

CURRICULUM MAP FOR SCIENCE GRADE 7

(Suggested timeline for introducing content and process standards - some overlap all four quarters)

SCIENCE GSEs	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
1. Life Science		<ul style="list-style-type: none"> • Biotic vs. Abiotic Factors 1.5.1 • Effect of Biotic and Abiotic Factors on an Ecosystem 1.5.2 • Biotic and Abiotic Changes 1.5.3 • Population Changes 1.5.4 • Food Chain 1.6.1 • Photosynthesis and Respiration (Formulas) 1.6.2 • Photosynthesis and Respiration (Relationship) 1.6.3 • Photosynthesis and Respiration (Complimentary Relationship) 1.7.3 • Food Web (Energy) and Energy Pyramid 1.6.4 • Food Web (Matter) 1.7.1 • Local Food Web 1.7.2 • Conservation of Matter 1.7.4 • Experiment/Activities 1.5.5, 1.6.5, 1.7.5 • Open Response Questions 1.5.6, 1.6.6, 1.7.6 • Assessment Targets 1.5, 1.6, 1.7 	<ul style="list-style-type: none"> • Niche-Specific Adaptations and Behaviors 1.1.1 • Biodiversity 1.1.2 • The Cell 1.2.1 • Parts of the Cell 1.2.2 • Characteristics of Life 1.2.3 • Heredity 1.3.1 • Asexual Reproduction 1.3.2 • Sexual Reproduction 1.3.3 • Plant vs. Animal Cells 1.4.1 • Comparing Plant and Animal Cell Functions 1.4.2 • Genetics 1.11.1 • Pedigrees 1.11.2 • Chromosomes and Genes 1.11.3 • Experiment/Activities 1.1.3, 1.2.4, 1.3.4, 1.4.4, 1.8.2, 1.8.6, 1.9.6, 1.11.4 • Open Response Questions 1.1.4, 1.2.5, 1.3.5, 1.4.5, 1.8.3, 1.8.7, 1.9.7, 1.11.5 • Assessment Targets 1.1, 1.2, 1.3, 1.9, 1.11 	<ul style="list-style-type: none"> • Classification of Organisms 1.8.1 • Classification of Species 1.8.4 • Modern Classification 1.8.5 • Random Genetic Variation 1.9.1 • Evolutionary Relationships 1.9.2 • Traits 1.9.3 • Natural Selection 1.9.4 • Extinction 1.9.5 • Experiment/Activities 1.1.3, 1.2.4, 1.3.4, 1.4.4, 1.8.2, 1.8.6, 1.9.6, 1.11.4 • Open Response Questions 1.1.4, 1.2.5, 1.3.5, 1.4.5, 1.8.3, 1.8.7, 1.9.7, 1.11.5 • Assessment Targets 1.1, 1.2, 1.3, 1.9, 1.11
2. Earth and Space Science				<ul style="list-style-type: none"> • Plate Tectonics, Continental Drift, and Pangea 2.1.1 • Slow Process Weathering 2.2.1 • Fast Processing Weathering 2.2.2 • Flowing Water and Landforms 2.2.3 • Global Climate and Energy Transfer 2.3.1

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				<ul style="list-style-type: none"> • Predicting Global Climate Change 2.3.2 • Experiment/Activities 2.1.2, 2.2.4, 2.3.3 • Open Response Questions 2.1.3, 2.2.5, 2.3.4 • Assessment Targets 2.1, 2.2, 2.3
3. Physical Science	<ul style="list-style-type: none"> • Mass, Volume, and Density 3.1.1 • Mass vs. Weight 3.8.6 • Identifying Unknown Substances 3.2.1 • Classifying Substances 3.2.2 • Law of Conservation of Mass 3.3.1 • States of Matter (Molecular Level) 3.4.1 • Heat's Effect on Molecular Motion 3.4.2 • Phase Changes 3.4.3 • Atoms and Molecules 3.5.1 • Chemical Formulas 3.5.2 • Chemical Equations 3.5.3 • Chemical Changes 3.5.4 • Physical Changes 3.5.5 • Properties of Products vs. Those of Reactants 3.5.6 • *3.8.1 Apply Speed to Molecular Motion • **3.8.4 Apply Forces to Mass vs. Weight • Experiment/Activities 3.1.2, 3.2.3, 3.3.2, 3.4.4, 3.5.7 	<ul style="list-style-type: none"> • Heat Transfer 3.7.1 • Conduction, Convection, Radiation 3.7.2 • Experiment/Activities 3.7.3 	<ul style="list-style-type: none"> • Types of Energy 3.6.2 • Conservation of Energy 3.6.3 • *3.6.1 Apply Potential vs. Kinetic • **3.9.1 Apply Light to Photosynthesis 	

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	<ul style="list-style-type: none"> • Open Response Questions 3.1.3, 3.2.4, 3.3.3, 3.4.5, 3.5.8 • Assessment Targets 3.1, 3.2, 3.3, 3.4, 3.5 	<ul style="list-style-type: none"> • Open Response Questions 3.7.4 • Assessment Targets 3.7 		
4. Inquiry	<ul style="list-style-type: none"> • Identifying the problem • Questioning and hypothesizing • Predicting • Collecting data • Designing, conducting, & critiquing investigations • Using tools and techniques safely • Representing, analyzing, and interpreting data • Using evidence to draw conclusions and communicate understanding of findings 	<ul style="list-style-type: none"> • Identifying the problem • Questioning and hypothesizing • Predicting • Collecting data • Designing, conducting, & critiquing investigations • Using tools and techniques safely • Representing, analyzing, and interpreting data • Using evidence to draw conclusions and communicate understanding of findings 	<ul style="list-style-type: none"> • Identifying the problem • Questioning and hypothesizing • Predicting • Collecting data • Designing, conducting, & critiquing investigations • Using tools and techniques safely • Representing, analyzing, and interpreting data • Using evidence to draw conclusions and communicate understanding of findings 	<ul style="list-style-type: none"> • Identifying the problem • Questioning and hypothesizing • Predicting • Collecting data • Designing, conducting, & critiquing investigations • Using tools and techniques safely • Representing, analyzing, and interpreting data • Using evidence to draw conclusions and communicate understanding of findings