

## Introduction

This Pennsylvania Learns iTunes U course is a collection of resources to support teaching and learning in the Grade 4 classroom. The content of this course is organized around the Grade 4 Pennsylvania Academic Standards for Science and Technology and Engineering. We believe that Pennsylvania teachers know what is needed to support their instructional design and delivery, as well as what engages students in their own learning. For these reasons, the materials and resources provided in this course were curated by teachers. This course is not a curriculum; rather, it is a collection of assets aligned to Pennsylvania Academic Standards to support teaching and learning. The topics found in this course do not need to be taught in order.

Module Title	Message	Assignment / Call to Action (200 Character Max)	Content Directions	Resource / URL	Info about the URL (published on the "i" button of a resource/ url)	Notes
<b>3.3. Earth and Space Sciences</b>	In this module, you will learn Earth's place in space, as well as properties that comprise the earth's surface and how our globe has changed over the years.					
<b>Earth Structure, Processes and Cycles: Earth Features and the Processes that Change It</b>	In this lesson, you will learn about landforms and the processes, including weathering, that change these landforms over time. 3.3.4.A1.	LEARN about the different kinds of elements that can change the Earth's surface.		<a href="https://www.youtube.com/watch?v=H2h6uXIL8gl">https://www.youtube.com/watch?v=H2h6uXIL8gl</a>		VIDEO
		LEARN about the layers of the earth.		<a href="https://www.youtube.com/watch?v=NAHY6965o08">https://www.youtube.com/watch?v=NAHY6965o08</a>		VIDEO
		EXPLORE the attributes of earth's landforms.		<a href="https://itunes.apple.com/us/app/earths-landforms-school/id835600448?mt=8">https://itunes.apple.com/us/app/earths-landforms-school/id835600448?mt=8</a>		APP: Earth's Landforms
		CREATE an instructional video that ILLUSTRATES the layers of the earth.		<a href="https://itunes.apple.com/us/app/imovie/id377298193?mt=8">https://itunes.apple.com/us/app/imovie/id377298193?mt=8</a>		iMovie
		LEARN the movement of plate tectonics.		<a href="https://www.youtube.com/watch?v=tcPghqnnTVk">https://www.youtube.com/watch?v=tcPghqnnTVk</a>		VIDEO
		LEARN about the process of weathering. ASSESS your understanding of weathering with a quiz.		<a href="https://itunes.apple.com/us/book/weathering/id960167497?mt=11">https://itunes.apple.com/us/book/weathering/id960167497?mt=11</a>		
		EXPLORE examples of weathering and erosion.		<a href="http://www.geography4kids.com/files/land_weathering.html">http://www.geography4kids.com/files/land_weathering.html</a>		
		INVESTIGATE real world examples of weathering and erosion.		<a href="https://www.youtube.com/watch?v=R-lak3Wvh9c">https://www.youtube.com/watch?v=R-lak3Wvh9c</a>		
		IDENTIFY qualities of erosion and weathering. CREATE a presentation using Explain Everything and uploading the document.		<a href="https://docs.google.com/drawings/d/18WzinauJ2cw7SiK5DUf307F-a3ukQk0ZIKEDIUcyyH0/pub?w=966&amp;h=644">https://docs.google.com/drawings/d/18WzinauJ2cw7SiK5DUf307F-a3ukQk0ZIKEDIUcyyH0/pub?w=966&amp;h=644</a>	PDF COMPLETED	

<b>Earth's Resources: Exploring and Identifying Various Kinds of Rocks</b>	In this lesson, you will explore rocks and identify various types of rock based on their properties. 3.3.4.A2.	LEARN about rocks and soil.		<a href="https://itunes.apple.com/us/book/rocks-soil/id597244595?mt=11">https://itunes.apple.com/us/book/rocks-soil/id597244595?mt=11</a>	This book has interactive pages with a quiz embedded.	
		LEARN about the 3 types of rocks and their attributes.		<a href="https://www.youtube.com/watch?v=jPgE74Vltdc">https://www.youtube.com/watch?v=jPgE74Vltdc</a>		
		EXPLORE examples of the different kinds of rocks.		<a href="http://www.sciencekids.co.nz/sciencefacts/earth/rocksandminerals.html">http://www.sciencekids.co.nz/sciencefacts/earth/rocksandminerals.html</a>	Student will use the information to create the rock cycle	
		SHARE your understanding of different types of rocks as well as the rock cycle as you CREATE an informational video.		<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>	Please feel free to use another presentation program if you so choose.	
		CONSTRUCT your own virtual world using variety of earth materials.		<a href="https://itunes.apple.com/us/app/sandbox-build-create-your/id520777858?mt=8">https://itunes.apple.com/us/app/sandbox-build-create-your/id520777858?mt=8</a>		
<b>Earth's History: Learning About Fossils</b>	In this lesson, you will learn about fossil formation as well as using fossils to compare with living creatures today. 3.3.4.A3. 3.1.4.C3.	LEARN how fossils are formed.		<a href="https://www.youtube.com/watch?v=3rkGu0BItKM">https://www.youtube.com/watch?v=3rkGu0BItKM</a>	This is questionable on Copyright - Awesome video with good details but looks like brainpop video but is not labeled as such	
		LEARN about fossils.		<a href="http://www.kidsdinos.com/palaeontology-what-are-fossils.php">http://www.kidsdinos.com/palaeontology-what-are-fossils.php</a>	Includes a video that explains about fossils.	READ with VIDEO
		EXPLORE a prehistoric dig site to discover fossils and clues to the ancient past.		<a href="https://itunes.apple.com/us/app/prehistoric-fish-bones/id977955327?mt=12">https://itunes.apple.com/us/app/prehistoric-fish-bones/id977955327?mt=12</a>		\$2.99
		PRESENT 3 facts you learned about fossils.		<a href="https://itunes.apple.com/us/app/pic-collage-photo-video-text/id448639966?mt=8">https://itunes.apple.com/us/app/pic-collage-photo-video-text/id448639966?mt=8</a>		APP: Pic Coll
		LEARN about radioactive dating.		<a href="http://www.sciencechannel.com/tv-shows/greatest-discoveries/videos/100-greatest-discoveries-plate-tectonics/">http://www.sciencechannel.com/tv-shows/greatest-discoveries/videos/100-greatest-discoveries-plate-tectonics/</a>		VIDEO

<b>Earth's History: Water</b>	In this lesson, you will learn about where various forms of water can be found on our planet, and will investigate transforming water from one state to another. 3.3.4.A4.	LEARN about the water cycle.		<a href="https://www.youtube.com/watch?v=zBnKgwnn7i4">https://www.youtube.com/watch?v=zBnKgwnn7i4</a>		
		EXPLORE the water cycle and the variables which affect it.		<a href="https://itunes.apple.com/us/app/the-water-cycle/id483114651?mt=8">https://itunes.apple.com/us/app/the-water-cycle/id483114651?mt=8</a>		
		LEARN about the location and forms of water on earth.		<a href="http://www.greenfacts.org/en/water-resources/index.htm#2">http://www.greenfacts.org/en/water-resources/index.htm#2</a>		
		INVESTIGATE the qualities of the water cycle.		<a href="http://water.usgs.gov/edu/watercycle-kids-beg.html">http://water.usgs.gov/edu/watercycle-kids-beg.html</a>		
		LEARN about earth's water distribution and ANALYZE the information graphic.		<a href="http://www.greenfacts.org/en/water-resources/images/figure-4-1.jpg">http://www.greenfacts.org/en/water-resources/images/figure-4-1.jpg</a>		
		DEMONSTRATE an understanding of earth's water. CREATE a presentation about the previous graphic.	You can save the image to your camera roll and import into your app.	<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>		
<b>Earth's History: Weather and Climate</b>	Describe basic weather elements. Identify weather patterns over time. 3.3.4.A5.	LEARN about weather fronts and how they affect weather.		<a href="https://www.youtube.com/watch?v=G7Ewqm0YHUI">https://www.youtube.com/watch?v=G7Ewqm0YHUI</a>		
		INVESTIGATE the qualities of cold and warm fronts.		<a href="https://www.youtube.com/watch?v=naarbGHoAGU">https://www.youtube.com/watch?v=naarbGHoAGU</a>		
		LEARN about what causes air pressure and its affect on the weather.		<a href="https://www.youtube.com/watch?v=aiYyCurh_SU">https://www.youtube.com/watch?v=aiYyCurh_SU</a>		
		EXPLORE different types of weather data.	As you explore the different weather maps choose one to screenshot and explain in the next activity.	<a href="https://itunes.apple.com/us/app/weather-underground-forecasts/id486154808?mt=8">https://itunes.apple.com/us/app/weather-underground-forecasts/id486154808?mt=8</a>		
		DEMONSTRATE an understanding of weather. CREATE a presentation to share your understanding.		<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>		
<b>Earth and Space Sciences: Composition and Structure</b>	In this lesson, you will explore the solar system, including the orbit of the earth, and the planets within it. 3.3.4.B1., 3.3.4.B2.	LEARN about our solar system.		<a href="https://www.youtube.com/watch?v=Qd6nLM2QIWw">https://www.youtube.com/watch?v=Qd6nLM2QIWw</a>		

		EXPLORE the orbit of earth and other attributes it has within our solar system.		<a href="http://www.planetsforkids.org/planet-earth.html">http://www.planetsforkids.org/planet-earth.html</a>		
		INTERACT with our solar system and earth's orbit and the variables that affect them.		<a href="https://itunes.apple.com/us/app/a-solar-system-journey/id444804070?mt=8">https://itunes.apple.com/us/app/a-solar-system-journey/id444804070?mt=8</a>		
		INVESTIGATE our solar system and the planets within it.		<a href="https://itunes.apple.com/app/id347546771?referrer=click%3D01dbeeb2-cdf8-46c1-b715-e027fbc86f4d">https://itunes.apple.com/app/id347546771?referrer=click%3D01dbeeb2-cdf8-46c1-b715-e027fbc86f4d</a>		

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<b>3.2. Physical Sciences: Chemistry and Physics</b>	In this module, you will discover that matter is the building blocks of life, and energy is necessary for sustaining life. You will explore various forms of energy and will uncover the changing states of matter through interactive lessons, videos, and engaging articles.					
<b>Chemistry: Properties of Matter &amp; Energy</b>	In this lesson, you will investigate the process of changing states of matter and learn more about these processes as they occur in the environment and in daily life. 3.2.4.A1, 3.2.4.A3, 3.2.4.A5	LEARN about the changing states of matter.		<a href="https://www.youtube.com/watch?v=jd0RXHfKJQ">https://www.youtube.com/watch?v=jd0RXHfKJQ</a>		
		INVESTIGATE the process and affects of changing states of matter.		<a href="http://easyscienceforkids.com/all-about-states-of-matter/">http://easyscienceforkids.com/all-about-states-of-matter/</a>		
		LEARN more about the states of matter and the changes that can occur.		<a href="http://idahoptv.org/sciencetrek/topics/matter/facts.cfm">http://idahoptv.org/sciencetrek/topics/matter/facts.cfm</a>		
		DEMONSTRATE your understanding of the changing states of matter. CREATE a presentation to share your understanding.		<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>		
		LEARN about conservation of mass.		<a href="http://cache.eb.com/new-multimedia/mp4/matter101.mp4">http://cache.eb.com/new-multimedia/mp4/matter101.mp4</a>		
<b>Chemistry: Structure of Matter</b>	In this lesson, you will learn that atoms are the building blocks of matter and will model this understanding through investigations of their attributes. 3.2.4.A2	LEARN about atoms the building block of matter.		<a href="https://www.youtube.com/watch?v=hc0EtPPpZUU">https://www.youtube.com/watch?v=hc0EtPPpZUU</a>		
		LEARN about what an atom is and how it fits into our lives.		<a href="http://www.chem4kids.com/files/atom_intro.html">http://www.chem4kids.com/files/atom_intro.html</a>		
		DISCOVER why atoms are the building blocks of matter.		<a href="http://www.chem4kids.com/files/atom_structure.html">http://www.chem4kids.com/files/atom_structure.html</a>		
		MODEL understanding of the parts of an atom. CREATE a presentation to share your understanding.		<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>	<a href="https://drive.google.com/file/d/0B99Um_mvTWdGSFYxdnVnVUpWS2s/view?usp=sharing">https://drive.google.com/file/d/0B99Um_mvTWdGSFYxdnVnVUpWS2s/view?usp=sharing</a>	

		INVESTIGATE the attributes of atoms and molecules and how modifying atoms changes them.		<a href="https://itunes.apple.com/us/app/atom-builder/id549485037?mt=8">https://itunes.apple.com/us/app/atom-builder/id549485037?mt=8</a>		
<b>Chemistry: Reactions</b>	In this lesson, you will learn about compounds and investigate the effects of combining various elements together through interactive apps. 3.2.4.A4	LEARN about compounds.		<a href="https://www.youtube.com/watch?v=avgFqINML5o">https://www.youtube.com/watch?v=avgFqINML5o</a>		
		INVESTIGATE combining elements together and applying other variables.	This is a fictional app that allows you to explore how compounds are made. Try to produce as many compounds as you can and notice what changes them.	<a href="https://itunes.apple.com/us/app/toca-lab/id748057890?mt=8">https://itunes.apple.com/us/app/toca-lab/id748057890?mt=8</a>		
		ENGAGE in the NOVA app to EXPLORE the many elements found in our world.		<a href="https://itunes.apple.com/us/app/nova-elements/id512772649?mt=8&amp;ign-mpt=uo%3D8">https://itunes.apple.com/us/app/nova-elements/id512772649?mt=8&amp;ign-mpt=uo%3D8</a>		
<b>Physics: Force &amp; Motion of Particles and Rigid Bodies</b>	In this lesson, you will investigate forces in motion as they you learn about Newton's Laws. 3.2.4.B1	LEARN about inertia and the motion of objects.	Read only the first section "Inertia and Mass".	<a href="http://www.physicsclassroom.com/class/newtlaws/Lesson-1/Inertia-and-Mass">http://www.physicsclassroom.com/class/newtlaws/Lesson-1/Inertia-and-Mass</a>		
		LEARN about Newton's Three Laws of Motion and how they are represented in the physical world.		<a href="http://www.slideshare.net/icheema/newtons-laws-of-motion-with-real-life-examples">http://www.slideshare.net/icheema/newtons-laws-of-motion-with-real-life-examples</a>		
		LEARN about work, force, energy and motion and the relationship between them.		<a href="https://www.youtube.com/watch?v=iCqm5uxc2dE">https://www.youtube.com/watch?v=iCqm5uxc2dE</a>		
		LEARN about Newton's First Law of Motion in this video demonstration.		<a href="https://www.youtube.com/watch?v=-MDILG7Znk">https://www.youtube.com/watch?v=-MDILG7Znk</a>		
		DISCOVER examples of mechanics and motion.		<a href="http://www.physics4kids.com/files/motion_intro.html">http://www.physics4kids.com/files/motion_intro.html</a>		
		LEARN about kinematics and motion. ASSESS your understanding of kinematics and motion	Read through some of the examples found on this website.	<a href="http://www.school-for-champions.com/science/motion.htm#.Vbj07pNVhBc">http://www.school-for-champions.com/science/motion.htm#.Vbj07pNVhBc</a>		
		INVESTIGATE the variables that affect forces, motion, friction and acceleration.		<a href="https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics_en.html">https://phet.colorado.edu/sims/html/forces-and-motion-basics/latest/forces-and-motion-basics_en.html</a>		



<b>Energy Storage and Transformations: Conservation Laws</b>	In this lesson, you will identify forms of kinetic and potential energy, as well as identify real-world forms of energy. 3.2.4.B2, 3.2.4.B3	LEARN about the different types of energy and IDENTIFY their real-world application.		<a href="http://www.slideshare.net/Cristinam0626/types-of-energy-10076124">http://www.slideshare.net/Cristinam0626/types-of-energy-10076124</a>	
		LEARN about kinetic and potential energy and examples of each type.		<a href="http://www.eia.gov/Kids/energy.cfm?page=about_forms_of_energy-basics-k.cfm">http://www.eia.gov/Kids/energy.cfm?page=about_forms_of_energy-basics-k.cfm</a>	
		REVIEW the different forms of energy.		<a href="http://www.eschooltoday.com/energy/kinds-of-energy/all-about-energy.html">http://www.eschooltoday.com/energy/kinds-of-energy/all-about-energy.html</a>	
		TAKE this quiz to ASSESS your understanding of energy and energy transfer.		<a href="http://www.proprofs.com/quiz-school/story.php?title=energy-transfer_1">http://www.proprofs.com/quiz-school/story.php?title=energy-transfer_1</a>	
<b>Electrical and Magnetic Energy</b>	In this lesson, you will read about magnets in everyday life, and will interact with applications to explore electrical circuits. 3.2.4.B4	LEARN about electrical circuits.		<a href="https://www.youtube.com/watch?v=VnnpLaKsqGU">https://www.youtube.com/watch?v=VnnpLaKsqGU</a>	
		LEARN about series and parallel circuits.		<a href="http://www.slideshare.net/Melodia/series-and-parallel">http://www.slideshare.net/Melodia/series-and-parallel</a>	
		LEARN about the types of electrical circuits.		<a href="https://www.youtube.com/watch?v=RQ3djios_LY8">https://www.youtube.com/watch?v=RQ3djios_LY8</a>	
		EXPLAIN both parallel and series circuits. CREATE a presentation to explain your thinking.		<a href="https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8">https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8</a>	
		LEARN about magnets, their poles, and everyday uses for them.		<a href="http://www.slideshare.net/mercedesrg/profits-of-magnetism">http://www.slideshare.net/mercedesrg/profits-of-magnetism</a>	
		EXPLORE and INTERACT with simple circuits.		<a href="https://itunes.apple.com/us/app/exploriments-electricity-simple/id490164401?mt=8">https://itunes.apple.com/us/app/exploriments-electricity-simple/id490164401?mt=8</a>	
<b>Nature of Waves Sound and Light Energy</b>	In this lesson, you will explore light and sound through video clips and engaging simulations. 3.2.4.B5	LEARN about waves.		<a href="https://edpuzzle.com/media/551040203ecc5fad037781d9">https://edpuzzle.com/media/551040203ecc5fad037781d9</a>	Link only the first 2:25
		DISCOVER amazing things that sound waves can do.		<a href="http://youtu.be/Ude8pPjawKI">http://youtu.be/Ude8pPjawKI</a>	
		LEARN about the transfer of energy through sound waves.		<a href="http://youtu.be/17tqXgvCN0E">http://youtu.be/17tqXgvCN0E</a>	



		LEARN about light.		<a href="https://www.youtube.com/watch?v=iletCKDCt_0#t=31">https://www.youtube.com/watch?v=iletCKDCt_0#t=31</a>		
		DISCOVER and ENGAGE in how waves travel.		<a href="https://phet.colorado.edu/sims/html/wave-on-a-string/latest/wave-on-a-string_en.html">https://phet.colorado.edu/sims/html/wave-on-a-string/latest/wave-on-a-string_en.html</a>		
		CONSTRUCT A MODEL to observe amplitude, wavelength, and transfer of energy.		<a href="http://www.knowitall.org/nasa/pdf/scifiles/redlight_full.pdf">http://www.knowitall.org/nasa/pdf/scifiles/redlight_full.pdf</a>	Page 19 only if possible	

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<b>Life Sciences</b>	In this module, you will explore the life cycles of plants and animals, beginning with common threads throughout each cycle, up through natural selection and heredity.					
<b>Organisms and Cells: Common Characteristics of Life</b>	In this lesson, you will discover what plants and animals need to survive in their environment, such as air, water, food and shelter. 3.1.4.A1	RESEARCH and RECORD the characteristics of mammals, reptiles, birds, amphibians, and fish.		<a href="http://www.sheppardsoftware.com/content/animals/kidscorner/kc_classification_mammals.htm">http://www.sheppardsoftware.com/content/animals/kidscorner/kc_classification_mammals.htm</a>	May need permission to use this site.	ARTICLE
		LEARN about the structures of living things.		<a href="http://www.thunderboltkids.co.za/Grade4/01-life-and-living/chapter2.html">http://www.thunderboltkids.co.za/Grade4/01-life-and-living/chapter2.html</a>	Easy to read article with accompanying photos that allow most students to read independently	ARTICLE GOOD QUALITY
		CREATE your own labeled plant.		<a href="https://itunes.apple.com/us/app/doodle-buddy-for-ipad-paint/id364201083?mt=8">https://itunes.apple.com/us/app/doodle-buddy-for-ipad-paint/id364201083?mt=8</a>		APP Doodle Buddy-
		LEARN about the function of plant structure		<a href="https://itunes.apple.com/us/itunes-u/the-amoeba-sisters/id718923638?mt=10">https://itunes.apple.com/us/itunes-u/the-amoeba-sisters/id718923638?mt=10</a>	The Amoeba Sisters provide several other podcasts to help students understand difficult science concepts.	PODCAST
		EXTEND your learning and view this time-lapse video to OBSERVE how plants move, why plants move, and how their structure helps them to survive and grow.		<a href="http://www.watchknowlearn.org/Video.aspx?VideoID=56480&amp;CategoryID=6202">http://www.watchknowlearn.org/Video.aspx?VideoID=56480&amp;CategoryID=6202</a>	Approx. a 4 minute video that would be a great lesson opener or discussion starter.	VIDEO
<b>Organisms and Cells: Energy Flow</b>	In this lesson, you will learn the basic needs of plants and animals and will describe what each needs to survive. 3.1.4.A2	LEARN the basic needs of survival for plants and animals.		<a href="https://docs.google.com/presentation/d/11HpzUf7uoG6_ju0GfmDc-C4OKDiZi_RQmBsRbnGEF/Sg/embed?slide=id.i0">https://docs.google.com/presentation/d/11HpzUf7uoG6_ju0GfmDc-C4OKDiZi_RQmBsRbnGEF/Sg/embed?slide=id.i0</a>		
		LEARN what animals need to survive.		<a href="http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/habitat">http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/habitat</a>		
		COMPLETE this Venn diagram MODEL understanding of the diets of different animals		<a href="http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/venn">http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/venn</a>		
		ASSESS understanding of previous reading as you COMPLETE pages 7 and 8 of this PDF.		<a href="http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/wildlife-all">http://ecosystems.psu.edu/youth/sftrc/lesson-plan-pdfs/wildlife-all</a>		

		REVIEW the process of photosynthesis.		<a href="https://s-media-cache-ak0.pinimg.com/736x/80/e7/8f/80e78f6b81b6ba782854e394aae64c64.jpg">https://s-media-cache-ak0.pinimg.com/736x/80/e7/8f/80e78f6b81b6ba782854e394aae64c64.jpg</a>	
		LEARN about the importance of the food chain.		<a href="http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrlpk3fchain.pdf">http://www.dec.ny.gov/docs/remediation_hudson_pdf/hrlpk3fchain.pdf</a>	
		ENGAGE in the food chain and the variables that affect it.		<a href="https://itunes.apple.com/us/app/food-web/id565839214?mt=8">https://itunes.apple.com/us/app/food-web/id565839214?mt=8</a>	
<b>Organisms and Cells: Life Cycles</b>	In this lesson, you will experience life cycles of plants and animals. You will be able to construct models of demonstrating these life cycles and will recognize that reproduction is necessary for life to continue. 3.1.4.A3, 3.1.4.A8, 3.1.4.B2	LEARN about plant reproduction.		<a href="https://itunes.apple.com/us/podcast/flowering-plant-reproduction/id718923638?i=308440746&amp;mt=2">https://itunes.apple.com/us/podcast/flowering-plant-reproduction/id718923638?i=308440746&amp;mt=2</a>	PODCAST Flowering Plant - 10
		DISCOVER some unusual life cycles. First, look at what gives birth to baby seahorse.		<a href="http://www.iflscience.com/plants-and-animals/male-seahorse-births-babies-underwater-shotgun">http://www.iflscience.com/plants-and-animals/male-seahorse-births-babies-underwater-shotgun</a>	VIDEO
		CREATE a visual display to show the steps in the life of a seahorse.		<a href="https://seahorseproject.wordpress.com/2012/01/26/the-life-cycle-of-a-seahorse/">https://seahorseproject.wordpress.com/2012/01/26/the-life-cycle-of-a-seahorse/</a>	ARTICLE
		VIEW this video of a mosquito's life cycle.		<a href="http://www.youtube.com/watch?v=sjV0JplAH78#t=89">http://www.youtube.com/watch?v=sjV0JplAH78#t=89</a>	VIDEO
		EXPLORE sea turtles adaptation and their environment.		<a href="http://www.seeturtles.org/sea-turtle-life-cycle?gclid=C1zB76G1-sECFW5o7AodyCYAAA">http://www.seeturtles.org/sea-turtle-life-cycle?gclid=C1zB76G1-sECFW5o7AodyCYAAA</a>	ARTICLE
		COMPARE and CONTRAST the life cycle of two of the creatures you have just learned about.		<a href="https://itunes.apple.com/us/app/venn-diagram/id666981188?mt=8">https://itunes.apple.com/us/app/venn-diagram/id666981188?mt=8</a>	APP Venn Diagram
		REINFORCE your understanding of the butterfly life cycle as you READ this infographic.		<a href="http://www.kidzone.ws/animals/monarchlifecycle.gif">http://www.kidzone.ws/animals/monarchlifecycle.gif</a>	
		PRACTICE identifying the life cycle of the butterfly. CREATE a presentation to share your understanding.	Go to the link, tap and hold the picture and choose "Save Image" Then open in the Explain Everything app.	<a href="http://www.kidzone.ws/animals/monarchlifecyclenowords.gif">http://www.kidzone.ws/animals/monarchlifecyclenowords.gif</a>	

<b>Organisms and Cells: Form and Function</b>	In this lesson, you will learn ways vertebrates and invertebrates adapt to survive in specific environments. 3.1.4.A5	LEARN the basics of vertebrate.		<a href="http://www.biology4kids.com/files/vert_main.html">http://www.biology4kids.com/files/vert_main.html</a>	A great assignment and the invertebrate article provided on the same website could be to create a Venn Diagram synthesizing these readings	ARTICLE
		LEARN about Invertebrates.		<a href="http://www.biology4kids.com/files/invert_main.html">http://www.biology4kids.com/files/invert_main.html</a>		ARTICLE
		EXPLORE invertebrates and vertebrates.		<a href="http://createwebquest.com/chantag/invertebrates-vs-vertebrates">http://createwebquest.com/chantag/invertebrates-vs-vertebrates</a>		
		CREATE a presentation using the notes you took about vertebrates/ invertebrates. SHARE the haikudeck with others.		<a href="https://www.haikudeck.com">https://www.haikudeck.com</a>	Can use the attached website of download an APP	
		LEARN how animals survive in the desert.		<a href="https://www.youtube.com/watch?v=hTfBSIYTG4k">https://www.youtube.com/watch?v=hTfBSIYTG4k</a>		
<b>Genetics: Heredity</b>	In this lesson, you will describe features visible in parents and children. 3.1.4.B1	LEARN about characteristics that are passed down from parent to child.		<a href="http://learn.genetics.utah.edu/content/inheritance/observable/">http://learn.genetics.utah.edu/content/inheritance/observable/</a>		
		LEARN about heredity and examples of what it is.		<a href="https://www.youtube.com/watch?v=bGiKRD5QHkl">https://www.youtube.com/watch?v=bGiKRD5QHkl</a>		
		EXPLORE characteristics that are passed down from parent to child.	Activity is found on pages 5 and 6.	<a href="http://teach.genetics.utah.edu/content/heredity/files/InventoryOfTraits.pdf">http://teach.genetics.utah.edu/content/heredity/files/InventoryOfTraits.pdf</a>		
		DISCOVER characteristics that you share with your parents.		<a href="https://www.teachervision.com/tv/printables/0876281390_127.pdf">https://www.teachervision.com/tv/printables/0876281390_127.pdf</a>		
<b>Evolution: Natural Selection</b>	In this lesson, you will learn about climate change and its effects on the plants and animals living on earth. 3.1.4.C1	LEARN about natural selection and evolution.		<a href="https://www.youtube.com/watch?v=0SCjhl86grU">https://www.youtube.com/watch?v=0SCjhl86grU</a>		
		LEARN about how climate change affects birds.		<a href="http://climatekids.nasa.gov/extreme-weather-birds/">http://climatekids.nasa.gov/extreme-weather-birds/</a>		
		LEARN about climate change.		<a href="https://www.youtube.com/watch?v=ko6GNA58YOA">https://www.youtube.com/watch?v=ko6GNA58YOA</a>		
<b>Evolution: Adaptation</b>	In this lesson, you will explore how plants and animals have adapted in order to survive on our ever-changing planet. 3.1.4.C2	LEARN about animal adaptations.		<a href="https://itunes.apple.com/us/book/adaptations/id642658736?mt=11">https://itunes.apple.com/us/book/adaptations/id642658736?mt=11</a>		

		EXPLORE how animals have adapted to extreme environments.	Much of this site you can explore. For this lesson you will have to focus on the "Adapted to extremes" section.	<a href="http://www.bbc.co.uk/nature/adaptations">http://www.bbc.co.uk/nature/adaptations</a>		
		LEARN about interesting animal and plant adaptations		<a href="https://www.youtube.com/watch?v=5WECs5-jNlc">https://www.youtube.com/watch?v=5WECs5-jNlc</a>		
		LEARN about defensive features organisms developed over time.		<a href="https://itunes.apple.com/us/book/adaptations/id642658736?mt=11">https://itunes.apple.com/us/book/adaptations/id642658736?mt=11</a>		
		EXPLORE adaption and how the environment affects them.	This is a simulated game that allows you to create and modify a creature which needs to survive their environment. Take a screenshot of your final BioBot and explain in the next activity.	<a href="https://itunes.apple.com/us/app/biobots-under-sea-rescue/id493081393?mt=8">https://itunes.apple.com/us/app/biobots-under-sea-rescue/id493081393?mt=8</a>		