Youngstown City Schools
Grade 5 Science Pacing Guide
Grading Period 2

Strand/ Content Statement	Duration	Clear Learning Targets	Curriculum Resources	Vocabulary/Concepts
LIFE SCIENCE **Organisms perform a variety of roles in an ecosystem.** **All of the processes that take place within organisms require energy.** *Topics within these content statements 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.	Weeks 1-3 (Continued from 1st grading period)	**"I Can…"** • identify producers, consumers and decomposers in an ecosystem • identify herbivores, carnivores and omnivores – categorize organisms by how they obtain their energy – diagram energy flow through an ecosystem – identify that producers change energy from the sun and make food through a process called photosynthesis – describe and identify the process of photosynthesis – investigate a locally threatened or endangered species – create a remediation program based on investigations of a locally threatened or endangered species	Curriculum Units: See SEED (Students Exploring Ecosystem Dynamics) Section 3: Investigations into Dynamic Relationships - Good Buddies Game - Predator vs. Prey - Extinction and Remediation - Formative Assessment: Metro Park Resource Management Project Textbook: Grade 5 MacMillan Science Discovery Education: • www.discoveryeducation.com • Debbie Greenthumb: How Plants Grow 12:59 min • Real World Science:: Seeds and Plants 12:26 min (segment: Closer Look at Seeds and Germination 1:40 min)	Carnivore Commensalism Consumer Decomposer Dynamic Relationships Ecosystem Energy Energy Flow Food Chains Food Webs Herbivore Mutualism Nutrients Omnivore Organisms Parasitism Photosynthesis Predator-Prey-Relationships Producer Source of Energy Species Symbiotic Threatened or Endangered Transfer Energy Transform Energy

Youngstown City Schools
Grade 5 Science Pacing Guide
Grading Period 2

– simulate predator-prey relationships – observe satellite imaging and determine the relationship between the producers and consumers within an ecosystem – define symbiotic relationship, commensalism, mutualism and parasitism ¨- identify animals that live within each of the three main types of symbiotic relationships.	Other Resources: • Weird Friends; Unlikely Allies in the Animal Kingdom Joe Aruego and Ariane Dewey • Book-The Reason for a Flower by Ruth Heller • Book-The Lorax Dr, Seuss • Website- www.myschoolhouse.com/courses/o/1/35.asp Ohio Department of Education - Science: http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science AIR Practice Site

Youngstown City Schools
Grade 5 Science Pacing Guide
Grading Period 2

PHYSICAL SCIENCE **Light and sound are forms of energy that behave in predictable ways.** *Topics within this content statement related to **SOUND** will only be assessed on Part 2: End-Of-Year Assessment of Ohio's Next Generation Assessments for Science. *Topics within this content statement related to **LIGHT** 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.	Weeks 4 -7	**"I Can…"** - produce sound by vibrating objects. - change the pitch of the sound as it relates to the rate of vibration. - explore how sound travels through different mediums. - understand that light travels in a straight line until it interacts with an object or moves from one substance to another. -experiment to determine the difference between light that is absorbed, reflected and refracted. - experiment with temperature changes caused by light striking different surfaces. - explain that light is faster than sound.	Curriculum Units: • Introducing the Amazing World of Sound • And Then There Was Light Grade 5 Textbooks: MacMillan Science Discovery Education: • www.discoveryeducation.com Websites/Simulations: • Light http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/how_we_see_things/play/ AIR Practice Site	Sound Vocabulary Absorbed Audible sound Emitted Medium Pitch Range of Pitches Rate of Vibration Vibrating Light Vocabulary Absorbed Angle of light Concave Convex Emitted Heat Light travels Magnifying lens Prism Reflected Refracted Shadow

Youngstown City Schools
Grade 5 Science Pacing Guide
Grading Period 2

PHYSICAL SCIENCE **The amount of change in movement of an object is based on the mass of the object and the amount of force exerted.** *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.	Weeks 8-9… (will continue into 3rd Grading Period for 2 additional weeks)	**"I Can…"** - 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.	Curriculum Units • May the Force Be With You Grade 5 Textbook; MacMillan Science Discovery Education: • www.discoveryeducation.com Other Resources: Website- Force, Gravity and Weight video http://www.bbc.co.uk/bitesize/ks2/science/physical_processes/forces_action/play/ Aspire Lesson, Activity 1 Speed http://aspire.cosmic-ray.org/Labs/KineticEnergy/ Ohio Department of Education - Science: http://education.ohio.gov/Topics/Ohio-s-New-Learning-Standards/Science AIR Practice Site

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