

NORTH CAROLINA STANDARD COURSE OF STUDY

Crosswalk

Grade 3 Science

The purpose of this document is to provide a general comparison of the 2009 Grade 3 Science Standard Course of Study and the 2023 Grade 3 Science Standard Course of Study. It provides initial insight into similarities and differences between these two sets of standards. This document is not intended to answer all questions about the nuances of the new 2023 standards versus the previous 2009 standards..

Grade 3 Science Standards

Note: The 2023 Grade 3 standards and objectives are not intended to be the curriculum, nor do they indicate the whole of a curriculum which will be written by a local public-school unit (PSU) or school. The standards for this course have been developed to serve as the framework which will guide each PSU in the development of the curriculum for Grade 3.

Matter and its Interactions		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>PS.3.1 Understand the structure and properties of matter before and after they undergo a change.</i>	<i>3.P.2 Understand the structure and properties of matter before and after they undergo a change.</i>	
PS.3.1.1 Engage in argument from evidence to infer that air is a substance that surrounds us, takes up space, and has mass.	3.P.2.1 Recognize that air is a substance that surrounds us, takes up space and has mass.	
PS.3.1.2 Carry out investigations to classify solids, liquids, and gases based on their basic properties.	3.P.2.2 Compare solids, liquids, and gases based on their basic properties.	
PS.3 1.3 Engage in argument from evidence to explain observable changes to the properties of matter when heated or cooled.	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.	

Motion and Stability- Forces and Interactions		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>PS.3.2 Understand motion and factors that affect motion.</i>	<i>3.P.1 Understand motion and factors that affect motion.</i>	
PS.3.2.1 Carry out investigations to infer changes in speed or direction resulting from forces acting on an object.	3.P.1.1 Infer changes in speed or direction resulting from forces acting on an object.	
PS.3.2.2 Carry out investigations to compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.	3.P.1.2 Compare the relative speeds (faster or slower) of objects that travel the same distance in different amounts of time.	
PS.3.2.3 Use models to explain the effect of Earth's gravity on the motion of any object on or near the Earth.	3.P.1.3 Explain the effects of earth's gravity on the motion of any object on or near the earth.	

Energy		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>PS.3.3 Understand how energy can be transferred from one object to another.</i>	<i>3.P.3 Recognize how energy can be transferred from one object to another.</i>	
PS.3.3.1 Ask questions to explain how heat is created by friction.	3.P.3.1 Recognize that energy can be transferred from one object to another by rubbing them against each other.	
PS.3.3.2 Carry out investigations to explain how energy can be transferred from a warmer object to a cooler one by contact or at a distance.	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.	

From Molecules to Organisms		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>LS.3.1 Understand human body systems and how they are essential for life: protection, movement, and support.</i>	<i>3.L.1 Understand human body systems and how they are essential for life: protection, movement and support.</i>	
LS.3.1.1 Use models to infer the functions of the skeletal and muscular systems.	3.L.1.1 Compare the different functions of the skeletal and muscular system.	
LS.3.1.2 Obtain, evaluate, and communicate scientific information to explain why skin is necessary for protection and for the body to remain healthy.	3.L.1.2 Explain why skin is necessary for protection and for the body to remain healthy.	
<i>LS.3.2 Understand how plant structures aid in survival.</i>	<i>3.L.2 Understand how plants survive in their environments.</i>	
LS.3.2.1 Carry out investigations to explain the structures and functions of plants and how they are essential for life.	3.L.2.1 Remember the function of the following structures as it relates to the survival of plants in their environments: <ul style="list-style-type: none"> • Roots – absorb nutrients • Stems – provide support • Leaves – synthesize food • Flowers – attract pollinators and produce seeds for reproduction 	
LS.3.2.2 Use models to exemplify the distinct stages of the life cycle of seed plants.	3.L.2.3 Summarize the distinct stages of the life cycle of seed plants.	

Ecosystems- Interactions, Energy, and Dynamics		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>LS.3.3 Understand how environmental factors aid in the survival of plants.</i>	<i>3.L.2 Understand how plants survive in their environments.</i>	
LS.3.3.1 Carry out investigations to explain how environmental conditions determine how well plants survive and grow.	3.L.2.2 Explain how environmental conditions determine how well plants survive and grow.	

LS.3.3.2 Construct an explanation to infer how the basic properties and components of soil determine its ability to support the growth and survival of many 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.	
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Earth's Place in the Universe		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>ESS.3.1 Remember the major components and patterns observed in the earth/moon/sun system.</i>	<i>3.E.1 Recognize the major components and patterns observed in the earth/moon/sun system.</i>	
ESS.3.1.1 Use models to recognize that the Earth is part of a system called the solar system that includes the sun (a star), planets, and many moons, and that the Earth is the third planet from the sun.	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.	
ESS.3.1.2 Carry out investigations to recognize that changes in the length and direction of an object's shadow indicate the apparent changing position of the sun during the day.	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.	
ESS.3.1.3 Obtain, evaluate, and communicate information to recognize the patterns of the stars (including the sun) stay the same as they appear to move across the sky.	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.	

Earth's Systems		
2023 Standards/Objectives	2009 Essential Standards/Clarifying Objectives	Notes
<i>ESS.3.2 Understand the structures of the Earth's surface using models.</i>	<i>3.E.2 Compare the structures of the Earth's surface using models or three-dimensional diagrams.</i>	
ESS.3.2.1 Use models to compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).	3.E.2.1 Compare Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers).	
ESS.3.2.2 Use models to compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands).	3.E.2.2 Compare Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps.	