

	<b><u>CURRICULUM</u></b> <i>End Product of Learning, “What” You Teach</i>			<b><u>INSTRUCTION</u></b> <i>Means to the End Product, “How” You Teach</i>	<b><u>TECHNOLOGY</u></b> <i>Means to Engage Students and Provide Practice</i>	<b><u>INTERVENTIONS</u></b> <i>Means to Support Struggling Students</i>	<b><u>ASSESSMENT</u></b> <i>Validation to Revise Curriculum &amp; Instruction</i>
TIME FRAME	STANDARD OR BENCHMARK	CONTENT: What we want students to “KNOW”.	SKILL: What we want students to “DO”.	Varied Teaching/Learning Strategies Resources/Comments	District Approved Software and Online Sites	District Adopted Research-Based Materials	Varied Classroom Assessment Strategies
Quarter 1	11.A.3a, 11.A.3b, 11.A.3c, 11.A.3d, 11.A.3e, 11.A.3f, 11.A.3g, 11.B.3e, 13.A.3a	<p><i>Laboratory Safety Procedures</i></p> <p>Students will:</p> <ul style="list-style-type: none"> <li>-learn general lab safety rules, clothing requirements, procedures for accidents and injuries, how to handle and dispose of chemicals, how to heat substances, and how to handle glassware and equipment</li> </ul> <p><i>The Scientific Method</i></p> <p>Students will:</p> <ul style="list-style-type: none"> <li>-learn the order and reasoning of the scientific inquiry process</li> <li>-learn how to conduct scientific experiments that control all but one</li> </ul>	<p>Students will:</p> <ul style="list-style-type: none"> <li>-apply and follow all lab safety rules and procedures</li> <li>-discuss rules with their guardians and have them sign the safety contract</li> <li>-students will sign safety contract</li> </ul> <p>-identify and sequentially order the steps of the scientific method</p> <p>-apply the scientific process to investigate the world around them through experimental design</p> <p>-utilize the “If, then, because” format to write hypotheses</p> <p>-write detailed experimental procedures</p>	<p>Strategies include:</p> <ul style="list-style-type: none"> <li>-pre-teaching activities such as brainstorming, KWL charts, anticipation guides, etc.</li> <li>-note-taking methods such as concept maps and note cards.</li> <li>-post-teaching activities such as Venn diagrams, cause and effect charts, review games, etc.</li> <li>-classroom activities, experiments and models to help students develop a further understanding of the concepts we are discussing.</li> </ul> <p>Resources include:</p> <ul style="list-style-type: none"> <li>-Science Toolkit from McDougal Littell</li> <li>-Skills Introduction and Skills Practice from PearsEducation accessed via <a href="http://www.TeacherVision.com">http://www.TeacherVision.com</a></li> <li>-Chemical Interactions from McDougal Littell</li> <li>-Additional teaching resources</li> <li>-Teacher Created Materials</li> </ul>	<ul style="list-style-type: none"> <li>-SMARTBoard activities</li> <li>-PowerPoint</li> <li>-textbook website (<a href="http://www.classzone.com">www.classzone.com</a>)</li> <li>-Microsoft Word</li> <li>- BrainPop website</li> <li>-YouTube website</li> <li>-TeacherVision website</li> </ul>	<ul style="list-style-type: none"> <li>-Differentiated activities, homework, and tests</li> <li>-Notes/reading study guides</li> </ul>	<ul style="list-style-type: none"> <li>-Chapter tests and section quizzes (publisher and teacher-made)</li> <li>-Class Discussion</li> <li>-Laboratory Data Sheets</li> <li>Experiment/Activity Follow-up Questions</li> <li>- Projects and Performance Assessments with Rubrics</li> <li>-Daily work (review activities)</li> </ul>

		<p>variable</p> <p>-learn how to collect and record data accurately using consistent measuring and recording techniques and media</p> <p>-learn how to use data manipulation tools and quantitative (e.g., mean, mode, simple equations) and representational methods (e.g., simulations, image processing) to analyze measurements</p> <p>-learn how to interpret and represent results of analysis to produce findings</p> <p>-learn how to report and display the process and results of a scientific investigation</p>	<p>-follow the steps of self created experimental procedures</p> <p>-identify and test the independent variable and control</p> <p>-identify the and collect data of the dependent variable</p> <p>-identify the operational definition</p> <p>-apply a universal method of measurement throughout an experiment</p> <p>-create coherent and organized data tables</p> <p>-use various statistical measures to present data such as mean, median, and mode</p> <p>-analyze data insightfully</p> <p>-make valid inferences of experimental results within the a context of prior knowledge</p> <p>-determine how to clearly present information in its most honest and representative form.</p> <p>-decide upon the most appropriate type of graph to represent the data.</p> <p>-create graphs to</p>				
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		<p>-learn how to evaluate test results based on established criteria, note sources of error and recommend improvements.</p>	<p>pictorially represent data</p> <p>-draw conclusions that state whether or not the original hypothesis was supported by the data</p> <p>-identify limitations of an experiment</p> <p>-identify methods to improve the experiments</p>				
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Course/Subject: Science	CURRICULUM MAP	Grade: Seventh
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	<b><u>CURRICULUM</u></b> <i>End Product of Learning, “What” You Teach</i>			<b><u>INSTRUCTION</u></b> <i>Means to the End Product, “How” You Teach</i>	<b><u>TECHNOLOGY</u></b> <i>Means to Engage Students and Provide Practice</i>	<b><u>INTERVENTIONS</u></b> <i>Means to Support Struggling Students</i>	<b><u>ASSESSMENT</u></b> <i>Validation to Revise Curriculum &amp; Instruction</i>
TIME FRAME	STANDARD OR BENCHMARK	CONTENT: What we want students to “KNOW”.	SKILL: What we want students to “DO”.	Varied Teaching/Learning Strategies Resources/Comments	District Approved Software and Online Sites	District Adopted Research-Based Materials	Varied Classroom Assessment Strategies
Quarter 2	11.A.3a, 11.A.3b, 11.A.3c, 11.A.3d, 11.A.3e, 11.A.3f, 11.B.3a, 11.B.3b, 11.B.3c, 11.B.3d, 11.B.3e, 11.B.3f, 12.C.3a, 12.C.3b, 12.F.3a, 13.A.3a, 13.A.3c, 13.B.3a, 13.B.3f	<i>Matter and Energy Chapter 1 Introduction to Matter</i>  Students will:  -learn what mass and volume are and how to measure them          -learn about the movement of atoms and molecules          -learn how atoms form compounds and mixtures	Students will:  -explain what matter is -describe how to measure the mass of matter -describe how to measure the volume of matter   -identify the smallest particles of matter -describe how atoms combine into molecules -describe how atoms and molecules move -use modeling to draw conclusions about atoms and their masses   -describe how pure and mixed matter are different -explain how atoms and elements are related -describe how atoms form compounds -observe and compare in an experiment the properties of individual substances	Strategies include: -pre-teaching activities such as brainstorming, KWL charts, anticipation guides, etc. -note-taking methods such as concept maps and note cards. -post-teaching activities such as Venn diagrams, cause and effect charts, review games, etc. -classroom activities, experiments and models to help students develop a further understanding of the concepts we are discussing.  Resources include: - <i>Matter and Energy</i> from McDougal Littell -Additional teaching resources -Teacher Created Materials	-SMARTBoard activities -ELMO -PowerPoint -iPads -Microsoft Word  -textbook website ( <a href="http://www.classzone.com">www.classzone.com</a> )  - BrainPop website <a href="http://www.brainpop.com">www.brainpop.com</a>  -YouTube website <a href="http://www.outube.com">www.outube.com</a>  -Science Spot website <a href="http://www.sciencespot.com">www.sciencespot.com</a>	-Differentiated activities, homework, and tests  -Notes/reading study guides	-Chapter tests and section quizzes (publisher and teacher-made)  -Class Discussion  -Laboratory Data Sheets Experiment/Activity Follow-up Questions  - Projects and Performance Assessments with Rubrics  -Daily work (review activities)

		<p>-learn how different states of matter behave</p> <p><i>Matter and Energy</i> <i>Chapter 2</i> <i>Properties of Matter</i></p> <p>Students will:</p> <p>-learn how to recognize physical and chemical properties</p> <p>-learn how energy is related to changes of state</p> <p>-learn how the properties of substances can be used to identify them and to separate mixtures</p>	<p>with the properties of mixtures</p> <p>-describe the different states of matter -describe how the different states of matter behave -experiment with the behavior of different liquids</p> <p>-describe physical and chemical properties -give examples of physical changes -explain that chemical changes form new substances -observe signs of chemical change in an experiment</p> <p>-describe how liquids can become solids, and solids can become liquids -explain how liquids can become gases, and gases can become liquids -determine how energy is related to changes in state</p> <p>-describe how properties can help you identify substances -explain how properties of substances can be used to separate</p>				
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Course/Subject: Science

CURRICULUM MAP

Grade: Seventh

			substances -design an experiment to separate a mixture				
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	<b><u>CURRICULUM</u></b> <i>End Product of Learning, “What” You Teach</i>			<b><u>INSTRUCTION</u></b> <i>Means to the End Product, “How” You Teach</i>	<b><u>TECHNOLOGY</u></b> <i>Means to Engage Students and Provide Practice</i>	<b><u>INTERVENTIONS</u></b> <i>Means to Support Struggling Students</i>	<b><u>ASSESSMENT</u></b> <i>Validation to Revise Curriculum &amp; Instruction</i>
TIME FRAME [By Month/Quarter]	STANDARD OR BENCHMARK	CONTENT: What we want students to “KNOW”.	SKILL: What we want students to “DO”.	Varied Teaching/Learning Strategies Resources/Comments	District Approved Software and Online Sites	District Adopted Research-Based Materials	Varied Classroom Assessment Strategies
Quarter 3	11.A.3d, 11.A.3f, 12.D.3b, 12.F.3a, 13.B.3b	<p><i>Motion and Forces Chapter 1 Motion</i></p> <p>Students will:</p> <ul style="list-style-type: none"> <li>-learn about measuring position from reference points, and about relative motion</li> <li>-learn to calculate speed and how velocity depends on speed and direction</li> <li>-learn about acceleration and how to calculate it</li> </ul> <p><i>Motion and Forces Chapter 2 Forces</i></p> <p>Students will:</p>	<p>Students will:</p> <ul style="list-style-type: none"> <li>-describe an object's position</li> <li>-describe an object's motion</li> <li>-observe changes in position through experimentation</li> <li>-calculate an object's speed</li> <li>-describe an object's velocity</li> <li>-observe through experimentation the relationship between speed and distance</li> <li>-explain how acceleration is related to velocity</li> <li>-calculate acceleration</li> <li>-measure acceleration through an experiment</li> </ul>	<p>Strategies include:</p> <ul style="list-style-type: none"> <li>-pre-teaching activities such as brainstorming, KWL charts, anticipation guides, etc.</li> <li>-note-taking methods such as concept maps and note cards.</li> <li>-post-teaching activities such as Venn diagrams, cause and effect charts, review games, etc.</li> <li>-classroom activities, experiments and models to help students develop a further understanding of the concepts we are discussing.</li> </ul> <p>Resources include:</p> <ul style="list-style-type: none"> <li>-<i>Motion and Forces</i> from McDougal Littell</li> <li>-Additional teaching resources</li> <li>-Teacher Created Materials</li> </ul>	<ul style="list-style-type: none"> <li>-SMARTBoard activities</li> <li>-ELMO</li> <li>-PowerPoint</li> <li>-iPads</li> <li>-Microsoft Word</li> <li>-textbook website (<a href="http://www.classzone.com">www.classzone.com</a>)</li> <li>- BrainPop website <a href="http://www.brainpop.com">www.brainpop.com</a></li> <li>-YouTube website <a href="http://www.outube.com">www.outube.com</a></li> <li>-Science Spot website <a href="http://www.sciencespot.com">www.sciencespot.com</a></li> </ul>	<ul style="list-style-type: none"> <li>-Differentiated activities, homework, and tests</li> <li>-Notes/reading study guides</li> </ul>	<ul style="list-style-type: none"> <li>-Chapter tests and section quizzes (publisher and teacher-made)</li> <li>-Class Discussion</li> <li>-Laboratory Data Sheets Experiment/Activity Follow-up Questions</li> <li>- Projects and Performance Assessments with Rubrics</li> <li>-Daily work (review activities)</li> </ul>

	<p>11.A.3a, 11.A.3b, 11.A.3f, 12.D.3a, 13.A.3a, 13.A.3c</p> <p>11.A.3d, 11.A.3f, 13.B.3b</p>	<p>-learn about inertia and Newton's first law of motion</p> <p>-learn and calculate force through Newton's second law of motion</p> <p>-learn about action forces and reaction forces through Newton's third law of motion</p> <p>-learn about momentum and how it is affected in collisions</p>	<p>-describe forces and how unbalanced forces change an objects motion -explain how Newton's first law allows them to predict motion -explain how inertia of an object affects its motion -design an experiment to investigate inertia</p> <p>-explain how Newton's second law relates force, mass, and acceleration -describe how force works in circular motion -hypothesize about how circular motion is affected by force</p> <p>-explain how Newton's third law relates action/reaction forces -describe how Newton's laws work together -investigate how action and reaction forces compare</p> <p>-calculate momentum -explain how momentum is affected by collisions -investigate what happens to momentum when objects collide</p>				
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<b>TIME FRAME</b>	<b>STANDARD OR BENCHMARK</b>	<b>CONTENT: What we want students to “KNOW”.</b>	<b>SKILL: What we want students to “DO”.</b>	<b>Varied Teaching/Learning Strategies Resources/Comments</b>	<b>District Approved Software and Online Sites</b>	<b>District Adopted Research-Based Materials</b>	<b>Varied Classroom Assessment Strategies</b>
Quarter 4	11.A.3a, 11.A.3b, 11.A.3c, 11.A.3f, 12.A.3c, 12.B.3b, 13.A.3a, 13.A.3c	<p><i>Diversity of Living Things Chapter 4 Invertebrate Animals</i></p> <p>Students will:</p> <ul style="list-style-type: none"> <li>-learn about sponges and other invertebrate animals</li> <li>-learn how the body plans of cnidarians are different from those of worms</li> <li>-learn about how mollusks and echinoderms meet their needs</li> <li>-learn about insects, crustaceans, and arachnids</li> </ul>	<p>Students will:</p> <ul style="list-style-type: none"> <li>-discuss the diversity of invertebrates</li> <li>-describe the six groups of invertebrates</li> <li>-explain how sponges get energy</li> <li>-observe invertebrates that live in local environments</li> <li>-describe body systems of cnidarians</li> <li>-analyze body symmetry and feeling</li> <li>-describe body systems of worms</li> <li>-describe different types of mollusks and their features</li> <li>-describe different types of echinoderms and their features</li> <li>-observe details of mollusk and echinoderm shells</li> <li>-explore arthropods, the largest group of invertebrates</li> <li>-recognize that all arthropods have exoskeletons</li> </ul>	<p>Strategies include:</p> <ul style="list-style-type: none"> <li>-pre-teaching activities such as brainstorming, KWL charts, anticipation guides, etc.</li> <li>-note-taking methods such as concept maps and note cards.</li> <li>-post-teaching activities such as Venn diagrams, cause and effect charts, review games, etc.</li> <li>-classroom activities, experiments and models to help students develop a further understanding of the concepts we are discussing.</li> </ul> <p>Resources include:</p> <ul style="list-style-type: none"> <li>-Science Toolkit from McDougal Littell</li> <li>-Skills Introduction and Skills Practice from PearsEducation accessed via <a href="http://www.TeacherVision.com">http://www.TeacherVision.com</a></li> <li>-<i>Diversity of Living Things</i> from McDougal Littell</li> <li>-Additional teaching resources</li> <li>-Teacher Created Materials</li> </ul>	<ul style="list-style-type: none"> <li>-SMARTBoard activities</li> <li>-PowerPoint</li> <li>-textbook website (<a href="http://www.classzone.com">www.classzone.com</a>)</li> <li>-Microsoft Word</li> <li>- BrainPop website</li> <li>-YouTube website</li> <li>-TeacherVision website</li> <li>-Eyewitness DVD Series</li> </ul>	<ul style="list-style-type: none"> <li>-Differentiated activities, homework, and tests</li> <li>-Notes/reading study guides</li> </ul>	<ul style="list-style-type: none"> <li>-Chapter tests and section quizzes (publisher and teacher-made)</li> <li>-Class Discussion</li> <li>-Laboratory Data Sheets Experiment/Activity Follow-up Questions</li> <li>-Dissection and practical exam.</li> <li>- Projects and Performance Assessments with Rubrics</li> <li>-Daily work (review activities)</li> </ul>

	11.A.3a, 11.A.3b, 11.A.3c, 11.A.3f, 12.A.3c, 12.B.3b, 13.A.3a, 13.A.3c	<p>-learn the location and functions of a squid's organs</p> <p><i>Diversity of Living Things Chapter 4 Vertebrate Animals</i></p> <p>Students will:</p> <p>-learn how most of the vertebrates on Earth are fish</p> <p>-learn how most amphibians hatch in water and most reptiles hatch on land</p>	<p>-describe the process of metamorphosis that insects undergo</p> <p>-observe the development process of mealworms, including molting</p> <p>-describe how a squid lives in its environment</p> <p>-describe the location and function of a squid's organs</p> <p>-dissect a squid specimen</p> <p>Students will:</p> <p>-explain that vertebrate animals have internal skeletons with backbones</p> <p>-discuss how fish are adapted for life in water</p> <p>-characterize the three main groups of fish</p> <p>-explore how the shape of a fish helps it move</p> <p>-discuss the characteristics of amphibians, vertebrates that can live on land for their entire lives</p> <p>-explain that amphibians and reptiles are ectotherms</p> <p>-observe and describe</p>				
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		<p>-learn how adaptations for flight affect how birds meet their needs</p> <p>-learn about mammals' many adaptations</p> <p>-learn the location and functions of a frog organs</p>	<p>characteristics of eggs</p> <p>-recognize that birds are endotherms</p> <p>-describe how birds' adaptations allow them to live in many environments</p> <p>-explain that adaptations that enable most birds to fly</p> <p>-recognize that mammals are endotherms</p> <p>-describe the diversity of adaptations that are found in mammals</p> <p>-explain that mammals produce milk, which is food for their young</p> <p>-make models to show how fat keeps a mammal warm</p> <p>-describe how a frog lives in its environment</p> <p>-describe the location and function of a frog's organs</p> <p>-dissect a frog specimen</p>				
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