

**West Linn-Wilsonville School District
Primary (Grades K-5) Science/Health Curriculum**

Essential Questions

Concepts providing focus for student learning

How does it move and/or change?

(physical science including chemistry)

How is it similar to and different from me?

(life science and health)

How do scientists work and think?

(inquiry as a teaching methodology and student action)

How is or was it made?

(earth science, design technology, science history)

How can I impact the future?

(environmental science, social perspectives science and health)

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum Overview		Revision Date: Summer 2005			
CONTENT AREAS & UNITS					
	<u>Physical Science</u>	<u>Earth/Space Science</u>	<u>Life Science</u>	<u>Health</u>	<u>Safety</u>
	The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.	Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.	Living things are diverse, interdependent, and evolving.	The human body is made up of complex systems that interact to keep an individual alive.	People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.
Kindergarten <i>Scale & Structure</i>	<ul style="list-style-type: none"> • Properties of Materials 	<ul style="list-style-type: none"> • Day and Night 	<ul style="list-style-type: none"> • Plants and Animals 	<ul style="list-style-type: none"> • The Senses 	<ul style="list-style-type: none"> • Safety
Grade 1 <i>Systems & Interactions</i>	<ul style="list-style-type: none"> • Matter 	<ul style="list-style-type: none"> • Weather 	<ul style="list-style-type: none"> • Basic Needs & Survival 	<ul style="list-style-type: none"> • Parts & Systems 	<ul style="list-style-type: none"> • Safety
Grade 2 <i>Patterns of Change</i>	<ul style="list-style-type: none"> • Balance & Motion • Sound Waves 	<ul style="list-style-type: none"> • Geological Changes: Weathering/Erosion 	<ul style="list-style-type: none"> • Life Cycles 	<ul style="list-style-type: none"> • Healthy Living 	<ul style="list-style-type: none"> • Safety
Grade 3 <i>Scale & Structure</i>		<ul style="list-style-type: none"> • Earth Materials / Rocks & Minerals • Outer Space 	<ul style="list-style-type: none"> • Classification of Living Things 	<ul style="list-style-type: none"> • Bones & Muscles 	<ul style="list-style-type: none"> • Safety
Grade 4 <i>Systems & Interactions</i>		<ul style="list-style-type: none"> • Water / Oceans 	<ul style="list-style-type: none"> • Animal / Plant Interactions 	<ul style="list-style-type: none"> • Digestion, Respiratory & Circulatory Systems 	<ul style="list-style-type: none"> • Safety
Grade 5 <i>Patterns of Change</i>	<ul style="list-style-type: none"> • Energy • Science & Technology in Society • Electricity & Magnetism 	<ul style="list-style-type: none"> • Landforms 	<ul style="list-style-type: none"> • Change Over Time (Heredity & Mutation) 	<ul style="list-style-type: none"> • Brain & Nerves 	<ul style="list-style-type: none"> • Safety

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Science/Health Curriculum – Kindergarten				Revision Date: Summer 2005
SCALE & STRUCTURE				
Physical Science	Earth/Space Science	Life Science	Health	Safety
<p>The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.</p>	<p>Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.</p>	<p>Living things are diverse, interdependent, and evolving.</p>	<p>The human body is made up of complex systems that interact to keep an individual alive.</p>	<p>People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.</p>
<p><u>Properties of Materials</u></p> <ul style="list-style-type: none"> • All objects can be described in terms of component ingredients and/or physical properties. • Some properties may change in response to interaction with other materials. 	<p><u>Day and Night</u></p> <ul style="list-style-type: none"> • Changes on the earth, in the seasons, and in weather can be observed and recorded. • Changes and patterns are observable and predictable. 	<p><u>Plants and Animals</u></p> <ul style="list-style-type: none"> • Living things have observable characteristics. 	<p><u>The Senses</u></p> <ul style="list-style-type: none"> • People use their senses as a means of gathering information in order to make safe decisions. 	<p><u>Safety</u></p> <ul style="list-style-type: none"> • People observe and organize the world to stay safe, take action to stay healthy, and respond to emergency situations. <p style="margin-left: 20px;"> AIDS PATH * Bicycle Pedestrian Bus Personal Safety Earthquake Playground Fire </p>
Resources: △ FOSS + Scholastic				
△ Wood △ Paper △ Fabric + Matter	+ Day and Night	△ Trees △ Animals 2 x 2 + Alive	+ Your Senses	See safety resource list * Positive Actions Toward Health

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum – Grade 1				Revision Date: Summer 2005
SYSTEMS & INTERACTIONS				
Physical Science	Earth/Space Science	Life Science	Health	Safety
<p>The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.</p>	<p>Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.</p>	<p>Living things are diverse, interdependent, and evolving.</p>	<p>The human body is made up of complex systems that interact to keep an individual alive.</p>	<p>People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.</p>
<p style="text-align: center;"><u>Matter</u></p> <ul style="list-style-type: none"> • Matter changes in a variety of ways. 	<p style="text-align: center;"><u>Weather</u></p> <ul style="list-style-type: none"> • The sun, air and water are integral components of weather. 	<p style="text-align: center;"><u>Basic Needs & Survival</u></p> <ul style="list-style-type: none"> • All living things have basic needs for survival. • A habitat provides for the basic needs of plants and animals. 	<p style="text-align: center;"><u>Parts & Systems</u></p> <ul style="list-style-type: none"> • The human body has parts and systems that work together as integral parts of the whole body system. 	<p style="text-align: center;"><u>Safety</u></p> <ul style="list-style-type: none"> • People make decisions to avoid hazards, risk behaviors and follow procedures during emergencies. • Diseases can be communicable and non-communicable. Germs can be spread. • Personal hygiene and emotional self-understanding affect one's attitude and well-being. <p style="margin-left: 20px;"> AIDS PATH * Bicycle Pedestrian Bus Personal Safety Earthquake Playground Fire </p>
Resources: △ FOSS + Scholastic				
△ Solids & Liquids + Solids, Liquids & Gases	△ Air & Water + Air, Sun, Water	△ New Plants + Living Things	+ Body Systems	See safety resource list * Positive Actions Toward Health

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum – Grade 2				Revision Date: Summer 2005
PATTERNS OF CHANGE				
Physical Science	Earth/Space Science	Life Science	Health	Safety
<p>The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.</p>	<p>Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.</p>	<p>Living things are diverse, interdependent, and evolving.</p>	<p>The human body is made up of complex systems that interact to keep an individual alive.</p>	<p>People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.</p>
<p><u>Balance & Motion</u></p> <ul style="list-style-type: none"> • Motion and balance involve changing place or position. • People use objects and tools to solve problems, take measurements, conduct and record observations, and create change. <p><u>Sound Waves</u></p> <ul style="list-style-type: none"> • Sound is an energy that originates from a vibrating source and travels through matter. • Pitch depends upon the properties of sound waves. 	<p><u>Geological Changes</u></p> <ul style="list-style-type: none"> • Weathering • Erosion • Processes and forces cause the earth to change. • Geologic changes may occur as a result of water, waves, wind or ice that erode rocks and soil in some areas while depositing them in others. 	<p><u>Life Cycles</u></p> <ul style="list-style-type: none"> • Cycles are changes that occur in predictable patterns and flow in one directions with no beginning or end. 	<p><u>Healthy Living</u></p> <ul style="list-style-type: none"> • The human body has needs that must be met. • People require adequate nutrition, exercise and rest in order to stay healthy. 	<p><u>Safety</u></p> <ul style="list-style-type: none"> • Making healthy choices and using refusal skills become tools to avoid hazards and risk behaviors. • Proper procedures and skills can be learned in dressing minor cuts or wounds, as well as ways to respond to larger emergency situations. • Some communicable diseases and infections can be avoided with good personal hygiene practices. Germs spread in a variety of ways. <p style="margin-left: 20px;"> AIDS PATH * Bicycle Pedestrian Bus Personal Safety Earthquake Playground Fire </p>

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Resources: △ FOSS + Scholastic				
△ Balance & Motion △ The Physics of Sound + Sound	△ Pebbles, Sand & Silt + Rocks & Soils	△ Insects + Life Cycles	+ Staying Well	See safety resource list * Positive Actions Toward Health

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum – Grade 3			Revision Date: Summer 2005	
SCALE & STRUCTURE				
Physical Science	Earth/Space Science	Life Science	Health	Safety
<p>The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.</p>	<p>Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.</p>	<p>Living things are diverse, interdependent, and evolving.</p>	<p>The human body is made up of complex systems that interact to keep an individual alive.</p>	<p>People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.</p>
	<p><u>Earth Materials / Rocks & Minerals</u></p> <ul style="list-style-type: none"> • Land is a resource that is changed by natural processes and human activities. • Earth materials are changed and used for human enterprise. • Rocks and minerals may be identified by their properties. • Recycling <p><u>Outer Space</u></p> <ul style="list-style-type: none"> • Our universe and its component parts are in constant motion. • The earth's unique position in space renders it capable of supporting life. 	<p><u>Classification of Living Things</u></p> <ul style="list-style-type: none"> • Organisms have observable structures, behaviors, and predictable life cycles. • Organisms can be grouped into 5 large kingdoms, based upon shared characteristics. 	<p><u>Bones & Muscles</u></p> <ul style="list-style-type: none"> • The human body has structures that support and move it and are integral parts of the whole body system. • People make decisions that affect the health of their body. 	<p><u>Safety</u></p> <ul style="list-style-type: none"> • People recognize risk behaviors, methods of prevention, and basic refusal skills necessary to avoid dangerous or unhealthy situations. • People follow emergency procedures and are aware of basic first aid to save themselves and assist others. • Communicable diseases spread a variety of ways. Some communicable diseases are contagious. There is a relationship between personal hygiene and the spread of disease. • People create circles of support, which grow larger and include a wider range of people, for personal well-being and acting responsibly in relation to the powers of peer pressure. <p>AIDS PATH *</p>

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				Bicycle Bus Earthquake Fire	Pedestrian Personal Safety Playground
Resources: △ FOSS + Scholastic					
	△ Earth Materials + Using Land + Solar System	△ Structures of Life + Classifying Living Things	△ Human Body + Support Systems	See safety resource list * Positive Actions Toward Health	

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum – Grade 4				Revision Date: Summer 2005
SYSTEMS & INTERACTIONS				
Physical Science	Earth/Space Science	Life Science	Health	Safety
The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.	Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.	Living things are diverse, interdependent, and evolving.	The human body is made up of complex systems that interact to keep an individual alive.	People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.
	<p style="text-align: center;"><u>Water / Oceans</u></p> <ul style="list-style-type: none"> • The ocean is one global body of water with unique characteristics and resources. 	<p style="text-align: center;"><u>Animal / Plant Interactions</u></p> <ul style="list-style-type: none"> • Living things are dependent upon the conditions of their environment. • Interactions of living things result in a flow of matter and energy. • Food web 	<p style="text-align: center;"><u>Digestion, Respiratory & Circulatory Systems</u></p> <ul style="list-style-type: none"> • The digestive, respiratory and circulatory systems are integral parts of the whole body system. • People make decisions that affect the health of the body. 	<p style="text-align: center;"><u>Safety</u></p> <ul style="list-style-type: none"> • People plan ahead to avoid risk behavior in order to support healthy choices. • Diseases are communicable and non-communicable. Some communicable diseases are difficult to get because of the body's immune system. Germs spread in a variety of ways. Safe behaviors prevent infection. • Healthy choices and positive attitudes affect personal well-being. • People follow emergency procedures and are aware of basic first aid to save themselves and assist others. • Circles of support and influence grow larger and include a wider range of people. People act responsibly in relation to the powers of peer pressure and seek help to insure personal

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				safety. AIDS Bicycle Bus Earthquake Fire	PATH * Pedestrian Personal Safety Playground
Resources: △ FOSS + Scholastic					
	△ Water + The Ocean	△ Environments + Organisms & Environment	△ Food & Nutrition	See safety resource list * Positive Actions Toward Health	

West Linn-Wilsonville School District Primary (Grades K-5) Science/Health Curriculum

Science/Health Curriculum – Grade 5				Revision Date: Summer 2005	
PATTERNS OF CHANGE					
Physical Science	Earth/Space Science	Life Science	Health	Safety	
<p>The physical world is governed by the properties and interactions of matter and energy. People apply tools, skills and scientific knowledge to find, investigate and solve problems.</p>	<p>Earth, within the universe, is constantly changing. All parts of an environment are interrelated: therefore, changes to one part affect other parts.</p>	<p>Living things are diverse, interdependent, and evolving.</p>	<p>The human body is made up of complex systems that interact to keep an individual alive.</p>	<p>People make decisions that impact their safety. Living safely, preventing accidents and illness, and observing and following proper procedures during emergencies will advance through knowledge acquisition and skill development.</p>	
<p style="text-align: center;"><u>Energy</u></p> <ul style="list-style-type: none"> Light, heat, and pressure interact with matter and can be changed into other forms of energy. <p style="text-align: center;"><u>Science & Technology in Society</u></p> <ul style="list-style-type: none"> Relationships between things involve interactions and cause/effect events. <p style="text-align: center;"><u>Electricity & Magnetism</u></p> <ul style="list-style-type: none"> People have invented systems that generate, transmit and use electricity. 	<p style="text-align: center;"><u>Landforms</u></p> <ul style="list-style-type: none"> Movement within the earth and physical and chemical weathering change and build land forms. 	<p style="text-align: center;"><u>Change Over Time (Heredity & Mutation)</u></p> <ul style="list-style-type: none"> Environmental changes or human intervention can alter characteristics of a population that may affect succeeding generations. 	<p style="text-align: center;"><u>Brain & Nerves</u></p> <ul style="list-style-type: none"> The nervous system controls many body systems and is an integral part of the human body. People make decisions that affect the health of their body. 	<p style="text-align: center;"><u>Safety</u></p> <ul style="list-style-type: none"> People plan ahead to avoid risk behavior in order to support healthy choices. People analyze risk, make decisions, and set goals for a healthy safe life. Diseases are communicable and non-communicable. Some communicable diseases are difficult to get because of the body's immune system. Germs spread in a variety of ways. Safe behaviors prevent infection. Healthy choices and positive attitudes affect personal well-being. People follow emergency procedures and are aware of basic first aid to save themselves and assist others. Circles of support and influence grow larger and include a wider range of people. People act 	

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				<p>responsibly in relation to the powers of peer pressure and seek help to insure personal safety.</p> <p>AIDS PATH * Bicycle Pedestrian Bus Personal Safety Earthquake Playground Fire</p>
Resources: △ FOSS + Scholastic				
<ul style="list-style-type: none"> △ Solar Energy + Light △ Models & Designs △ Variables △ Levers & Pulleys + How People Invent + How People Use Electricity △ Electricity & Magnetism 	<ul style="list-style-type: none"> △ Landforms + How Landforms Change 	<ul style="list-style-type: none"> + Change Over Time 	<ul style="list-style-type: none"> + Control Systems 	<p>See safety resource list * Positive Actions Toward Health</p>