

**Youngstown City Schools  
Grade 7 Science Pacing Guide  
Grading Period 3**

Strand/ Content Statement	Duration	Clear Learning Targets	Curriculum Resources	Vocabulary/Concepts
<p><b>EARTH SCIENCE</b></p> <p><b>The hydrologic cycle illustrates the changing states of water as it moves through the lithosphere, biosphere, hydrosphere and atmosphere (7.ESS.1)</b></p>	<p>Weeks 1-3</p>	<p><b>"I Can..."</b></p> <ul style="list-style-type: none"> <li>- explain and describe ways that pollutants can reach water sources.</li> <li>- research water quality standards used to evaluate the quality of water.</li> <li>- conduct an investigation to determine the pH of different water samples.</li> <li>-compare similarities and differences in surface runoff in rural and urban area.</li> <li>- describe the threat of algae blooms and the effect it has on our ecosystems and lives.</li> </ul>	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> <li>• Ohio's Unique Problem</li> </ul> <p><u>Holt Series Science Textbook:</u></p> <ul style="list-style-type: none"> <li>• (Surface Water)</li> <li>• (Water Underground)</li> <li>• Using Freshwater Resources)</li> <li>• (Water to Drink)</li> </ul> <p><u>On-line Simulations:</u></p> <ul style="list-style-type: none"> <li>• Gizmo: Water Cycle</li> <li>• Gizmo: Phases of Water</li> <li>• Gizmo: Porosity</li> <li>• Gizmo: Water Pollution</li> <li>• Gizmo: Coastal Winds and Clouds</li> </ul> <p><u>Discovery Education:</u> <a href="http://www.discoveryeducation.com">http://www.discoveryeducation.com</a></p> <p><u>Ohio Department of Education - Science:</u> <a href="http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science">http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</a></p> <p><a href="#">AIR Practice Site</a></p>	<p><u>Primary</u></p> <p>Contamination Ground Water Hydrologic Cycle Permeable Porosity Surface Water</p> <p><u>Secondary</u></p> <p>Acid/Acidic Alkaline Base/Basic Evaporation Neutral Infiltration pH Level Pollution Puddling Runoff Salinity Temperature Watershed Water Quality</p>

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<p><b>EARTH SCIENCE</b></p> <p><b>The atmosphere has different properties at different elevations and contains a mixture of gases that cycle through the lithosphere, biosphere, hydrosphere, and atmosphere. (7.ESS.3)</b></p>	<p>Weeks 4-6</p>	<p><b>"I Can..."</b></p> <ul style="list-style-type: none"> <li>- determine the composition of Earth's air.</li> <li>- create and interpret data on different graphs to determine differences in our atmosphere's composition and temperature based on altitude differences.</li> <li>- describe how specific layers of the atmosphere have different traits and purposes.</li> </ul>	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> <li>• What's Up The-air? --- Atmosphere</li> </ul> <p><u>Holt Series Science Textbook:</u></p> <ul style="list-style-type: none"> <li>• The Air Around Us,</li> <li>• Air Pressure</li> <li>• Layers of the Atmosphere</li> </ul> <p><u>Discovery Education:</u> <a href="http://www.discoveryeducation.com">http://www.discoveryeducation.com</a></p> <p><u>Ohio Department of Education - Science:</u> <a href="http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science">http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</a></p> <p><a href="#">AIR Practice Site</a></p>	<p><u>Primary</u></p> <p>Atmosphere Biosphere Chemical Composition Gravity Greenhouse Gas Hydrosphere Lithosphere Ozone Temperature Water Vapor</p> <p><u>Secondary</u></p> <p>Air Pressure Altitude Barometer Density Exosphere Gas Ionosphere Mesopause Mesosphere Pressure Stratopause Stratosphere Thermosphere Tropopause Troposphere Variations Weather</p>
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**Columbus City Schools  
Grade 7 Science Pacing Guide  
Grading Period 3**

<p style="text-align: center;"><b>EARTH SCIENCE</b></p> <p style="text-align: center;"><b>Thermal-energy transfers in the ocean and the atmosphere contribute to the formation of currents, which influence global climate patterns. (7.ESS.2)</b></p>	<p style="text-align: center;">Weeks 7-9</p>	<p><b>"I Can..."</b></p> <ul style="list-style-type: none"> <li>-identify the role of the Coriolis Effect and its effects on global current and winds.</li> <li>- can create a model to show the movement of ocean water caused by surface currents.</li> <li>- explain that surface currents are created by the prevailing wind systems.</li> <li>-explain that ocean currents are affected by ocean water temperature, density and salinity.</li> <li>- create a climograph to determine how ocean currents affect land climates.</li> <li>- describe reasons why certain places in the world experience different climate and weather patterns.</li> </ul>	<p><u>Curriculum Units:</u></p> <ul style="list-style-type: none"> <li>• Understanding the C's</li> </ul> <p><u>Holt Series Science Textbook:</u></p> <ul style="list-style-type: none"> <li>• Currents and Climate</li> <li>• Winds</li> <li>• Investigating Changes in Density</li> <li>• Modeling Ocean Currents</li> <li>• Density and Salinity</li> <li>• The Shape of the Ocean Floor</li> </ul> <p><u>On-line Simulations:</u></p> <ul style="list-style-type: none"> <li>• Gizmo: Costal Winds and Clouds</li> </ul> <p><u>Discovery Education:</u> <a href="http://www.discoveryeducation.com">http://www.discoveryeducation.com</a></p> <p><u>Ohio Department of Education - Science:</u> <a href="http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science">http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</a></p> <p><a href="#">AIR Practice Site</a></p>	<p><u>Primary</u></p> <ul style="list-style-type: none"> <li>Climate</li> <li>Composition</li> <li>Density</li> <li>Pressure</li> <li>Thermal Energy</li> <li>Topography</li> </ul> <p><u>Secondary</u></p> <ul style="list-style-type: none"> <li>Anemometer</li> <li>Buoy</li> <li>Climograph</li> <li>Coriolis Effect</li> <li>Current</li> <li>El Nino</li> <li>Global Winds</li> <li>Gulf Stream</li> <li>Gyre</li> <li>Jet Stream</li> <li>Land Breeze</li> <li>Latitude</li> <li>Local Winds</li> <li>Precipitation</li> <li>Salinity</li> <li>Sea Breeze</li> <li>Temperature</li> <li>Upwelling</li> <li>Wind</li> <li>Wind-Chill Factor</li> </ul>
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