the orientation & direction of movement of the object & use and care for a compound microscope correctly.				
November	<ul style="list-style-type: none"> • Cells, Tissues, & Organs 	<ul style="list-style-type: none"> • State the cell theory in your own words. • Identify the main parts of a cell & describe their functions. • Name & describe the functions of the parts of a cell. • Compare plant cells & animal cells. • Describe diffusion in cells. • Describe cell division. • Describe the 	<ul style="list-style-type: none"> • What are cells? • What are the main cell parts? • How do plant & animal cells differ? • What is diffusion? • How do cells produce new cells? • Why do cells have different shapes? • What are tissues? • What are organs & organ systems? 	<ul style="list-style-type: none"> • SCI.II.1.MS.6 • SCI.II.1.MS.4 • SCI.II.1.MS.5 • SCI.III.1.MS.1 • SCI.III.2.MS.2 • SCI.III.1.MS.6 • SCI.II.1.MS.3 • SCI.II.1.MS.1 • SCI.II.1.MS.2 	<ul style="list-style-type: none"> • Note taking • Quizzes • Test • Study guides • Project – plant cell model 	<ul style="list-style-type: none"> • Unit notes • Lecture & discussion • Transparencies • Models of cells • Construct a plant cell • Handouts

		<p>structures & functions of different kinds of cells.</p> <ul style="list-style-type: none"> • Describe the four main kinds of tissues. • Describe organs & organ systems. • Construct a model of a plant cell. 				
December	<ul style="list-style-type: none"> • Heredity & Genetics 	<ul style="list-style-type: none"> • Explain why offspring have some of the same traits as their parents. • Describe how genes & chromosomes are involved in heredity. • Describe the chemical make up of chromosomes. 	<ul style="list-style-type: none"> • What is heredity? • What are genes & chromosomes? • How do chromosomes carry traits? • Why can offspring differ from their parents? • How do genes combine in offspring? • How traits blended? 	<ul style="list-style-type: none"> • LH.III.3.MS.1 • LH.III.3.MS.2 • SCI.II.1.MS.1 • SCI.I.1.MS.2 • SCI.I.1.MS.5 • SCI.I.1.MS.6 • SCI.II.1.MS.1 • SCI.II.1.MS.2 • SCI.II.1.MS.3 • SCI.II.1.MS.4 • SCI.II.1.MS.5 	<ul style="list-style-type: none"> • Note taking • Quizzes • Study guides • Test • Lab report on graphing traits • Lab report on chance 	<ul style="list-style-type: none"> • Unit notes • Discussion & lecture • Modeling of Punnett square • Survey to collect Data • Cooperative group work for labs. • Manipulatives/hands on

		<ul style="list-style-type: none">• Explain the difference between dominant & recessive traits.• Identify what causes differences in the traits of parents & their offspring.• Describe what occurs when a dominant gene is not present in a gene pair.• Explain how chromosomes in a sperm cell determine the sex of offspring.• Describe how certain traits are inherited along with sex.• Identify some inherited diseases.• Understand	<ul style="list-style-type: none">• How is sex determined?• What are sex – linked traits?• What are some inherited diseases?• Can the environment affect traits?• How is genetics used to improve living things?• What is genetic engineering?			
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		<p>how the living conditions of an organism affect the way it develops.</p> <ul style="list-style-type: none">• Explain the different methods of controlled breeding.• Describe one method used to produce new DNA.• Compare expected results with observed results using green & yellow peas, & investigate how the principle of heredity is related to chance.• Measure hand span, record hand span of classmates, & graph the data collected				
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		<ul style="list-style-type: none">• Collect data of specific inherited traits by conducting a survey & graphing the results.				
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<p>January</p>	<ul style="list-style-type: none"> • Evolution 	<ul style="list-style-type: none"> • Explain how different kinds of fossils are formed. • Explain how the layering of rocks forms a record of life on earth. • Describe how scientists use the geologic time scale. • Define evolution. • Explain how organisms change due to adaptations & mutations. • Explain Darwin's theory of natural selection. • Understand how fossils are used to support the theory of evolution. 	<ul style="list-style-type: none"> • How are fossils formed? • What is geologic time? • What is evolution? • What is natural selection? • What evidence supports evolution? • How have organisms changed through time? 	<ul style="list-style-type: none"> • SCI.III.4.MS.1 • SCI.III.4.MS.2 • SCI.I.1.MS.1 • SCI.II.1.MS.1 • SCI.II.1.MS.2 • SCI.II.1.MS.3 • SCI.II.1.MS.4 • SCI.II.1.MS.5 • SCI.II.1.MS.6 	<ul style="list-style-type: none"> • Note taking • Quizzes • Study guides • Worksheet • Project – Create a new species & illustrate it changing through time. 	<ul style="list-style-type: none"> • Unit notes • Lecture & discussion • Physical examples • Cooperative groups • Presentation
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	<ul style="list-style-type: none"> • Classification 	<ul style="list-style-type: none"> • Explain why it is necessary to classify things. • Explain the different levels of classification. • Name & describe the 5 kingdoms of living things. • Describe the structure of a virus. • Explain why viruses are hard to classify. • Identify the characteristics of plants. • Identify characteristics used to classify animals. 	<ul style="list-style-type: none"> • What is classification? • How are living things classified? • What are the 5 kingdoms? • Are viruses living? • How are plants classified? • How are animals classified? 	<ul style="list-style-type: none"> • SCI.III.2.MS.1 • SCI.I.1.MS.1 • SCI.I.1.MS.2 • SCI.I.1.MS.6 • SCI.II.1.MS.1 • SCI.II.1.MS.2 • SCI.II.1.MS.3 • SCI.II.1.MS.4 • SCI.II.1.MS.5 • SCI.II.1.MS.6 	<ul style="list-style-type: none"> • Note taking • Quizzes • Test • Study guides • Lab report on classifying 	<ul style="list-style-type: none"> • Unit notes • Lecture & discussion • Handouts • Cooperative group work in labs • Manipulatives
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<p>February</p>	<ul style="list-style-type: none"> • Plant Structure & Function 	<ul style="list-style-type: none"> • Describe the structure of a root. • Explain the jobs of roots. • Distinguish between herbaceous & woody stems. • Explain the jobs of stems. • Describe the structure of leaves. • Classify leaves as simple or compound. • Explain the importance of photosynthesis in plants. • Recognize the flower as the reproductive organ in plants. • Identify the parts of a flower. • Describe pollination. • Explain how 	<ul style="list-style-type: none"> • What are roots? • What are stems? • What are leaves? • What is photosynthesis? • What are flowers? • How do flowering plants reproduce? • What are seeds & fruits? • What are the parts of the seed? • How do plants reproduce asexually? • What are tropisms? 	<ul style="list-style-type: none"> • SCI.III.2.MS.2 • SCI.III.2.MS.3 • SCI.I.1.MS.1 • SCI.I.1.MS.2 • SCI.I.1.MS.3 • SCI.I.1.MS.4 • SCI.I.1.MS.6 • SCI.II.1.MS.2 • SCI.II.1.MS.3 • SCI.II.1.MS.4 • SCI.II.1.MS.5 	<ul style="list-style-type: none"> • Note taking • Quizzes • Test • Study guides • Lab report on roots, stems, & leaves • Lab report on flowers • Flow chart on the life cycle of a flowering plant • Teacher observation • Demonstrate the use of applied skills, according to a predetermined rubric 	<ul style="list-style-type: none"> • Unit notes • Lecture & discussion • Handouts • Transparencies • Cooperative group work in labs • Manipulatives • Flow chart examples • Pictures
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		<p>fertilization & pollination are related.</p> <ul style="list-style-type: none">• Identify the parts of the pistil.• Explain how seeds & fruits form.• Identify the parts of a seed.• Recognize that vegetative propagation is a kind of asexual reproduction.• Identify ways that plants reproduce asexually.• Relate different kinds of stimuli to the tropisms they cause.				
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<p>March</p>	<ul style="list-style-type: none"> • Nervous System • Behavior • 5 Senses 	<ul style="list-style-type: none"> • Identify the function of the nervous system. • Name the parts of that make up the nervous system. • Identify & describe the functions of the 3 parts of the brain. • Define reflex and relate to the stimuli that causes it. • Name the 5 sense organs & their jobs. • Name & describe the functions of the parts of the eye. • Describe the jobs of the main parts of the ear. • Describe the two main kinds of behaviors. 	<ul style="list-style-type: none"> • What is the nervous system? • What are the parts of the brain? • What are reflexes? • What are sense organs? • How do you see? • How do you hear? • What is behavior? • How do you learn? 	<ul style="list-style-type: none"> • SCI.III.2.MS.4 • SCI.I.1.MS.1 • SCI.I.1.MS.2 • SCI.I.1.MS.3 • SCI.I.1.MS.4 • SCI.I.1.MS.5 • SCI.I.1.MS.6 • SCI.II.1.MS.1 • SCI.II.1.MS.2 • SCI.II.1.MS.3 • SCI.II.1.MS.4 • SCI.II.1.MS.5 • SCI.II.1.MS.6 	<ul style="list-style-type: none"> • Note taking • Quizzes • Test • Study guides • Teacher observations • Lab report on reflexes & reaction time • Lab report on our senses working together 	<ul style="list-style-type: none"> • Unit notes • Lecture & discussion • Handout • Transparencs • Cooperative groups in labs • Manipulatives
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		<ul style="list-style-type: none">• Describe the ways in which people learn.				
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April	Natural Resources	Describe cycles in nature Identify sources of pollution for air, land and water Identify water purification Distinguish between renewable and nonrenewable resources Describe conservation Describe sources of energy	What is the environment? What causes air pollution? What causes water pollution? What causes land pollution? What are natural resources? How are resources conserved? What is wildlife conservation? What are energy resources?	Strand III; Content Standard 5, Benchmarks 5 & 6 Strand V; Content Standard 2; Benchmark 3 Strand V; Content Standard 3; Benchmark 4	Chapter test Chapter 14 packet Read and respond for class participation	Key terms Research national parks Create a bulletin board on any pollution articles students bring in Project Wet Curriculum Guide and Activities Make recycled paper Recycle magazines into frames and jewelry
May	Ecology	Understand environments Describe parts of an ecosystem Recognize why things live where they do Identify producers and consumers Describe different biomes	What is ecology? What is an ecosystem? What are habitats and niches? What are limiting factors? What cycles take place in nature? What are	Strand III; Content Standard 5; Benchmarks 1,2,3,4,5,6 and 7	Ecosystem Test Succession drawing (rubric graded) Ecosystem packet Producer and Consumer exercise	Food web game Key terms Hydroponics Find areas in the US that use nuclear energy Make food webs from cut out pictures

		Recognize that ecosystems change	producers and consumers? What are food webs? What is succession? What are biomes? What is balance in an ecosystem?			
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June						
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