



Fifth Grade Science
Science Course Outline

<i>Unit & Content Objectives</i>	<i>Time</i>	<i>Activities & Methods</i>	<i>Books & Materials</i>	<i>Evaluation Techniques</i>
Life Science (Cells, Life Cycles, Plant Structures and Plant Processes) <ul style="list-style-type: none"> • Students will discover the structure, characteristics, and functions of different cells. • Students will learn the organization of cells into tissues, organs, and systems. • Students will learn about the process of photosynthesis and its role. • Students will learn about the reproduction and life cycle of plants. • Students will identify different biomes and their characteristics. • Students will learn about consumers, producers, decomposers, scavengers and the role they play in a food chain and food web. • Students will identify parts of an ecosystem and how it obtains energy. • Students will learn how an ecosystem balances. • Students will understand how organisms interact in an ecosystem. • Students will identify the different types of symbiosis. • Students will learn how some species change over time through adaptations. • Students will learn the dangers our organisms face through extinction. 	45 min/day 5 days/wk 2 semesters	<ul style="list-style-type: none"> • Student discussions • Hands-on learning activities • Cooperative learning groups 	<ul style="list-style-type: none"> • Student textbook • Hands-on materials • Various resource materials • Scotts Foresman Teacher Edition • Science composition notebook 	<ul style="list-style-type: none"> • Teacher observation • Quizzes/tests • Group participation • Content worksheets • Projects

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<p>Physical Science (Matter, Physical Change, Chemical Change, Force and Work)</p> <ul style="list-style-type: none"> • Students will learn the basics of atomic structure. • Students will describe the formation of molecules and compounds. • Students will learn about the organization of The Periodic Table and some common elements and their symbols. • Students will understand that physical change affects the properties or appearance of a substance, but does not change the makeup of the substance. • Students will understand that chemical change results in a new substance with a new molecular structure. • Students will identify the difference between kinetic and potential energy. • Students will describe the relationship between speed, velocity, and acceleration. • Students will be able to calculate force and work. • Students will classify and describe levers and inclined planes, as types of simple machines. • Students will locate and label the load, effort, and fulcrum for each of the three classes of levers. 	<p>45 min/day 5 days/wk 2 semesters</p>	<ul style="list-style-type: none"> • Student discussions • Hands-on learning activities • Cooperative learning groups <ul style="list-style-type: none"> • Labs 	<ul style="list-style-type: none"> • Student textbook • Hands-on materials • Various resource materials • Changes Teacher Edition Handbook, Grade 5 • Science composition notebook 	<ul style="list-style-type: none"> • Teacher observation • Quizzes/tests <ul style="list-style-type: none"> • Group participation • Content worksheets • Projects

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<p>Earth and Space Science (weather, solar system, and natural resources)</p> <ul style="list-style-type: none"> • Students will identify weather instruments and their processes. • Students will create a tornado and understand how it is formed. • Students will construct different types of clouds. • Students will identify different types of weather fronts. • Students will compare and contrast the motions of Earth and its moon. • Students will model Earth's tilt during its revolution around the sun and how it causes the seasons, solstices, and equinoxes. • Students will identify the different moon phases and eclipses. • Students will illustrate how tides occur and describe the differences between a spring and neap tide. • Students will identify natural resources and if they are renewable or nonrenewable. 	<p>45 min/day 5 days/wk 2 semesters</p>	<ul style="list-style-type: none"> • Student discussions • Hands-on learning activities • Cooperative learning groups • Interactive Labs 	<ul style="list-style-type: none"> • Student textbook • Hands-on materials • Various resource materials • Changes Teacher Handbook, Grade 5 • Science composition notebook 	<ul style="list-style-type: none"> • Teacher observation • Quizzes/tests <ul style="list-style-type: none"> • Group participation • Content worksheets • Projects

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Inquiry (Scientific Method) and Measurement <ul style="list-style-type: none"> • Students will understand the order of the Scientific Method. • Students will demonstrate the scientific method through labs. • Students will use the metric system to identify different measurements in labs. • Students will understand what grams, liters, and meters measure. • Students will participate in a Metric Olympics competition to illustrate measurements. • Students will use the English Standard to measure length and weight. 	5 days/wk 45 min/day Ongoing throughout the year	<ul style="list-style-type: none"> • Student discussions • Hands-on learning activities • Cooperative learning groups <ul style="list-style-type: none"> • Wacky Wednesdays 	<ul style="list-style-type: none"> • Student textbook • Hands-on materials • Various resource materials • Science composition notebook <ul style="list-style-type: none"> • Labs • Measurement Tools 	<ul style="list-style-type: none"> • Teacher observation • Quizzes/tests <ul style="list-style-type: none"> • Group participation • Content worksheets