

This Pacing Guide provides our OKCPS scope and sequence for the above named Science instructional program for the 2016 SY

Unit Outline		Timeframe (Suggested Start)	*Ideal % of Test Items on OCCT
<p align="center">Unit 0</p> <ul style="list-style-type: none"> ➤ Rituals and Routines ➤ Science Safety/ Laboratory Equipment ➤ Process Skills/ Science and Engineering Practices Introduction ➤ <i>(Note- Process skills and safety will continue to become embedded throughout the year)</i> 		<p>10 Days (Aug. 3)</p>	<p>P1.0-18-24% P2.0-16-20% P3.0-33-38% P4.0-27-31%</p>
<p align="center">Unit 1: Where Have All the Creatures Gone?</p> <p>Disciplinary Core Ideas (DCI)</p> <ul style="list-style-type: none"> ➤ <i>Organization for Matter and Energy Flow in organisms</i> ➤ <i>Energy in Chemical Processes and Everyday Life</i> 	<p align="center">Aligning OASS Standards</p> <ul style="list-style-type: none"> • MS-LS1-7- Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism. 	<p>31 Days (Aug. 17)</p>	<p>C3.0- 17%</p>

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<p style="text-align: center;">Unit 2: How Is the Earth Changing?</p> <p>Disciplinary Core Ideas (DCI)</p> <ul style="list-style-type: none"> ➤ <i>History of the Planet</i> ➤ <i>Earth's materials and systems</i> ➤ <i>The role of water in Earth's surface processes</i> ➤ <i>Plate tectonics and large scale system interactions</i> ➤ <i>Natural Hazards</i> ➤ <i>Human impacts on Earth's systems</i> 	<p style="text-align: center;">Aligning OASS Standards</p> <ul style="list-style-type: none"> • MS-ESS1-4- <i>Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's geologic history.</i> • MS-ESS2-1- <i>Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process</i> • MS-ESS2-2- <i>Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales</i> • MS-ESS2-3- <i>Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.</i> • MS-ESS3-2 <i>Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.</i> • MS-ESS3-4: <i>Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.</i> 	<p>40 Days (Oct. 1)</p>	<p>C4.0- 29% C5.1- 8%</p>

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<p style="text-align: center;">Unit 3: How Will It Move?</p> <p>Disciplinary Core Ideas (DCI) ➤ <i>Forces and Motion</i></p>	<p style="text-align: center;">Aligning OASS Standards</p> <ul style="list-style-type: none"> • MS-PS2-1: Apply Newton’s Third Law to design a solution to a problem involving the motion of two colliding objects • MS-PS2-2: Plan an investigation to provide evidence that the change in an object’s motion depends on the sum of the forces on the object and the mass of the object 	<p>21 Days (Jan. 4)</p>	<p>C2.0- 19%</p>
<p style="text-align: center;">Unit 4: How Does Food Provide My Body With Energy?</p> <p>Disciplinary Core Ideas (DCI) ➤ <i>Chemical Reactions</i> ➤ <i>Organization for Matter and Energy Flow in Organisms</i> ➤ <i>Energy in Chemical Processes and Everyday Life</i></p>	<p style="text-align: center;">Aligning OASS Standards</p> <ul style="list-style-type: none"> • MS-PS1-5: Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus the mass is conserved. • MS-PS1-6: Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes. • MS-LS1-7: Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism. 	<p>23 Days (Feb. 1)</p>	<p>C1.0- 19%</p>
<p style="text-align: center;">Unit 5: Test Review</p> <p>Disciplinary Core Ideas (DCI)</p>	<p>Aligning OASS Standards</p>	<p>10 Days</p>	

<p style="text-align: center;">Unit 6: Fossils and Earth’s History, OASS Extension/Enrichment</p> <p>Disciplinary Core Ideas (DCI)</p> <ul style="list-style-type: none"> ➤ Evidence of common ancestry and diversity ➤ Natural Resources ➤ Structures and properties of matter ➤ Chemical reactions ➤ Wave properties ➤ Electromagnetic Radiation ➤ Information technologies and instrumentation 	<p style="text-align: center;">Aligning OASS Standards</p> <ul style="list-style-type: none"> • MS-LS4-1: Analyze and interpret data for patterns in the fossil record that document the existence diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past. • MS-LS4-2: Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer ancestral relationships. • MS-ESS3-1: Construct a scientific explanation based on evidence for how the uneven distributions of Earth’s mineral, energy, and groundwater resources are the result of past and current geoscience processes. • MS-PS1-3: Gather and make sense of information to describe that synthetic materials come from natural resources and impact society. • MS-PS4-1: Use mathematical representations to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. • MS-PS4-2: Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. • MS-PS4-3: Integrate qualitative scientific and technical information to support the claim that digitized signals (sent as wave pulses) are a more reliable way to encode and transmit information.* 	<p style="text-align: center;">15 Days + Testing Window Extras</p>	
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