

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

Adopted Instructional Program: Activate Learning IQWST

Unit Outline		Timeframe for Each Unit
<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 <p><i>(Note- Process skills and safety will continue to become embedded throughout the year)</i></p>		5 Days
<p align="center">Unit 1</p> <p align="center">PS1 – Can I believe my eyes?</p> <p align="center"><i>light waves and interactions with matter</i></p> <p><u>Core Concepts</u></p> <ul style="list-style-type: none"> ➤ How does light allow me to see? ➤ What happens when light reaches an object? ➤ How can light have different colors? ➤ Is there light I cannot see? 	<p align="center">Aligning OASS Standards</p> <ul style="list-style-type: none"> ✓ MS-LS1-8 Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories ✓ MS-ESS1-1 Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of the lunar phases, eclipses of the sun and moon, and seasons 	33 Days

Unit Outline	Aligning Standards	Timeframe for each Unit
<p>Unit 2 CHEM2 – How can I make new stuff from old stuff? <i>chemical reactions and conservation of matter</i></p> <p><u>Core Concepts</u></p> <ul style="list-style-type: none"> ➤ How is stuff the same and different? ➤ How can I make new substances? ➤ Do new substances always come from old substances? 	<p>Aligning OASS Standards</p> <ul style="list-style-type: none"> ✓ MS-PS1-1 Develop a model to describe the atomic composition of simple molecules and extended structures ✓ MS-PS1-2 Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred 	<p>36 Days <i>(end of 2nd 9 weeks)</i></p>
<p>Unit 3 ESS2 – What makes the weather change? <i>atmospheric processes in weather and climate</i></p> <p><u>Core Concepts</u></p> <ul style="list-style-type: none"> ➤ What causes a storm? ➤ Why is weather different from place to place? 	<p>Aligning OASS Standards</p> <ul style="list-style-type: none"> ✓ MS-ESS1-1 Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of the lunar phases, eclipses of the sun and moon, and seasons ✓ MS-ESS2-5 Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions ✓ MS=ESS2-6 Develop and use a model to describe how unequal heating and rotation of the Earth causes patterns of atmospheric and oceanic circulation that determine regional climates 	<p>30 Days</p>

Unit Outline	Aligning Standards	Timeframe for each Unit
<p style="text-align: center;">Unit 4</p> <p>LS3 – Why do organisms look the way they do?</p> <p style="text-align: center;"><i>heredity and natural selection</i></p> <p><u>Core Concepts</u></p> <ul style="list-style-type: none"> ➤ Why do I look the way I do? ➤ How does the inside affect the outside? ➤ Why does variation matter? <p>Add 2 days for this standard under variation:</p> <p>MS-LS4-3 Analyze displays of pictorial data to compare patterns of similarities in the embryological development across multiple species to identify relationships not evident in the fully formed taxonomy</p>	<p style="text-align: center;">Aligning OASS Standards</p> <ul style="list-style-type: none"> ✓ MS-LS3-1 Develop and use a model to describe why structural changes to genes (mutations) located on chromosomes may affect proteins and may result in harmful, beneficial, or natural effects to the structure and function of the organism ✓ MS-LS3-2 Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation ✓ MS-LS4-4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment ✓ MS-LS4-5 Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms ✓ MS-LS4-6 Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time 	<p>42 Days</p>
<p>Unit 5</p> <p>Review, enrich, cool stuff</p>		<p>15 Days</p>