Big Book Science™ Set 1
Content and Process Skills

	I Learn with My Senses	*The Mystery Seeds*	*Living Things Are Everywhere!*	*The Life of a Butterfly*	*Our Earth*	*What Is Weather?*	*Tell Me All About It*	*Watch What Happens!*	*Let's Eat!*	*I Keep Myself Safe*
Science as Inquiry										
Begins to understand that science is one way of answering questions and explaining the natural world	•	•	•	•	•	•	•	•	•	•
Begins to ask questions about and show interest in investigating objects, organisms, and events in the environment	•	•	•	•	•	•	•	•	•	•
Begins to ask questions that can be answered by using own observations and scientific knowledge	•	•	•	•	•	•	•	•	•	•
Begins to use the five senses to gather information, investigate materials, and observe and learn about objects, events, organisms, processes, and relationships	•	•	•	•	•	•	•	•		•
Begins to develop abilities to compare objects and organisms and to identify common properties, similarities, and differences	•	•	•	•	•	•	•		•	
Begins to describe observations in own words	•	•	•	•	•	•	•	•	•	•
Begins to plan and conduct simple investigations to test observations, discuss and draw conclusions, and form generalizations	•	•	•		•	•	•	•	•	•
Begins to use different kinds of investigations, including describing objects, events, and organisms; classifying them; and performing an experiment	•	•	•	•	•	•	•	•	•	•
Begins to predict and anticipate possible outcomes of investigations based on past experiences	•	•	•	•	•	•	•	•	•	•
Begins to use patterns to predict what will happen next (night follows day, etc.)		•	•	•		•				
Begins to select and use simple tools and measuring devices—such as hand lens, eye dropper, measuring cups, bowls, thermometer, balance scale, and ruler—to collect data, investigate materials, and observe processes and relationships	•	•	•	•	•	•	•	•	•	
Begins to explore by manipulating materials with simple equipment—pour from a cup, pick up sand with a spoon, etc.		•		•	•	•	•	•	•	
Begins to recognize that a variety of tools can be used to examine objects at different degrees of magnification—binoculars. hand lens, microscope	•	•	•	•	•		•			
Begins to develop abilities to work individually and collaboratively and to use suitable tools, techniques (ways of doing something), and quantitative measurements	•	•	•	•	•	•	•	•		
Begins to demonstrate safe practices and appropriate use of materials; begins to use appropriate safety procedures and equipment—gloves, goggles, hair ties—when conducting investigations							•	•		•
Begins to develop reasonable explanations using observations (evidence/data) and what students already know about the world (scientific knowledge)	•	•	•	•	•	•	•	•	•	•
Begins to expand knowledge of and ability to observe, describe, and discuss the natural world, materials, living things, and natural processes		•	•	•	•	•	•	•		
Begins to collect, describe, record, and communicate findings about simple investigations in a variety of ways, such as oral and written explanations, dramatizations, illustrations, graphs, charts, tables, and concept maps	•	•	•	•	•	•	•	•	•	•
Begins to communicate findings about simple investigations in ways that enable others to repeat the investigations		•	•	•	•	•	•			•
Begins to solve simple design problems—making a box into a house for a pet, etc.										•
Begins to distinguish between natural objects and objects made by humans			•							
Begins to hear and use scientific words and phrases to describe objects, actions, events, and living things	•	•	•	•	•	•	•	•	•	
Life Science										
Begins to describe similarities and differences in appearance and behavior of plants and animals		•	•	•	•	•				
Begins to understand that plants require air, water, food, and light		•	•		•			•		
Begins to understand that animals need air, water, and food			•	•	•				•	
Begins to describe characteristics of living things		•	•	•	•					
Begins to identify plants and animals as living things		•	•	•	•					
Begins to learn about plants and animals through nonfiction books		•	•	•	•					
Begins to describe similarities and differences in appearance and behavior of plants and animals		•	•	•	•					
Begins to understand that each plant or animal has different structures that serve different functions in growth, survival, and reproduction		•	•	•					•	
Begins to identify major structures of common plants—leaves, roots, stems, flowers, seeds		•	•							
Begins to identify major structures of common animals—wings, feet, heads, tails, etc.			•	•						
Begins to identify parts of the body and how they move	•								•	
Begins to expand knowledge of and respect for own body and for the environment	•								•	•
Begins to develop an understanding of the life cycles of plants and animals, including being born, developing into adults, reproducing, and eventually dying		•	•	•						
Begins to recognize that life cycles are different for different organisms			•	•						
Begins to describe how organisms change as they grow and mature		•	•	•					•	
Begins to recognize that plants and animals closely resemble their parents			•	•						

	I Learn with My Senses	*The Mystery Seeds*	*Living Things Are Everywhere!*	*The Life of a Butterfly*	*Our Earth*	*What Is Weather?*	*Tell Me All About It*	*Watch What Happens!*	*Let's Eat!*	*I Keep Myself Safe*
Life Science (Continued)										
Begins to observe and care for pets and plants		•	•	•						
Begins to understand that all animals depend on plants—some animals eat plants for food; other animals eat animals that eat plants				•					•	
Begins to understand a whole system in terms of its components and how these components relate to each other and to the whole		•		•						
Begins to distinguish between living organisms and nonliving objects			•							
Earth and Space Science										
Begins to understand that Earth is composed of land (rocks, sand, and soil), water, and air					•					
Begins to observe and describe properties of rocks and soil					•					
Begins to recognize characteristics of landforms, such as mountains, valleys, deserts, streams, rivers, lakes, oceans					•					
Begins to develop growing awareness of ideas and language related to attributes of time and temperature				•	•	•		•		
Begins to understand that resources are things that we get from the living and nonliving environment to meet the needs and wants of a population		•	•		•	•				
Begins to develop understanding of changes in environments				•	•	•				
Begins to understand that the sun, moon, stars, clouds, and birds all have properties, locations, and movements that can be observed and described					•	•				
Begins to observe that objects in the sky have patterns of movement					•					
Begins to understand that the sun provides the light and heat necessary to maintain the temperature of Earth					•	•				
Begins to learn about objects in the sky through nonfiction books					•					
Begins to observe that weather changes from day to day and from season to season						•		•		
Begins to understand that weather can be described by measurable quantities, such as temperature, wind direction and speed, and precipitation (rain and snow)						•				
Begins to describe how different types of weather affect daily activities and attire						•				•
Begins to recognize characteristics of weather—sunny, rainy, cloudy, snowy						•				
Begins to recognize changes in Earth and sky					•	•				
Physical Science										
Begins to describe observable physical properties of objects—such as size, weight, shape, position, color, temperature, attraction to magnets, ability to sink or float—many of which can be measured using tools	•	•			•	•	•	•		•
Begins to describe properties of materials by using observations made with the aid of tools, such as magnets, magnifiers, balance scales, and mirrors	•	•	•		•		•	•		
Begins to observe that magnets attract and repel each other and certain other materials							•			
Begins to determine whether one object weighs more or less than another by using a balance scale					•		•	•		
Begins to describe the position of an object by locating it relative to another object; for example: above, below				•			•			
Begins to determine whether objects sink or float through investigations					•		•			•
Begins to identify different sounds as loud or soft; observe changes in sound	•						•			
Begins to identify substances as hot or cold	•				•	•		•		
Begins to describe changes in size, color, position			•	•		•	•	•		
Begins to sort objects using one physical attribute and tell how groups were organized	•	•			•		•	•	•	•
Begins to understand that objects are made of one or more materials—such as paper, wood, cloth, clay, and metal—and begins to identify what things are made of		•	•				•	•		
Begins to recognize that many things are made of smaller pieces, different amounts, and various shapes					•		•	•		
Begins to understand that materials can exist in different states—solid, liquid, and gas—and that some common materials, such as water, can be changed from one state to another by heating or cooling						•		•		
Begins to compare the properties of different solids and liquids through observation					•		•	•		
Begins to identify components of simple mixtures; for example: salt/water, rice/beans, iron filings/sand					•		•	•		
Begins to show increasing awareness and beginning understanding of changes in materials and cause-effect relationships								•	•	•
Science in Personal and Social Perspectives										
Begins to engage in personal dental hygiene, cleanliness, and exercise to maintain and improve health									•	
Begins to understand how the body uses food and how various foods contribute to health, including eating a variety of foods, eating less sugar, and eating less fat									•	
Begins to understand that safety and security—including following safety rules for home and school, preventing abuse and neglect, avoiding injury, knowing whom to ask for help, and when and how to say no—are basic human needs						•				•

Big Book Science™ Set 2
Content and Process Skills

	Science Detective	Amazing Animals	Amazing Plants	Dinosaur Science	Saving Our Planet	Sun and Shadows, Sky and Space	Playground Science	Science Is Everywhere!	My Wonderful Body	How Scientists Observe
Science as Inquiry										
Understands that science is one way of answering questions and explaining the natural world	•	•	•	•	•	•	•	•	•	•
Investigates objects, organisms, and events in the environment	•	•	•	•	•	•	•	•	•	•
Asks questions that can be answered by using own observations and scientific knowledge	•	•	•	•	•	•	•	•	•	•
Uses the five senses to gather information, investigate materials, and observe and learn about objects, events, organisms, processes, and relationships	•	•	•	•	•	•	•	•	•	•
Compares objects and organisms and identifies common properties, similarities, and differences	•	•	•	•	•		•	•	•	•
Describes observations in own words	•	•	•	•	•	•	•	•	•	•
Shows progress in planning and conducting simple investigations to test observations, discuss and draw conclusions, and form generalizations	•	•	•		•	•	•	•	•	•
Shows progress in using different kinds of investigations, including describing objects, events, and organisms; classifying them; performing an experiment	•	•	•	•	•	•	•	•	•	•
Predicts and anticipates possible outcomes of investigations based on past experiences	•	•	•	•	•	•	•	•	•	•
Uses patterns to predict what will happen next	•					•	•	•		•
Shows progress in selecting and using simple tools and measuring devices—such as hand lens, eye dropper, measuring cups, bowls, thermometer, balance scale, and ruler—to collect data, investigate materials, and observe processes and relationships	•	•			•		•	•		•
Shows progress in recognizing that a variety of tools can be used to examine objects at different degrees of magnification—binoculars, hand lens, microscope, telescope						•				•
Shows progress in working individually and collaboratively and using suitable tools, techniques, and quantitative measurements	•				•	•	•	•		•
Demonstrates appropriate use of materials and uses safety procedures and equipment—gloves, goggles, hair ties—when conducting investigations	•	•						•		•
Develops reasonable explanations using observations (evidence/data) and prior knowledge of the world (scientific knowledge)	•	•	•	•	•	•	•	•	•	•
Expands knowledge of and ability to observe, describe, and discuss the natural world, materials, living things, and natural processes	•	•	•	•	•			•	•	•
Collects, describes, records, and communicates findings about simple investigations in a variety of ways, such as oral and written explanations, dramatizations, illustrations, graphs, charts, tables, and concept maps	•	•	•	•	•	•	•	•	•	•
Shows progress in communicating findings about simple investigations in ways that enable others to repeat the investigations	•						•	•		•
Shows progress in solving simple design problems	•			•	•		•			
Distinguishes between natural objects and objects made by humans	•	•		•	•					
Shows progress in using scientific words and phrases to describe objects, actions, events, and living things	•	•	•	•	•	•	•	•	•	•
Life Science										
Develops an understanding of the characteristics of living organisms and their environments		•	•	•	•				•	•
Understands that plants require air, water, food, and light			•		•	•				
Understands that animals require air, water, and food		•		•	•				•	
Learns about plants and animals through nonfiction resources, such as books		•	•	•	•					•
Describes similarities and differences in appearance and behavior of plants and animals		•	•	•						
Shows progress in understanding that each plant or animal has different structures that serve different functions in growth, survival, and reproduction		•	•	•						
Identifies major structures of common plants—leaves, roots, stems, flowers			•							
Identifies major structures of common animals—wings, feet, heads, tails, etc.		•		•						
Identifies parts of the body and how they move							•	•	•	
Expands knowledge of and respect for own body and for the environment					•		•	•	•	
Shows progress in understanding the life cycles of plants and animals, including being born, developing into adults, reproducing, and eventually dying			•	•						
Describes how organisms change as they grow and mature		•	•						•	
Recognizes that plants and animals closely resemble their parents		•	•	•						
Observes and cares for pets and plants			•		•					
Shows progress in understanding that all animals depend on plants—some animals eat plants for food; other animals eat animals that eat plants			•	•						
Begins to understand that an organism's behavior is related to its environment		•	•	•	•					
Begins to understand that all organisms, including humans, cause changes to their environments and that these changes can be detrimental or beneficial		•	•	•	•				•	
Shows progress in understanding a whole system in terms of its components and how these components relate to each other and to the whole	•	•	•	•	•	•	•	•	•	•
Shows progress in distinguishing between living organisms and nonliving objects		•		•	•					

	Science Detective	Amazing Animals	Amazing Plants	Dinosaur Science	Saving Our Planet	Sun and Shadows, Sky and Space	Playground Science	Science Is Everywhere!	My Wonderful Body	How Scientists Observe
Earth and Space Science										
Understands that Earth is composed of land (rocks, sand, soil), water, and air			•		•					
Observes and describes properties of rocks and soil				•						•
Begins to understand that fossils provide evidence about the plants and animals that lived long ago and about the environment at that time				•						
Shows progress in recognizing characteristics of land forms, such as mountains, valleys, deserts, streams, rivers, lakes, oceans					•					
Shows growing awareness of ideas and language related to time and temperature		•		•		•		•		
Shows progress in understanding that resources are things we get from the living and nonliving environment to meet the needs and wants of a population			•		•				•	
Begins to understand that the supply of many resources is limited and that resources can be extended through recycling and decreased use					•					
Begins to understand that pollution is a change in the environment that can influence the health, survival, or activities of organisms, including humans		•			•					
Shows progress in understanding that objects in the sky (sun, moon, stars, clouds, birds) all have properties, locations, and patterns of movement that can be observed and described						•				•
Understands that the sun provides the light and heat necessary to maintain the temperature of Earth						•		•		
Recognizes that shadows change length and position during the course of a day						•				
Learns about objects in the sky through nonfiction resources, such as books						•				
Observes that weather changes from day to day and from season to season		•	•			•		•		
Shows progress in understanding that weather can be described by measurable quantities, such as temperature, wind direction and speed, and precipitation	•	•				•				
Recognizes changes in Earth and sky	•				•	•				•
Physical Science										
Describe observable physical properties of objects—such as size, weight, shape, position, color, temperature, attraction to magnets, ability to sink or float—many of which can be measured using tools	•			•	•		•	•	•	•
Shows progress in describing properties of materials by using observations made with the aid of tools, such as magnets, magnifiers, balance scales, and mirrors	•				•		•			•
Determines whether one object is heavier or lighter than another by using a balance scale							•			
Describes the position of an object by locating it relative to another object; for example: above, below						•	•			•
Describes changes in size, color, position, sound	•	•	•	•		•	•	•		•
Begins to understand that the position and motion of an object can be changed by pushing or pulling							•			
Begins to understand that the size of a change in position or motion is related to the strength of the push or the pull							•			
Sorts objects using one or more physical attribute and tells how groups were organized		•	•	•	•	•	•	•	•	•
Begins to understand that objects are made of one or more materials—such as paper, wood, cloth, clay, and metal—and to identify what things are made of					•		•	•		
Recognizes that many things are made of smaller pieces, different amounts, and various shapes				•	•		•	•	•	•
Shows progress in understanding that materials can exist in different states—solid, liquid, and gas—and that some materials (such as water) can be changed from one state to another by heating or cooling	•							•		
Compares the properties of different solids and liquids through observation								•		
Identifies components of simple mixtures; for example: salt/water, rice/beans, iron filings/sand								•		
Shows increasing awareness and understanding of changes in materials and cause-effect relationships	•	•	•	•	•	•	•	•	•	
Science in Personal and Social Perspectives										
Shows progress in maintaining and improving health through dental hygiene, cleanliness, and exercise					•				•	
Shows progress in understanding how the body uses food and how various foods contribute to health, including eating a variety of foods, eating less sugar, and eating less fat									•	
Begins to understand how some communicable diseases, such as colds, are transmitted									•	
Shows progress in understanding that some substances—such as tobacco, alcohol, over-the-counter medicines, and illicit drugs—can damage the body									•	
Begins to understand that some substances—such as prescription drugs—can be beneficial, but that any substance can be harmful if used inappropriately									•	
Shows progress in understanding that safety and security—including following safety rules for home and school, and knowing whom to ask for help and when and how to say no—are basic human needs									•	
Science and Technology										
Shows progress in understanding that science is one way of answering questions and explaining the natural world	•	•	•	•	•	•	•	•	•	•
Begins to understand that tools help scientists make better observations, measurements, and equipment for investigations	•			•		•	•	•		•

Big Book Science™ Set 3
Content and Process Skills

	The Water Cycle	All Kinds of Animals	Earth Rocks!	Our Solar System	Energy All Around	Force and Motion	I Keep Myself Healthy	What Should I Put on My Plate?	Inventions Change Our Lives	Amazing Scientists
Science as Inquiry										
Understands that science is one way of answering questions and explaining the natural world	•	•	•	•	•	•	•	•	•	•
Investigates objects, organisms, and events in the environment	•	•	•	•	•	•	•	•	•	•
Asks questions that can be answered by using own observations and scientific knowledge	•	•	•	•	•	•	•	•	•	•
Uses the five senses to gather information, investigate materials, and observe and learn about objects, events, organisms, processes, and relationships	•	•	•	•	•	•	•	•	•	•
Compares objects and organisms and identifies common properties, similarities, and differences	•	•	•	•	•	•	•	•	•	•
Describes observations in own words	•	•	•	•	•	•	•	•	•	•
Plans and conducts simple investigations to test observations, discuss and draw conclusions, and form generalizations	•	•	•	•	•	•	•	•	•	•
Uses different kinds of investigations, including describing objects, events, and organisms; classifying them; performing an experiment	•	•	•	•	•	•	•	•	•	•
Predicts and anticipates possible outcomes of investigations based on past experiences	•		•		•	•	•	•	•	•
Uses patterns to predict what will happen next	•						•		•	•
Selects and uses simple tools and measuring devices—such as hand lens, eye dropper, measuring cups, bowls, thermometer, and balance scale—to collect data, investigate materials, and observe processes and relationships	•	•	•		•	•	•	•		•
Recognizes that a variety of tools can be used to examine objects at different degrees of magnification—binoculars, hand lens, microscope, telescope		•	•	•			•			•
Begins to use a computer to gather data							•	•		•
Works individually and collaboratively and uses suitable tools, techniques, and quantitative measurements	•	•	•	•	•	•	•	•	•	•
Demonstrates appropriate use of materials and uses safety procedures and equipment—gloves, goggles, hair ties—when conducting investigations	•	•	•	•	•	•	•	•	•	
Develops reasonable explanations using observations (evidence/data) and prior knowledge of the world (scientific knowledge)	•	•	•	•	•	•	•	•	•	•
Expands knowledge of and ability to observe, describe, and discuss the natural world, materials, living things, and natural processes	•	•	•	•	•	•	•	•	•	•
Collects, describes, records, and communicates findings about simple investigations in a variety of ways, such as oral and written explanations, dramatizations, illustrations, graphs, charts, tables, and concept maps	•	•	•	•	•	•	•	•	•	•
Communicates findings about simple investigations in ways that enable others to repeat the investigations	•	•	•	•	•	•	•	•	•	•
Solves simple design problems	•		•	•	•	•		•	•	•
Uses scientific words and phrases to describe objects, actions, events, and living things	•	•	•	•	•	•	•	•	•	•
Distinguishes between natural objects and objects made by humans	•	•	•	•	•				•	•
Life Science										
Understands the characteristics of living organisms and their environments		•					•	•		•
Understands that plants require air, water, food, and light	•				•			•		•
Understands that animals require air, water, and food	•	•						•	•	
Learns about plants and animals through nonfiction resources, such as books and computers		•						•	•	
Describes similarities and differences in appearance, behavior, and needs of plants and animals		•						•	•	
Understands that each plant or animal has different structures that serve different functions in growth, survival, and reproduction		•								
Identifies major structures of common plants—leaves, roots, stems, flowers	•							•		•
Identifies major structures of common animals—wings, feet, heads, tails, etc.		•								
Identifies parts of the body and how they move		•						•	•	
Expands knowledge of and respect for own body and for the environment		•						•	•	
Shows progress in understanding the life cycles of plants and animals, including being born, developing into adults, reproducing, and eventually dying		•	•							
Recognizes that life cycles are different for different organisms		•	•							
Describes how organisms change as they grow and mature	•	•								
Recognizes that plants and animals closely resemble their parents		•								
Observes and cares for pets and plants	•	•						•		•
Shows progress in understanding that an organism's behavior is related to its environment		•					•	•		•
Shows progress in understanding that all organisms, including humans, cause changes to their environments and that these changes can be detrimental or beneficial	•						•			•
Shows progress in understanding a whole system in terms of its components and how these components relate to each other and to the whole	•	•	•	•	•	•	•	•	•	•
Distinguishes between living organisms and nonliving objects	•	•	•				•		•	

	The Water Cycle	*All Kinds of Animals*	*Earth Rocks!*	*Our Solar System*	*Energy All Around*	*Force and Motion*	*I Keep Myself Healthy*	*What Should I Put on My Plate?*	*Inventions Change Our Lives*	*Amazing Scientists*
Earth and Space Science										
Understands that Earth is composed of land (rocks, sand, soil), water, and air	•		•	•						
Observes and describes properties of rocks and soil			•							
Understands that fossils provide evidence about the plants and animals that lived long ago and about the environment at that time			•							
Recognizes characteristics of land forms, such as mountains, valleys, deserts, streams, rivers, lakes, oceans	•		•	•						
Shows growing awareness of ideas and language related to time and temperature	•		•	•	•	•		•	•	•
Understands that resources are things we get from the living and nonliving environment to meet the needs and wants of a population	•		•					•	•	•
Understands that the supply of many resources is limited and that resources can be extended through recycling and decreased use	•								•	
Understands that pollution is a change in the environment that can influence the health, survival, or activities of organisms, including humans	•			•	•					•
Understands that objects in the sky (Sun, Moon, stars, clouds, birds) all have properties, locations, and patterns of movement that can be observed and described	•			•	•					
Understands that the Sun provides the light and heat necessary to maintain the temperature of Earth	•			•						
Recognizes that shadows change length and position during the course of a day	•			•						
Learns about objects in the sky through nonfiction resources, such as books and computers	•			•						
Observes that weather changes from day to day and from season to season, and can be described by measurable quantities, such as temperature, wind direction and speed, and precipitation	•									
Recognizes changes in Earth and sky	•		•	•						
Physical Science										
Describes observable physical properties of objects—such as size, weight, shape, position, color, temperature, attraction to magnets, ability to sink or float—many of which can be measured using tools	•	•	•	•	•	•	•	•	•	•
Describes properties of materials by using observations made with tools, such as magnets, magnifiers, scales, and mirrors		•	•		•	•	•	•		•
Determines whether one object is heavier or lighter than another by using a scale			•			•				•
Describes the position of an object by locating it relative to another object; for example: above, below	•		•	•	•	•			•	
Describes changes in size, color, position, sound	•		•	•	•	•			•	•
Begins to understand how heat, light, and sound are produced and how they travel				•	•				•	
Understands that the position and motion of an object can be changed by pushing or pulling					•	•				
Understands that the size of a change in position or motion is related to the strength of the push or the pull					•	•				
Sorts objects using one or more physical attributes and tells how groups were organized		•	•			•		•	•	
Understands that objects are made of one or more materials—such as paper, wood, cloth, clay, and metal—and begins to identify what things are made of			•			•			•	•
Recognizes that many things are made of smaller pieces, different amounts, and various shapes			•						•	•
Shows progress in understanding that materials can exist in different states—solid, liquid, and gas—and that some materials (such as water) can be changed from one state to another by heating or cooling	•		•	•						•
Compares the properties of different solids and liquids through observation	•		•							
Identifies components of simple mixtures; for example: salt/water, rice/beans, iron filings/sand			•							•
Shows increasing awareness and understanding of changes in materials and cause-effect relationships	•		•	•	•	•	•	•	•	•
Science in Personal and Social Perspectives										
Shows progress in maintaining and improving health through dental hygiene, cleanliness, and exercise							•	•		
Shows progress in understanding how the body uses food and how various foods contribute to health, including eating a variety of foods, eating less sugar, and eating less fat							•	•		
Shows progress in understanding how some communicable diseases, such as colds, are transmitted							•	•		
Understands that some substances—such as tobacco, alcohol, and drugs—can damage the body							•	•		
Understands that some substances—such as prescription drugs—can be beneficial, but that any substance can be harmful if used inappropriately							•	•		
Understands that safety and security—including following safety rules for home and school—are basic human needs			•		•		•	•		•
Science and Technology										
Understands that scientists invent tools and techniques to solve problems	•	•	•	•	•	•	•	•	•	•
Understands that tools help scientists make better observations, measurements, and equipment for investigations	•	•	•	•	•	•	•	•	•	•
History and Nature of Science										
Understands that men and women have made a variety of contributions throughout the history of science			•	•		•			•	•
Understands that many people devote their lives to studying science and get great pleasure from science			•	•		•			•	•