This Pennsylvania Learns iTunes U course is designed to be a collection of resources to support teaching and learning in the Kindergarten and First Grade classroom. The content of this course is organized around the Kindergarten and First Grade Pennsylvania Academic Standards for Science and Technology and Engineering Education. 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 those reasons, the materials and resources provided in this course were curated by teachers. This course is not a curriculum. It is a collection of assets aligned to Pennsylvania Academic Standards to support teaching and learning.

The K – 2 courses are designed to support teaching and learning…the teaching of the teacher and the learning of the student. The TEACHING Call to Action statements support the teacher's instruction. The I CAN Call to Action statements are for students and correspond to the instructional skills taught by the teacher.

Module Title	Message	Assignment / Call to Action (200 Character Max)	Resource / URL	Info about the URL (published on the "i" button of a resource/ url)	Notes
Science As Inquiry Kindergarten	Understanding of science content is enhanced when concepts are grounded in inquiry experiences. The use of scientific inquiry will help ensure that students develop a deep understanding of science content, processes, knowledge and understanding of scientific ideas, and the work of scientists; therefore, inquiry is embedded as a strand throughout all content areas. Teaching science as inquiry provides teachers with the opportunity to help all students in grades K-12 develop abilities necessary to understand and do scientific inquiry. These are very similar across grade bands and evolve in complexity as the grade level increases.				
	Behaviors that reflect Science As Inquiry across the grade levels include: • Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.				

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Kindergarten Physical Science					
Properties of Matter	In this lesson, students identify and classify objects by observable properties of matter. In addition, students compare different kinds of materials and discuss their uses (3.2.K.A1).	TEACHING about matter.	http://www.learnplayimagine.com/2013/04/mfw-kindergarten-ww-is-for-water.html		scholastic website
		I CAN learn about matter by watching this video.	https://www.youtube.com/watch?v=dCcTSfa82yU&feature=em-share_video_user		
		I CAN discover more about matter by using this app.	https://itunes.apple.com/us/app/matter-by-kids-discover/id657404620		
		I CAN explain matter by identifying the qualities of different materials you find using this app.	https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8		
Matter and Energy	In this lesson, students learn the ways matter can change (3.2.K.A3).	TEACH the states of matter using experiments.	http://www.learnplayimagine.com/2013/04/mfw-kindergarten-ww-is-for-water.html		
		TEACHING how matter changes from one state to another.	http://www.brighthubeducation.com/pre-k-and-k-lesson-plans/61387-properties-of-matter-kindergarten-lesson-and-activity/		
		I CAN learn about the states of matter by watching this video.	https://www.youtube.com/watch?v=jmm1J2yl9tk		
		I CAN group items related to the three states of matter using popplet.	https://itunes.apple.com/us/app/popplet-lite/id364738549?mt=8		
		I CAN create a drawing to explain states of matter.	https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8		

		I CAN learn about the states of matter by listening to this song.	http://www.sciencekids.co.nz/videos/chemistry/solidliquidgassong.html		
Temperature	In this lesson, students learn how temperature can affect the body (3.2.K.B3).	TEACHING how temperature affects the body	http://www.newhavenscience.org/01weather.pdf		
		I CAN explain how temperature affects the body. SELECT the thermometers lesson.	http://lessons.e-learningforkids.org/efk/Courses/EN/Thermometer/base.htm		
Types of Interactions	In this lesson, students learn that pushes and pulls can have different strengths and directions. Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. An object sliding on a surface or sitting on a slope experiences a pull due to friction on the object due to the surface that opposes the object's motion.	TEACHING about push and pull.	https://itunes.apple.com/us/itunes-u/foss-ca-balance-motion-science/id386672087?mt=10	Chapter 2	
		I CAN use different amounts of force to move objects of different weight.	https://itunes.apple.com/us/app/max-ruby!-science-educational/id686518520?mt=8		
		I CAN identify different types of force (push/pull) and strengths of force to move objects.	http://m.sesamestreet.org/topics/stem/force-and-motion#undefined		
Unifying Themes - ENERGY	In this lesson, students learn that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow. 3.2.K.B6.	TEACHING how all living things get energy from the sun to survive.	http://eschooltoday.com/science/needs-of-living-organisms/living-organisms-need-sunlight-to-survive.html		
		I CAN sequence the order in which living things get their energy from the sun.	http://www.mollybang.com/pdfs/living_sunlight_printables_3_5.pdf		
Kindergarten- Life Science					

Qualities of Life	In this lesson, students learn about the qualities of animals. In addition, students explore, compare, and contrast qualities of animals.	TEACHING about different types of animals.	https://www.youtube.com/watch?v=FMfziR-VTPc		
		I CAN learn more about animals by exploring different animal resources.	https://itunes.apple.com/us/app/disneynature-explore/id690215614?mt=8 https://www.youtube.com/watch?v=vC2_XX0XJ6c		
		I CAN classify animals. WATCH the video to learn more about classifying animals.	https://itunes.apple.com/us/app/brainpop-jr.-movie-of-the-week/id536371867?mt=8		
		I CAN research my favorite animal and identify the animal's characteristics. DRAW your animal. TELL your friend about your animal.	https://itunes.apple.com/us/app/popplet-lite/id364738549?mt=8		
Survival	In this lesson, students learn what plants and animals need to survive and the relationship between their needs and where they live.	TEACHING plants are living organism that have certain needs to survive.	https://itunes.apple.com/us/podcast/seeds/id592750711?i=131235439&mt=2	Video that shows different seeds sprouting and growing. Use as an introductory video.	
		I CAN explain what animals need to survive.	https://itunes.apple.com/us/app/animals-!-life-science-educational/id415640056?mt=8	iTunes app. Level 1 (appearance) is free. $ $2.99 to unlock other levels (habitat and living habits)	
		I CAN tell 5 things that plants need to survive.	https://www.youtube.com/watch?v=kkqETB7Xc5g	song for student to sing about the 5 things that plants need to survive	
		I CAN take care of plants so they live a healthy life.	https://itunes.apple.com/us/app/seeds-to-plants/id954989564?mt=12	Student plants virtual sunflower seeds and is asked to make choices that will determine its survival. $$$4.99 iTunes app.	
		I CAN take care of a virtual plant so that it grows.	https://itunes.apple.com/us/app/happy-little-farmer-lite/id572422026?mt=8	iPad app for lifecycle of plants	

Stages of Life	In this lesson, students learn how different organisms change over time, that different living things change in different ways, and how these stages are important.	TEACHING life cycle of a plant.	https://itunes.apple.com/us/app/lapse-it-time-lapse-stop-motion/id539108382?mt=8	free app teacher could use to grow a plant with the class and create a time lapse video of monthly growth	
		I CAN see how a plant grows over time.	http://www.neok12.com/video/Time-Lapse-Videos/zX560a00745f517353705577.htm	Seedling changing from seed to plant in time lapse	
		TEACHING about animals	http://teacher.scholastic.com/lessonrepro/k_2theme/animals.htm		
		I CAN explain the life stages of a variety of different animals.	https://itunes.apple.com/us/app/life-stages/id937106348?mt=12 https://itunes.apple.com/us/app/animals-life-cycle-insects/id658293496?mt=8	App provides children with an understanding of different life cycles of species. $$2.99 iTunes app.	
		I CAN explain the life stages of a butterfly.	https://www.youtube.com/watch?v=E5tXk1hclwQ	Video that shows the different stages of the life cycle of a butterfly.	
		I CAN put in order the life stages of different plants and animals.	https://itunes.apple.com/us/app/life-stages-lite/id970651337?mt=8	free app where students drag the life stages of different animals and plants	
Common Characteristics of Life	In this lesson, students identify the similarities and differences of living and nonliving things. 3.1.K.A1.	TEACHING about living and non-living things.	https://www.pinterest.com/explore/living-and-nonliving/ http://www.kindergartenkindergarten.com/2012/03/a-science-mini-unit-living-and-non-living.html http://www.pbslearningmedia.org/resource/tdc02.sci.life.colt.lp_living/living-vs-nonliving/		

		I CAN explain the difference between living and nonliving things.	https://www.youtube.com/watch?v=lB0WF6P7sSk https://www.youtube.com/watch?v=p51FiPO2_kQ https://www.youtube.com/watch?v=9T8RE5ujg_A		
		I CAN identify living and non-living things.	https://itunes.apple.com/us/app/pic-collage-photo-video-text/id448639966?mt=8 http://learninginhand.com/stickaroundblog/2014/1/24/living-nonliving-things		
Heredity	In this lesson, students learn how young animals resemble their parents and other animals of the same kind. 3.1.K.B1.	TEACHING how young animals resemble their parents and other animals of the same kind.	https://itunes.apple.com/us/course/eggs-babies-growing/id785902888?i=217614224&mt=2 http://mrspollock.angelfire.com/how-are-babies-like-their-parents.html http://www.kidsdiscover.com/teacherresources/baby-animals-science-lesson/	free book for iPad	
		I CAN match baby animals to their mother	https://itunes.apple.com/us/course/animal-and-baby-matchup/id785902888?i=217614226&mt=2	free app	
		TEACHING how babies look different than their parents.	http://thevagy-animals-grow.blogspot.com/2011/11/animals-look-different-from-their.html http://www.pixable.com/article/weird-baby-animals	blog with ideas to teach concept	

		I CAN explain the similarities and differences between baby and adult animals.	https://www.youtube.com/watch?v=fk7cQUFVyTk	video on Youtube	
Kindergarten: Earth Structure, Processes and Cycles					
Weather and Climate	In this lesson, students learn patterns and variations in local weather and the purpose of weather forecasting, for example, how to prepare for and respond to severe weather. (3.3.K.A4., 3.3.K.A5.)	TEACHING about patterns and variations in local weather and the purpose of weather forecasting.	https://itunes.apple.com/us/itunes-u/foss-air-weather-science-stories/id386661889?mt=10 https://itunes.apple.com/us/book/our-favorite-weather/id980320149?mt=11 http://kindergartensmiles.blogspot.com/2012/03/weather.html http://beyondpenguins.ehe.osu.edu/issue/weather-and-climate-from-home-to-the-poles/hands-on-science-and-literacy-lessons-about-weather-and-climate		
		I CAN record the weather on a chart.	https://www.teachervision.com/tv/printables/orange/ss-102.pdf		
		I CAN learn about different types of weather.	https://itunes.apple.com/us/app/weather-storybook-free/id954766682?mt=8		
		I CAN pick the right picture to match today's weather data.	https://itunes.apple.com/us/app/yowindow-free-weather/id799653744?mt=8		
		TEACHING natural weather topics, such as hurricanes, tornadoes, thunderstorms...	http://www.weatherwhizkids.com		

		TEACHING different severe weather systems that can occur and possible outcomes of the severe weather.	http://environment.nationalgeographic.com/environment/natural-disasters/forces-of-nature/		
		I CAN tell the temperature and other weather data.	https://itunes.apple.com/us/app/weather-rabbit-free/id608020538?mt=8		
Water	In this lesson, students learn about identifying sources of water for human consumption and use. 3.3.K.A4.	TEACHING how groundwater is stored in reservoirs to be prepared for human consumption.	http://water.epa.gov/learn/kids/drinkingwater/upload/2005_03_10_kids_activity_grades_4-8_howpeoplegetwater.pdf		
		TEACHING where drinking water comes from and how to care of the earth's water.	http://water.epa.gov/learn/kids/drinkingwater/upload/2005_05_10_kids_activity_grades_k-3_activitybook.pdf		
		I CAN learn about the process of water going from the river to the kitchen using a video.	https://www.youtube.com/watch?v=Qz-HMMdpu-k		
		I CAN identify the four stages of the water cycle.	https://itunes.apple.com/us/app/the-water-cycle/id483114651?mt=8		
		I CAN participate in creating a timeline of how water flows to our school with my class.	https://www.timetoast.com/		
Rock, Soil and Sand	In this lesson, students learn about the solid parts of the earth; rock, soil and sand and their similarities and differences. 3.3.K.A1	TEACHING about rocks and soil.	http://crisscrossapplesauce.typepad.com/files/kindergarten-rock-unit.pdf	The investigation activities engage students in learning about rocks and soil.	
		I CAN distinguish between rock and soil.	https://itunes.apple.com/us/app/worm-journey-3d/id953719987?mt=8	free	
		I CAN learn about rocks, soil and sand by watching this video.	https://www.youtube.com/watch?v=3HQwYbwmyaY		

		I CAN explain rock, sand and soil and how they are similar and different.	https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8		
Climate	In this lesson, students describe changes that occur as a result of climate. (3.1.K.C3).	TEACHING seasonal changes in the environment.	https://itunes.apple.com/us/podcast/chapter-4-seasons/id386661889?i=85799053&mt=2		
		I CAN create a picture of the 4 seasons.	https://itunes.apple.com/us/app/doodle-buddy-for-ipad-paint/id364201083?mt=8	Teacher can use doodle buddies for students to draw seasons.	
		I CAN learn more about the seasons.	https://itunes.apple.com/us/app/four-seasons-earth-day-interactive/id427865899?mt=8	free interactive story book	
		TEACHING students how to reduce our effect on climate change.	http://www.energystar.gov/ia/partners/publications/pubdocs/Lorax%20Activity%20Book%206%20pages.pdf	This activity book uses the Lorax to guide kids through the pages and identify things they can do to reduce human effect on climate change.	
		I CAN view images showing the effects of climate change over times.	https://itunes.apple.com/us/app/images-of-change/id710564941?mt=8	This app allows students to view photos of areas on the earth taken by NASA several decades apart to see the effects of climate change and natural disasters.	

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Grade 1: Physical Science					
Properties of Matter	In this lesson, students learn about properties of liquids and solids and what happens when solids and other liquids are mixed with water. (3.2.1.A1)	TEACHING about the different phases of matter	https://youtu.be/ http://www.brighthubeducation.com/lesson-plans-grades-1-2/121796-the-three-states-of-matter-activities-and-lesson/ http://mrstsfirstgradeclass-jill.blogspot.com/2011/12/states-of-matter.html		
		I CAN show water in each of it's three states (solid, liquid, and gas).	https://itunes.apple.com/us/app/crayola-colorstudio-hd/id420671716?mt=8	Using the Crayola(R) App draw a picture of the three states. Ask a partner to label the three stages on my drawing. Partner 1 draws ice, liquid water, and steam/ water vapor. Partner 2 labels the parts.	
		I CAN explain the differently phases of matter correctly.	https://itunes.apple.com/us/app/explain-everything/id431493086?mt=8 https://www.youtube.com/watch?v=PjZSMu2SXt4	USE Explain Everything to explain the different phases of matter.	
Matter and Energy:	In this lesson, students identify how heating, melting, cooling, etc., may cause changes in properties of materials. (3.2.1.A3)	TEACHING how heating, melting and cooler changes properties of water	https://itunes.apple.com/us/app/science-with-tom-matter/id905835899?mt=8		
		I CAN learn the meaning of vocabulary words for the properties of matter by watching a video clip.	https://www.youtube.com/watch?v=fhhFwdJqvfw		

		I CAN explain vocabulary words related to matter and energy. USE TeleStory to explain the words you selected.	https://itunes.apple.com/us/app/telestory/id915378506?mt=8	Telestory	
		I CAN explain the changing states of matter. CREATE a drawing to go with your explanation.	https://itunes.apple.com/us/app/crayola-colorstudio-hd/id420671716?mt=8		
Reactions:	In this lesson, students learn what happens when substances are heated or cooled and can distinguish between changes that are reversible/ physical (melting, freezing) and not reversible/ chemical (e.g. baking acake, burning fuel). (3.2.1.A4)	TEACHING reversible (physical) changes and not reversible (chemical) changes.	https://youtu.be/Rlsm7aXcYwc		
		I CAN DRAW a physical and chemical change.	https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8		
		I CAN PERFORM experiments that produce chemical changes.	https://itunes.apple.com/us/app/chemcrafter/id839552862?mt=8		
		I CAN explore how things can change.	https://itunes.apple.com/us/app/toca-lab/id748057890?mt=8		
Matter	**In this lesson, students focus upon CONSTANCY AND CHANGE and recognize that everything is made of matter. (3.2.1.A5)**	TEACHING everything is made of matter	https://www.youtube.com/watch?v=ELchwUIlWa8&feature=youtu.be		
		I CAN use the correct vocabulary when talking about matter.	http://quizlet.com/_j7d4v		
		I CAN sort the states of matter	https://itunes.apple.com/us/app/science-with-tom-matter/id905835899?mt=8		
Name of Waves, Sound, and Light:	In this lesson, students compare and contrast how light travels through different materials and explore how mirrors and prisms can be used to redirect a light beam. (3.2.1.B5)	TEACHING about about visible light into colors.	https://www.youtube.com/watch?v=gtgBHsSzCPE		

		I CAN demonstrate the movement of wave with slinky or rope.	https://itunes.apple.com/us/app/explain-everything-interactive/id431493086?mt=8		Photo-
		I CAN learn the way light behaves.	https://itunes.apple.com/us/app/bobo-explores-light/id463809859?mt=8		
		TEACHING about different wavelengths for the colors of light in the visible spectrum.	https://itunes.apple.com/us/book/kids-vs-light-why-is-sky-blue/id848789348?mt=11		
		I CAN explain the different wavelengths of light using examples.	https://itunes.apple.com/us/app/imovie/id377298193?mt=8		
Energy	In this lesson, students focus upon ENERGY recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow. (3.2.K.B6)	TEACHING how energy can be created in different ways.	https://www.youtube.com/watch?v=khZrs-UBq28		
		TEACHING the importance of conserving energy used from wood, coal and effects of pollution.	https://www.youtube.com/watch?v=ZOxO10XT8c0		
		I CAN demonstrate my understanding of different forms of energy.	https://docs.google.com/file/d/0Bz9eBjqfJlfDWFF2djVUdjdZYm8/edit?pli=1		
		I CAN describe a life cycle.	https://itunes.apple.com/us/app/educreations-interactive-whiteboard/id478617061?mt=8		
Force and Motion	In this lesson, students learn the various types of motion and observe and describe how pushes and pulls change the motion of objects. (3.2.1.B1)	TEACHING about the types of motion.	https://youtu.be/mn34mnnDnKU		
		I CAN explore different types of motion and the forces that cause them.	https://itunes.apple.com/us/app/forces-motion-hd/id825460200?mt=8		
		I CAN learn how machines work using this app.	https://appsto.re/us/AMMME.i		

		I CAN explore the effects of force and motion through interacting with this app.	https://itunes.apple.com/us/app/rube-works-official-rube-goldberg/id716238013?mt=8		
Grade 1: Life Sciences					
Common Characteristics of Life	In this lesson, students categorize living and nonliving things by external characteristics. (3.1.1.A1)	TEACHING living and nonliving things.	https://youtu.be/tXadLteW9wY		
		I CAN classify animals and plants using app.	https://itunes.apple.com/us/app/classify-it!/id911484593?mt=8		
		I CAN demonstrate what I know about living and nonliving things.	https://itunes.apple.com/us/app/tinytap-make-play-educational/id493868874?mt=8	Make a game about living and non living things.	
Energy Flow	In this lesson, students Investigate the dependence of living things on the sun's energy, water, food/ nutrients, air, living space, and shelter. 3.1.1.A2.	TEACHING the dependence of living things on the sun's energy.	https://itunes.apple.com/us/book/think-scientifically-sun-water/id853225309?mt=11		
		TEACHING about the characteristics of living things.	http://www.kidsbiology.com/biology_basics/characteristics_life/characteristics_of_life_what_is_life_1.php		
		I CAN identify characteristics of living things.	https://itunes.apple.com/us/app/save-the-ants/id584619866?mt=8		
Habitat	In this lesson, students learn about CONSTANCY AND CHANGE and describing changes that occur as a result of habitat. 3.1.1.C3	TEACHING how animals change as a result of habitat using hibernation as an example.	https://itunes.apple.com/us/podcast/ecogeeks-untamed-science-video/id185714235?mt=2#		
		I CAN explain how baby animals use their body parts to survive.	https://itunes.apple.com/us/book/baby-animals/id478877818?mt=11		
Forms and Functions	The teaching and learning in this lesson engages the learner in identifying and describing plant parts and their function 3.1.1.A5.	TEACHING the identification of parts of a plant. Describing parts of a plant and their functions.	http://urbanext.illinois.edu/gpe/index.cfm		

		TEACHING parts of plant.	https://itunes.apple.com/us/app/parts-of-plants/id808719604?mt=8		
		I CAN draw a plant and label its parts.	https://itunes.apple.com/us/app/draw-cartoon-free-plants/id571909818?mt=8		
		TEACHING about how a seed grow.	https://itunes.apple.com/us/app/seed-grows-laz-reader-level/id341645298?mt=8		
		I CAN show the parts of a plant and explain their function.	https://itunes.apple.com/us/app/showme-interactive-whiteboard/id445066279?mt=8		
		TEACHING parts of a plant.	http://www.lakeshorelearning.com/general_content/free_resources/teachers_corner/lesson_plans/partsPlant.jsp http://urbanext.illinois.edu/gpe/case1/c1m1a.html https://www.pinterest.com/margaret6614/plant-unit/ http://education.seattlepi.com/1stgrade-lesson-parts-plant-3695.html		
		I CAN name the parts of a plant.	https://itunes.apple.com/us/app/naming-parts-plants-animals/id918196668?mt=8 http://www.primarygames.com/science/flowers/games.htm https://itunes.apple.com/us/app/learn-about-plants/id526644212?mt=8		

Genetics	**In this lesson, students learn about growing plants from seed, how they grow and change, and how they differ from adult plants. 3.1.1.B1.**	TEACHING how a seed grows.	https://itunes.apple.com/us/app/seed-grows-laz-reader-level/id341645298?mt=8 http://www.scholastic.com/teachers/lesson-plan/seed-plant		
		I CAN tell how a seed grows into a plant.	https://itunes.apple.com/il/app/seeds-to-plants-lite/id987635428?mt=8		
		I CAN explain how a seed grows into a plant.	https://itunes.apple.com/us/app/explain-everything/id431493086?mt=8		
		TEACHING how long it takes seeds to grow.	https://itunes.apple.com/us/book/beginninreads-5-3-seeds-plants/id671203535?mt=13		
		I CAN raise a plant from seed to adult	https://itunes.apple.com/us/app/plants-life-grow-plants-share/id585101297?mt=8		
		I CAN write a book about plant growth	https://itunes.apple.com/us/app/book-creator-free/id661166101?mt=8		
Grade 1: **Earth Features and the Processes that Change It:**					
Earth's Materials	In this lesson, students observe, describe, and sort earth's materials and compares the composition of different soils. (3.3.1.A1.)	TEACHING how soil is formed.	https://www.youtube.com/watch?v=F6kUJnTxg1Q https://educators.brainpop.com/bp-jr-topic/soil/ http://www.learnnc.org/lp/pages/3532		

		I CAN tell about different types of soil.	https://www.teachervision.com/tv/printables/scottforesman/Sci_1_TOP_C1_2.pdf https://www.youtube.com/watch?v=uS7zfeK4OTQ		
Water:	In this lesson, students identify and describe types of fresh and salt-water bodies (ocean, rivers, lakes, ponds). 3.3.1.A4.	TEACHING about the difference between types of bodies of water	http://easyscienceforkids.com/tag/bodies-of-water/		
		I CAN describe the different types of salt and fresh water.	https://www.youtube.com/watch?v=oaQCiwzjnCM		
Weather and Climate	In this lesson, students become familiar with weather instruments, collecting, describing, and recording basic information about weather over time. 3.3.1.A5.	TEACHING about the different types of weather instruments.	https://itunes.apple.com/us/app-bundle/weather-instruments/id918037666?mt=8		
		TEACHING how to use different weather instruments, collecting, describing, and recording basic information about weather over time.	http://www.k12science.org/curriculum/weatherproj2/en/lesson1.shtml		
		I CAN tell about the different types of weather instruments.	http://easyscienceforkids.com/weather-forecasting-instruments/ http://studyjams.scholastic.com/studyjams/jams/science/index.htm?topic_id=wc http://www.weatherwizkids.com/weather-instruments.htm		

		I CAN use weather instruments to gather data about weather.	http://teacher.scholastic.com/activities/wwatch/gather_data/		
		I CAN record weather data over time.	http://teacher.scholastic.com/activities/wwatch/pdfs/Gather.pdf		
Composition and Structure	The teaching and learning in this lesson involve the learner in explaining why shadows fall in different places at different times of the day. 3.3.1.B1	TEACHING to understand why shadowa fall in different places at different times of the day.	https://youtu.be/okuDo1-78as		
		I CAN draw a shadow of an object and draw where the sun would be in the sky.	https://itunes.apple.com/us/app/scribble-press/id487300076?mt=8		
		I CAN discover and explain how shadows are created with light.	http://d43fweuh3sg51.cloudfront.net/media/assets/wgbh/lsps07/lsps07_doc_lpashadowalk/ lsps07_doc_lpashadowalk.pdf		???