

West Deptford Middle School Curriculum Map
Science - Grade 5

Unit/ Duration	Essential Questions	Content	Skills	Assessment	Standards
Unit 1: Scientific Method 5 Weeks	<ul style="list-style-type: none"> • Why use the Scientific Method? • How do we draw informed conclusions? • When is it appropriate to change predictions? • How do variables affect results? 	<ul style="list-style-type: none"> • Steps of scientific method: purpose, prediction, materials, procedure, conclusion • Related vocabulary (purpose, hypothesis, materials, procedure, results, conclusion, observation, prediction, educated guess, variables, controls, fair test, topic, question, data, research) 	<ul style="list-style-type: none"> • Sequence the steps of the scientific method • Describe each of the steps • Follow the steps to perform an experiment • Draw conclusions based on experimental findings and identify the impact of variables • Use related vocabulary appropriately in context 	<ul style="list-style-type: none"> • Guided, partnered and independent class experiments • Sequencing quiz • Written lab forms 	<ul style="list-style-type: none"> • SCI.5-6.5.1.6 • SCI.5-6.5.1.6.A • SCI.5-6.5.1.6.C • LA.5.CCSS.ELA-Literacy.RL.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.3 • LA.5.CCSS.ELA-Literacy.RI.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.10 • LA.5.CCSS.ELA-Literacy.W.5.2a • LA.5.CCSS.ELA-Literacy.W.5.2b • LA.5.CCSS.ELA-Literacy.W.5.2c • LA.5.CCSS.ELA-Literacy.W.5.2d • LA.5.CCSS.ELA-Literacy.W.5.2e • LA.5.CCSS.ELA-Literacy.W.5.9b • LA.5.CCSS.ELA-Literacy.W.5.10 • LA.5.CCSS.ELA-Literacy.SL.5.1 • LA.5.CCSS.ELA-Literacy.SL.5.1b • LA.5.CCSS.ELA-Literacy.SL.5.1d • LA.5.CCSS.ELA-Literacy.SL.5.2 • LA.5.CCSS.ELA-Literacy.SL.5.3 • LA.5.CCSS.ELA-Literacy.SL.5.4 • LA.5.CCSS.ELA-Literacy.SL.5.5 • LA.5.CCSS.ELA-Literacy.SL.5.6

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Unit 2: Space 5 Weeks	<ul style="list-style-type: none"> • What is our Solar System, and how do the parts of our Solar System influence one another? • How do the workings of the Solar System define our units of time? • How do the workings of the Solar System define our units of time? • What is our Solar System, and how do the parts of our Solar System influence one another? 	<ul style="list-style-type: none"> • The Sun is the central and most massive body in our solar system, which includes eight planets and their moons, dwarf planets, asteroids and comets. • The Sun's gravity holds planets and other objects in the solar system in orbit, and planets' gravity holds moons in orbit. • The Earth's rotation on its axis causes day and night; the Earth revolves around the Sun in one year; the tilt 	<ul style="list-style-type: none"> • Use scale models to represent the relative sizes of the Sun, Earth, and Moon. • Use scale models to represent the relative distance of the Sun to the Earth and the Earth to the Moon. • Compare and contrast various Solar System objects in terms of physical characteristics. • Debate how gravity is both a strong and weak force. • Illustrate Earth's rotation, 	<ul style="list-style-type: none"> • Unit 1 Assessment • Quiz – Gravity and Weightlessness • Writing Assignment: Students will describe what they think would happen on Earth if the Earth stopped spinning (there would still be gravity, however). Alternatively, students may describe what they think it would be like to live on a planet that spins twice as fast as Earth. 	<ul style="list-style-type: none"> • LA.5.CCSS.ELA-Literacy.RL.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.2 • LA.5.CCSS.ELA-Literacy.RI.5.3 • LA.5.CCSS.ELA-Literacy.RI.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.5 • LA.5.CCSS.ELA-Literacy.RI.5.7 • LA.5.CCSS.ELA-Literacy.RI.5.10 • LA.5.CCSS.ELA-Literacy.W.5.2a • LA.5.CCSS.ELA-Literacy.W.5.2b • LA.5.CCSS.ELA-Literacy.W.5.2c • LA.5.CCSS.ELA-Literacy.W.5.2d • LA.5.CCSS.ELA-Literacy.W.5.2e • LA.5.CCSS.ELA-Literacy.W.5.7 • LA.5.CCSS.ELA-Literacy.W.5.8 • LA.5.CCSS.ELA-Literacy.W.5.9b • LA.5.CCSS.ELA-Literacy.W.5.10 • LA.5.CCSS.ELA-Literacy.SL.5.1a • LA.5.CCSS.ELA-Literacy.SL.5.1b • LA.5.CCSS.ELA-Literacy.SL.5.1c

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		<p>of the Earth on its axis causes the seasons.</p> <ul style="list-style-type: none"> • Related vocabulary: scale model, satellite, axis, rotation, revolution, equator, Northern Hemisphere, Southern Hemisphere, orbit, elliptical, comet, asteroid, compare, contrast. 	<p>revolution around the Sun, and tilt on its axis in order to explain the concepts of day, night, year, and season.</p> <ul style="list-style-type: none"> • Use related vocabulary appropriately in context. 	<ul style="list-style-type: none"> • Unit 3 Assessment 	<ul style="list-style-type: none"> • LA.5.CCSS.ELA-Literacy.SL.5.1d • LA.5.CCSS.ELA-Literacy.SL.5.2 • LA.5.CCSS.ELA-Literacy.SL.5.3 • LA.5.CCSS.ELA-Literacy.SL.5.4 • LA.5.CCSS.ELA-Literacy.SL.5.5 • LA.5.CCSS.ELA-Literacy.SL.5.6 • SCI.5-6.5.4.6.A.1 • SCI.5-6.5.4.6.A.2 • SCI.5-6.5.4.6.A.3 • SCI.5-6.5.4.6.A.4
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Unit 3: Ecosystems 5 weeks	<ul style="list-style-type: none"> • How do human-made events impact an ecosystem? • How do living and nonliving things come together to form an ecosystem? • How does energy move through an ecosystem? • What are the dependent and interdependent relationships in an ecosystem? • How do human-made events impact an ecosystem? • How do living and non-living things come together to form an 	<ul style="list-style-type: none"> • Key vocabulary: ecosystem, aquarium, terrarium, interdependence, germinate, embryo, photosynthesis, carbon dioxide, oxygen, chlorophyll, duckweed, elodea, algae, consumer, producer, terrestrial, exoskeleton, molt, thorax, nymph, abdomen, cerci, ovipositor, food chain, decomposer, organism, herbivore, carnivore, omnivore, mosquito fish, territorial, fry, lateral line, gravid 	<ul style="list-style-type: none"> • Conduct, record, and organize daily observations. • Draw informed conclusions. • Make measurements. • Understand the cause/effect relationships that exist within an ecosystem. • Communicate information through writing, drawing, and discussion. • Use key vocabulary appropriately in writing and speech. • Consider trade-offs when 	<ul style="list-style-type: none"> • Ongoing observations of ecocolumns • Oral Quiz (may use notes) – after lesson on photosynthesis • Terrarium Interdependence Web • Objective Test – given before study of pollutants • Reflective Writing Assignment (at the end of the unit) 	<ul style="list-style-type: none"> • LA.5.CCSS.ELA-Literacy.CCRA.R.4 • LA.5.CCSS.ELA-Literacy.RL.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.3 • LA.5.CCSS.ELA-Literacy.RI.5.5 • LA.5.CCSS.ELA-Literacy.RI.5.7 • LA.5.CCSS.ELA-Literacy.RI.5.10 • LA.5.CCSS.ELA-Literacy.W.5.2a • LA.5.CCSS.ELA-Literacy.W.5.2b • LA.5.CCSS.ELA-Literacy.W.5.2c • LA.5.CCSS.ELA-Literacy.W.5.2d • LA.5.CCSS.ELA-Literacy.W.5.2e • LA.5.CCSS.ELA-Literacy.W.5.7 • LA.5.CCSS.ELA-Literacy.W.5.8 • LA.5.CCSS.ELA-Literacy.W.5.9a • LA.5.CCSS.ELA-Literacy.W.5.9b • LA.5.CCSS.ELA-Literacy.W.5.10 • LA.5.CCSS.ELA-Literacy.SL.5.1a • LA.5.CCSS.ELA-Literacy.SL.5.1b • LA.5.CCSS.ELA-Literacy.SL.5.1c • LA.5.CCSS.ELA-Literacy.SL.5.1d • LA.5.CCSS.ELA-Literacy.SL.5.2 • LA.5.CCSS.ELA-

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	<p>ecosystem?</p> <ul style="list-style-type: none"> • How does energy move through an ecosystem? • What are the dependent and interdependent relationships in an ecosystem? 	<p>spot, live-bearers, gastropods, radula, mantle, scavengers, ecocolumn, dependent, pollution, fossil fuels, acid, base, neutral, fertilizer, run-off, algae bloom, fair test, control, watershed, sediment, trade-off</p> <ul style="list-style-type: none"> • Process: germination, photosynthesis, the transfer of energy in various food chains, how pollution on land infiltrates and pollutes waterways 	<p>analyzing real-world pollution problems</p>		<ul style="list-style-type: none"> • Literacy.SL.5.3 • LA.5.CCSS.ELA-Literacy.SL.5.4 • LA.5.CCSS.ELA-Literacy.SL.5.5 • LA.5.CCSS.ELA-Literacy.SL.5.6 • SCI.5-6.5.3.6.B.1 • SCI.5-6.5.3.6.B.b • SCI.5-6.5.3.6.B.2 • SCI.5-6.5.3.6.C.1 • SCI.5-6.5.3.6.C.b • SCI.5-6.5.3.6.C.2 • SCI.5-6.5.3.6.C.3 • SCI.5-6.5.4.6.G.2 • SCI.5-6.5.4.6.G.3
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Unit 4: Volume and Density 5 Weeks	<ul style="list-style-type: none"> • How can we measure the volume of irregularly shaped objects? • How is density related to mass and volume? • How can we determine the identity of an unknown substance? • How can we determine the identity of an unknown substance? • How can we measure the volume of irregularly shaped objects? • How is density related to mass 	<ul style="list-style-type: none"> • Volume is how much 3-dimensional space an object takes up. • Density is a measure of mass per unit of volume. • You can determine a pure substance's identity if you know information such as said substance's density, solubility, boiling point, and melting point. • Relevant Vocabulary: volume, water displacement, graduated cylinder, meniscus, mass, scale balance, density, 	<ul style="list-style-type: none"> • Use water displacement to determine the volume of an irregularly-shaped object. • Calculate density after determining an object's mass and volume. • Determine the identity of an unknown substance. • Use relevant vocabulary appropriately in context. 	<ul style="list-style-type: none"> • Students will participate in guided and partnered class experiments. • Students will complete lab forms to report their findings. • Test on Volume, Mass, and Density – assessment of ability to manipulate density formula and identify substances based on calculated density. • Oral Vocabulary Quiz (word bank provided) 	<ul style="list-style-type: none"> • LA.5.CCSS.ELA-Literacy.CCRA.W.9 • LA.5.CCSS.ELA-Literacy.CCRA.W.10 • LA.5.CCSS.ELA-Literacy.RL.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.3 • LA.5.CCSS.ELA-Literacy.RI.5.4 • LA.5.CCSS.ELA-Literacy.RI.5.5 • LA.5.CCSS.ELA-Literacy.RI.5.7 • LA.5.CCSS.ELA-Literacy.W.5.2a • LA.5.CCSS.ELA-Literacy.W.5.2b • LA.5.CCSS.ELA-Literacy.W.5.2c • LA.5.CCSS.ELA-Literacy.W.5.2d • LA.5.CCSS.ELA-Literacy.W.5.2e • LA.5.CCSS.ELA-Literacy.W.5.7 • LA.5.CCSS.ELA-Literacy.W.5.8 • LA.5.CCSS.ELA-Literacy.SL.5.1a • LA.5.CCSS.ELA-Literacy.SL.5.1b • LA.5.CCSS.ELA-Literacy.SL.5.1c • LA.5.CCSS.ELA-Literacy.SL.5.1d • LA.5.CCSS.ELA-Literacy.SL.5.2 • LA.5.CCSS.ELA-Literacy.SL.5.3 • LA.5.CCSS.ELA-Literacy.SL.5.4 • LA.5.CCSS.ELA-

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	and volume	buoyancy, extrinsic properties, intrinsic properties, melting point, boiling point, solubility, solute, solvent, odor			Literacy.SL.5.5 <ul style="list-style-type: none">• LA.5.CCSS.ELA-Literacy.SL.5.6• SCI.5-6.5.2.6.A.1• SCI.5-6.5.2.6.A.2• SCI.5-6.5.2.6.A.3
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