

**Youngstown City Schools
Grade 5 Science Pacing Guide
Grading Period 3**

Strand/Content Statement	Duration	Clear Learning Targets	Curriculum Resources	Vocabulary/Concepts
<p style="text-align: center;">PHYSICAL SCIENCE</p> <p>The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.</p> <p>*Topics within this content statement will be assessed on both Part I: Performance-Based Assessment and Part 2: End-Of-Year Assessment of Ohio's Next Generation Assessments for Science.</p>	<p>Weeks 1-2 (continued from 2nd Grading Period)</p>	<p>"I Can..."</p> <ul style="list-style-type: none"> - Explain the gravitational force between an object and the Earth. - Use the formula (speed=distance ÷ time) in real world situations to calculate speed. - Conduct experiments to explain how the mass of an object affects the amount of force needed to move the object. - Conduct an experiment and explain how an object will remain at rest if it is not moving, and no force acts upon it. - Identify that when a force is applied in the same direction of the object's motion, the speed will increase. - Identify that when a force is applied in the opposite direction of an object's motion, the speed will decrease. 	<p><u>Curriculum Units</u></p> <ul style="list-style-type: none"> • May the Force Be With You <p><u>Discovery Education:</u></p> <ul style="list-style-type: none"> • www.discoveryeducation.com <p><u>Other Resources:</u></p> <ul style="list-style-type: none"> • Teacher resource- <u>Picture Perfect Science Lessons Using Children's Books to Guide Inquiry, 3-6</u>, NSTA Press Using the book, <u><i>Sheep in a Jeep</i></u> by Nancy Shaw (p 181-204) <p>Website- Force, Gravity and Weight video http://www.bbc.co.uk/schools/gcsebitesize/science/edexcel_pre_2011/space/gravityforceandweightact.shtml Aspire Lesson, Activity 1 Speed http://aspire.cosmic-ray.org/Labs/KineticEnergy/</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>Amount of force applied Change in directions Change in speed Decrease Distance traveled Force Friction Gravitational force Gravity Increase Magnetism Mass Mass of object Motion of an object Movement Period of time Speed Successive unit of time Weight</p>

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<p>EARTH and SPACE SCIENCE</p> <p>Most of the cycles and patterns of motion between the Earth and sun are predictable.</p> <p>*Topics within this content statement will be assessed on both Part I: Performance-Based Assessment and Part 2: End-Of-Year Assessment of Ohio's Next Generation Assessments for Science.</p>	<p>Weeks 3-6</p>	<p>"I Can..."</p> <ul style="list-style-type: none"> - Construct a model of the Earth, Sun and Moon in relation to how they revolve and rotate. - Experiment with rays of sunlight and the Earth's tilt to understand seasons. - Explain to someone else why we have seasons and what causes day and night. - Explore different weather patterns and natural weather hazards around the world. 	<p><u>Curriculum Units</u></p> <ul style="list-style-type: none"> • Around and Around We Go! <p><u>Textbook: Macmillan Science</u></p> <p><u>Discovery Education:</u></p> <ul style="list-style-type: none"> • www.discoveryeducation.com <p><u>Other Resources:</u> <u>Picture Perfect Science Lessons Using Children's Books to Guide Inquiry, 3-6</u>, NSTA Press Using the book <i>Somewhere In the World Right Now</i> by Stacey Schuett (p. 251-263)</p> <p>Website- Earth and Moon revolving http://www.fearofphysics.com/SunMoon/sunmoon1.html</p> <p>Website- Orbit and Spin activity https://www.agiweb.org/education/NASA/tr/invest/activities/orbit_and_spin3-5.pdf</p> <p>Website- Rotation and Revolution game http://www.bbc.co.uk/schools/scienceclips/ages/9_10/earth_sun_moon.shtml</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>Angle of rays Avalanche Axis Drought Elliptical Equator Flood Globe Hemispheres Hurricane Moon Moon phases Natural disasters Orbit Revolve, revolution Rotate, rotation Seasons Sun Sunlight Tilt Tornado Tropical Cyclone Typhoon Wildfire</p>
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<p style="text-align: center;">EARTH and SPACE SCIENCE</p> <p>The sun is one of many stars that exist in the universe.</p> <p>*Topics within this content statement will <u>only</u> be assessed on Part 2: End-Of-Year Assessment of Ohio's Next Generation Assessments for Science.</p>	<p style="text-align: center;">Weeks 7-9</p>	<p style="text-align: center;">"I Can..."</p> <ul style="list-style-type: none"> - Experiment with round objects to test distances and size of stars. - Compare and contrast the stars to our closest star, the sun. - Research current and new discoveries about the stars and sun. - Explore star patterns called constellations. - Show the difference in size between the sun and Earth. 	<p><u>Curriculum Units</u></p> <ul style="list-style-type: none"> • Stars, Stars All Around <p><u>Textbook: Macmillan Science</u></p> <p><u>Discovery Education:</u></p> <ul style="list-style-type: none"> • www.discoveryeducation.com <p><u>Other Resources:</u></p> <p>Websites-</p> <p>http://starchild.gsfc.nasa.gov/docs/StarChild/StarChild.html</p> <p>http://www.kidsastronomy.com/stars.htm</p> <p><u>Ohio Department of Education - Science:</u></p> <p>http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science</p> <p>AIR Practice Site</p>	<p>Astronomy</p> <p>Atmosphere</p> <p>Constellations</p> <p>Earth</p> <p>Mythology</p> <p>Revolution</p> <p>Rotation</p> <p>Solar system</p> <p>Stars</p> <p>Sun</p> <p>Universe</p>
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