

**Youngstown City Schools
Grade 7 Science Pacing Guide
Grading Period 4**

Strand/ Content Statement	Duration	Clear Learning Targets	Curriculum Resources	Vocabulary/Concepts
<p>EARTH SCIENCE</p> <p>The relative patterns of motion and positions of the Earth, moon, and sun cause solar and lunar eclipses, tides, and phases of the moon. (7.ESS.4)</p>	<p>Weeks 1-3</p>	<ul style="list-style-type: none"> - explain that the Earth and its solar system are a part the Milky Way Galaxy, which are a part of the universe. - construct a model that represents the position of the moon, Earth and sun during the moon phases. -recognize the different phases of the moon. - explain what causes the phases of the moon. -identify the positions of the Earth, moon and sun during the moon phase and what the moon looks like from Earth from those locations. - construct a model of the sun, earth and moon to illustrate high and low tides. -use a model to analyze when and what causes high and low tides. -create a data chart and graph to predict high and low tide occurrences. - identify and explain the causes for lunar and solar eclipses. -explain why certain places around the world will experience a lunar and or solar eclipse. 	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> • Moon Phase Mania • Timely Tides • Experiencing Eclipses <p><u>Holt Series Science Textbook:</u></p> <ul style="list-style-type: none"> • Earth in Space • Gravity and Motion • Phases, Eclipses & Tides • Earth's Moon • Tides • Phases, Eclipses & Tides • Earth in Space • Gravity and Motion • Phases, Eclipses and Tides <p>Explorelearning.com-Gizmos:</p> <ul style="list-style-type: none"> • Ocean Tides • Tides • 3D Eclipse • 2D Eclipse • Penumbra Effect <p><u>Discovery Education:</u> http://www.discoveryeducation.com</p> <p><u>Ohio Department of Education - Science:</u> http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</p> <p><u>AIR Practice Site</u></p>	<p>Angle Annular Axis Corona Crescent Cyclical Eclipse Full Moon Galaxy Gibbous Gravitational forces Gravitational Pull Gravity Hybrid Lunar eclipse Milky Way Neap New Moon Orbit Partial Path of Totality Penumbra Phases Position Reflection Revolution Revolution Rotation Solar eclipse Sphere Spring Tide Tilt Totality Umbr Waning Waxing</p>

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<p style="text-align: center;">LIFE SCIENCE</p> <p style="text-align: center;">Matter is transferred continuously between one organism to another and between organisms and their physical environments. (7.LS.1)</p>	<p style="text-align: center;">Weeks 4-6</p>	<p style="text-align: center;">"I Can..."</p> <ul style="list-style-type: none"> -distinguish between photosynthesis and cellular respiration -identify photosynthesis and respiration using chemical formulas - carry out experiments that illustrate similarities and differences in photosynthesis and cellular respiration 	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> • Photosynthesis and Respiration <p><u>Holt Series Science Textbook:</u></p> <p><u>On-line Simulations:</u></p> <ul style="list-style-type: none"> • Nova Illuminating Photosynthesis <p><u>Discovery Education:</u> http://www.discoveryeducation.com</p> <p><u>Ohio Department of Education - Science:</u> http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</p> <p>AIR Practice Site</p>	<p>Biomass Photosynthesis Respiration Sustainability</p>
<p style="text-align: center;">LIFE SCIENCE</p> <p style="text-align: center;">In any particular biome, the number, growth and survival of organisms and populations depend on biotic and abiotic factors. (7.LS.2)</p>	<p style="text-align: center;">Weeks 7-9</p>	<p style="text-align: center;">"I Can..."</p> <ul style="list-style-type: none"> -classify biomes based on topography, soil types, precipitation, solar radiation and temperature. -explain how abiotic resources enable specific types of biotic organisms to live in a particular biome. -investigate a photo and use observations to classify them as a particular biome. Students must also be able to defend their choices with evidence. - explain how natural disasters affect an ecosystem in the short term and the long term. 	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> • Biome Basics with a Disastrous Twist <p><u>Holt Series Science Textbook:</u></p> <p><u>On-line Simulations:</u></p> <ul style="list-style-type: none"> • Gizmo: Rabbit Population • Gizmo: Prairie Ecosystem Gizmo: Forest Ecosystem • Gizmo: Food Chain <p><u>Discovery Education:</u> http://www.discoveryeducation.com</p> <p><u>Ohio Department of Education - Science:</u> http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</p> <p>AIR Practice Site</p>	<p>Abiotic Aquatic Biome Biotic Climate Ecosystem Organism Precipitation Radiation Resource Taiga Topography Tundra</p>