Unpacked Content
With
OCS Priority Objectives Identified

Grade 3
Science

Onslow County Schools 3rd Grade Science Prioritized Objectives
https://sites.google.com/dpi.nc.gov/k-12science/home

3rd Grade Science
At – a – Glance

First Grading Period	Second Grading Period	Third Grading Period	Fourth Grading Period
3.P.1.1	**3.L.2.1**	**3.P.2.2**	**3.P.1.1**
3.P.1.2	3.L.2.2, 3.L.2.3, 3. L.2.4	3.P.2.1, 3. P.2.3	3.P.1.3
3.L.1.1		**3.P.3.1**	**3.E.1.1**
3.L.1.2		3.P.3.2	3.E.1.2
		3.E.2.1	
		3.E.2.2	

**** Bold indicates Priority Standard****

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Forces and Motion Structures and Functions of Living Organisms 1st Nine Weeks			
Standard	**Prioritized Objective**	**Complementary Objectives**	**Unpacked Content**
3.P.1 Understand motion and factors that affect motion.	3.P.1.1 Infer changes in speed or direction resulting from forces acting on an object.	3.P.1.2 Compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.	3.P.1.1 Students know that when a force acts on an object it will result in a change of speed and / or direction. 3.P.1.2 Students know that speed can vary. Students know that varying the speed of a moving object will affect the time it takes for the object to travel a particular distance.
3.L.1 Understand human body systems and how they are essential for life: protection, movement and support.	3.L.1.1 Compare the different functions of the skeletal and muscular system.	3.L.1.2 Explain why skin is necessary for protection and for the body to remain healthy	3.L.1.1 Students know that the muscles and the skeleton provide a structural framework that protects and supports mobility of the human body. Students know that the skeletal system is comprised of bone. Bone is a hard material that provides support and protection to the body's soft tissues. Students know that muscles are formed from tissues that contract and relax, producing motion. Muscles are attached to bones and initiate and regulate movement. Muscles are also found in internal organs that are responsible for essential life processes (heart, stomach, intestines). 3.L.1.2 Students know that the skin is the largest organ of the human body, that it covers and protects the human body from external conditions and forces. Students know that the skin contains nerve receptors that provide information about external conditions.

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Ecosystems 2nd Nine Weeks			
Standard	**Prioritized Objective**	**Complementary Objectives**	**Unpacked Content**
3.L.2 Understand how plants survive in their environments.	3.L.2.1 Remember the function of the following plant structures as it relates to the survival of plants in their environments: • Roots – absorb nutrients • Stems – provide support • Leaves – synthesize food • Flowers – attract pollinators and produce seeds for reproduction.	3.L.2.2 Explain how environmental conditions determine how well plants survive and grow. 3.L.2.3 Summarize the distinct stages of the life cycle of seed plants. 3.L.2.4 Explain how the basic properties (texture and capacity to hold water) and components (sand, clay and humus) of soil determine the ability of soil to support the growth and survival of many plants.	3.L.2.1 Students know the names and functions of major plant parts (roots, leaves, stems, flowers). Students know that plants have special parts that perform special functions in order for the plant to survive. 3.L.2.2 Students know that how well plants grow and survive is determined by a combination of environmental conditions. For example, drought conditions will tend to diminish plant health and growth. 3.L.2.3 Students know the distinct stages of the life cycle of seed plants (seed, germination, seedling, adult). 3.L.2.4 Students know that different soils possess different textures and capacities for the retention of water and nutrients. Students know that soil consists of different components. Students know that these characteristics of soil influence the growth and survival of plants.

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Matter: Properties and Change Earth Systems, Structures and Processes 3rd Nine Weeks			
Standard	**Prioritized Objective**	**Complementary Objectives**	**Unpacked Content**
3.P.2 Understand the structure and properties of matter before and after they undergo a change.	3.P.2.2 Compare solids, liquids, and gases based on their basic properties.		3.P.2.2 Students know that all matter exhibits properties. Students know that matter can be differentiated based on properties. Students know that gases, liquids and solids are all made up of particles, but the behaviors of these particles differ in the three states (gas, liquid, solid). Students know that solids, liquids, and gases (each) display unique properties characteristic of that particular state (phase) of matter. Students also know that the characteristics of particular states influence the functional applications of a given material.
		3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.	3.P.2.1 Students know that air surrounds us, takes up space and has mass.
		3.P.2.3 Summarize changes that occur to the observable properties of materials when different degrees of heat are applied to them, such as melting ice or ice cream, boiling water or an egg, or freezing water.	3.P.2.3 When heat is applied to an object the particles in that object begin to vibrate more rapid. They also begin to move further apart. As the particles move further apart the object may change from one state to another (solid to liquid, liquid to gas). Students know that heating or cooling matter will alter the properties of that matter.

3.P.3 Recognize how energy can be transferred from one object to another.	3.P.3.1 Recognize that energy can be transferred from one object to another by rubbing them against each other.	3.P.3.2 Recognize that energy can be transferred from a warmer object to a cooler one by contact or at a distance and the cooler object gets warmer.	3.P.3.1 Students know that rubbing objects together results in friction which releases heat energy. 3.P.3.2 Students know that objects can transfer energy by touching or by giving off or receiving energy waves. Heat can move from one object to another in more than one way. Convection (more commonly gasses and liquids) and conduction (more commonly solids) are best understood at this level not as vocabulary terms, but rather through effects that may be observed using everyday materials such as water, air, cooking and heating utensils.
3.E.2 Compare the structures of the Earth's surface using models or three-dimensional diagrams. **Both Objectives are independent and are important foundational objectives to upper grades.	3.E.2.1 Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers). 3.E.2.2 Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.		3.E.2.1 Students know that there are bodies of water on the surface of the earth and that they are often named based on their characteristics and location. Some bodies of water are salty, some are 'fresh', some are 'brackish', and some are frozen in ice sheets and glaciers. Different types of organisms have developed to live in these different bodies and types of water. 3.E.2.2 Students know that the surface of the earth has many different types of physical features and that these features are named according to their structure. There are many representations for any given land feature and these possess correspondences consistent with their attributes. (models, maps, etc.).

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Forces and Motion Earth in the Universe 4th Nine Weeks			
Standard	**Prioritized Objective**	**Complementary Objectives**	**Unpacked Content**
3.P.1 Understand motion and factors that affect motion.	3.P.1.1 Infer changes in speed or direction resulting from forces acting on an object. (taught in first nine weeks)	3.P.1.3 Explain the effect of earth's gravity on the motion of any object on or near the earth.	3.P.1.1 Students know that when a force acts on an object it will result in a change of speed and / or direction. 3.P.1.3 Students know that the earth 'pulls' on all objects on or near the earth without touching those objects
3.E.1 Recognize the major components and patterns observed in the earth/moon/sun system.	3.E.1.1 Recognize that the earth is part of a system called the solar system that includes the sun (a star), planets, and many moons and the earth is the third planet from the sun in our solar system.	3.E.1.2 Recognize that changes in the length and direction of an object's shadow indicate the apparent changing position of the Sun during the day although the patterns of the stars in the sky, to include the Sun, stay the same.	3.E.1.1 Students know that we live on a planet that is part of a solar system. Students know that a solar system includes a star and planets, and other objects. The planets and other objects revolve around the star. Students know that in our solar system Earth is the third planet from the sun. 3.E.1.2 Students know that the Sun and stars in the sky move in consistent patterns. Students know that shadows are created by objects blocking the light. Students know that as the Sun changes its apparent position in the sky, the shadows cast by objects will change. Students know that the Earth rotates on its axis and revolves around the Sun.