



Correlation

Standards of Learning for Virginia

Science

Grade 6

**For more information about this correlation,
a quote or to place an order, please contact:**

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April 2016

**Standards of Learning for Virginia
Science
Grade Six**

The sixth-grade Standards continue to emphasize data analysis and experimentation. Methods are studied for testing the validity of predictions and conclusions. Scientific methodology, focusing on precision in stating hypotheses and defining dependent and independent variables, is strongly reinforced. The concept of change is explored through the study of transformations of energy and matter. The Standards present an integrated focus on the role of the sun’s energy in Earth’s systems, on water in the environment, on air and atmosphere, and on basic chemistry concepts. A more detailed understanding of the solar system and space exploration becomes a focus of instruction. Natural resource management, its relation to public policy, and cost/benefit tradeoffs in conservation policies are introduced.

The sixth-grade Standards continue to focus on student growth in understanding the nature of science. This scientific view defines the idea that explanations of nature are developed and tested using observation, experimentation, models, evidence, and systematic processes. The nature of science includes the concepts that scientific explanations are based on logical thinking; are subject to rules of evidence; are consistent with observational, inferential, and experimental evidence; are open to rational critique; and are subject to refinement and change with the addition of new scientific evidence. The nature of science includes the concept that science can provide explanations about nature and can predict potential consequences of actions, but cannot be used to answer all questions.

Scientific Investigation, Reasoning and Logic

6.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations.

Does This Make Sense? Constructing Explanations	O/740	978-1-4042-4064-3	42.00	Rosen Classroom
Inquiry and Investigation (The Process of Science)(PRIME)(Bridges)(below-level)	R/750	Y05755	69.00	Benchmark Education
Inquiry and Investigation (The Process of Science)(PRIME)(on-level)	X/910	Y05690	69.00	Benchmark Education
Investigating the Scientific Method with Max Axiom, Super Scientist	T/760	978-1-4296-2055-0	48.70	Capstone Classroom
Sorting It Out: Evaluating Data	O/740	978-1-4042-4065-0	42.00	Rosen Classroom
The Tools of Scientists (PRIME)(Bridges) (below-level)	Q/760	Y05763	69.00	Benchmark Education
The Tools of Scientists(PRIME)(on-level)	V/890	Y05698	69.00	Benchmark Education
Using Math in Science (PRIME)(Bridges) (below-level)	R/760	Y05758	69.00	Benchmark Education
Using Math in Science (PRIME)(on-level)	V/950	Y05693	69.00	Benchmark Education
What Are the Facts? Collecting Information	N/690	978-1-4042-4067-4	42.00	Rosen Classroom
What Did You Find Out? Reporting Conclusions	N/690	978-1-4042-4068-1	42.00	Rosen Classroom

<i>Title</i>	<i>GR / Lexile</i>	<i>ISBN or Code</i>	<i>Six-pack Price</i>	<i>Publisher</i>
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Titles in italics are single copy; order six to make a six-pack.

Force, Motion and Energy

6.2 The student will investigate and understand basic sources of energy, their origins, transformations, and uses.

Bridging the Energy Gap (The Environment Challenge) *	U/940	978-1-4109-4311-8	54.94	Capstone Classroom
Energy Resources (PRIME)(Bridges) (below-level)	R/840	Y05752	69.00	Benchmark Education
Energy Resources (PRIME)(on-level)	V/940	Y05687	69.00	Benchmark Education
The Nature of Energy (PRIME) (Bridges) (below-level)	V/810	Y13448	69.00	Benchmark Education
The Nature of Energy (PRIME)(on-level)	Z/1110	Y13424	69.00	Benchmark Education

6.3 The student will investigate and understand the role of solar energy in driving most natural processes within the atmosphere, the hydrosphere, and on Earth's surface.

Energy From Oceans and Moving Water: Hydroelectric, Wave and Tidal Power	T/1070	978-1-4777-0278-9	60.00	Rosen Classroom
Energy from the Sun: Solar Power	W/1140	978-1-4777-0280-0	60.00	Rosen Classroom
Thermal Energy (PRIME) (Bridges)(below-level)	W/810	Y13449	69.00	Benchmark Education
Thermal Energy (PRIME)(on-level)	Z/1030	Y13425	69.00	Benchmark Education

Matter

6.4 The student will investigate and understand that all matter is made up of atoms

Carbon Chemistry (PRIME)(Bridges) (below-level)	R/830	Y05748	69.00	Benchmark Education
Carbon Chemistry (PRIME)(on-level)	X/940	Y05683	69.00	Benchmark Education
Earth's Resources (Gareth Stevens Vital Science-Earth Science)	S/1210	978-1-4339-0474-5	71.70	Gareth Stevens Cl
Foundations of Matter (PRIME)(Bridges) (below-level)	R/770	Y05750	69.00	Benchmark Education
Foundations of Matter (PRIME)(on-level)	X/900	Y05685	69.00	Benchmark Education
Interactions of Matter (PRIME)(Bridges) (below-level)	R/780	Y05754	69.00	Benchmark Education
Interactions of Matter (PRIME)(on-level)	V/930	Y05689	69.00	Benchmark Education
Solid, Liquid, Gas: What Is Matter?	P/820	978-0-8239-8637-8	36.00	Rosen Classroom
States of Matter	T/950	978-1-4042-2353-0	36.00	Rosen Classroom
The Nature of Matter (PRIME)(below-level)	R/740	Y05759	69.00	Benchmark Education
The Nature of Matter (PRIME)(on-level)	W/870	Y05694	69.00	Benchmark Education

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6.5 The student will investigate and understand the unique properties and characteristics of water and its roles in the natural and human-made environment.

A Drop in the Ocean: The Story of Water	Q/780	978-1-4048-1446-2	48.70	Capstone Classroom
Earth: The Water Planet (Bridges) (below-level)	N/550	A76546	54.00	Benchmark Education
Earth: The Water Planet (Navigators)(on-level)	U/630	A50838	51.00	Benchmark Education
Properties of Water (Gareth Stevens Vital Science – Earth Science)	S/1210	978-1-4339-0475-2	71.70	Gareth Stevens Cl
Sustaining Our Natural Resources (The Environmental Challenge) *	U/840	978-1-4109-4314-9	54.94	Capstone Classroom
Water in the Atmosphere	Q/820	978-1-4042-5200-4	48.00	Rosen Classroom

6.6 The student will investigate and understand the properties of air and the structure and dynamics of Earth’s atmosphere.

After the Earthquake	R/810	A9612	51.00	Benchmark Education
Air and Weather	S/980	978-1-4339-0471-4	71.70	Gareth Stevens Cl
Anatomy of a Hurricane	W/880	978-1-4296-7366-2	59.70	Capstone Classroom
Anatomy of a Tornado	Y/870	978-1-4296-6445-5	59.70	Capstone Classroom
Catastrophic Storms	T/760	A5082X	51.00	Benchmark Education
Climate (PRIME)(Bridges)(below-level)	R/740	Y05749	69.00	Benchmark Education
Climate (PRIME)(on-level)	W/870	Y05684	69.00	Benchmark Education
Severe Weather (PRIME)(Bridges) (below-level)	R/780	Y05761	69.00	Benchmark Education
Severe Weather (PRIME)(on-level)	W/990	Y05696	69.00	Benchmark Education
The Atmosphere (PRIME)(Bridges) (below-level)	Q/790	Y05762	69.00	Benchmark Education
The Atmosphere (PRIME)(on-level)	W/920	Y05697	69.00	Benchmark Education
Tsunamis	S/750	A50811	51.00	Benchmark Education
Weather on Earth (PRIME)(Bridges) (below-level)	R/780	Y05764	69.00	Benchmark Education
Weather on Earth (PRIME)(on-level)	W/880	Y05699	69.00	Benchmark Education
Weatherworks	S/860	A9868	51.00	Benchmark Education
Why Does Thunder Clap? All About Weather	O/740	978-1-4488-0408-5	42.00	Rosen Classroom

Living Systems

6.7 The student will investigate and understand the natural processes and human interactions that affect watershed systems.

People of the Chesapeake Bay	R/840	978-1-4339-9778-5	53.70	Gareth Stevens Cl
Plants and Animals of the Chesapeake Bay	R/820	978-1-4339-9782-2	53.70	Gareth Stevens Cl
Tributaries of the Chesapeake Bay	R/850	978-1-4339-9794-5	53.70	Gareth Stevens Cl

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Interrelationships in Earth/Space Systems

6.8 The student will investigate and understand the organization of the solar system and the interactions among the various bodies that comprise it.

An Illustrated Timeline of Space Exploration	R/850	978-1-4048-7022-2	44.74	Capstone Classroom
Asteroids, Comets and Meteoroids (The Solar System and Beyond)	R/830	978-1-4296-7224-5	48.70	Capstone Classroom
Black Holes and Supernovas (The Solar System and Beyond)	R/760	978-1-4296-7226-9	48.70	Capstone Classroom
Comets, Asteroids and Meteors (Astronaut Travel Guides)	R/1040	978-1-4109-4585-3	54.94	Capstone Classroom
Destined for Space: Our Story of Exploration	T/720	978-1-4296-8524-5	54.70	Capstone Classroom
Earth (Astronaut Travel Guides)	R/980	978-1-4109-4586-0	54.94	Capstone Classroom
Everyday Physical Science Experiments with Gravity	O/730	978-1-4042-5190-8	48.00	Rosen Classroom
How Do Scientists Explore Space? (Earth, Space and Beyond)	P/750	978-1-4109-4188-6	54.94	Capstone Classroom
Jupiter and the Outer Planets	R/880	978-1-4109-4587-7	54.94	Capstone Classroom
Life of a Comet (Bridges)(below-level)	Q/710	A98876	56.00	Benchmark Education
Life of a Comet (Navigators)(on-level)	W/800	A62426	56.00	Benchmark Education
Mars (Astronaut Travel Guides)	R/960	978-1-4109-4588-4	54.94	Capstone Classroom
Mercury and Venus (Astronaut Travel Guides)	R/970	978-1-4109-4589-1	54.94	Capstone Classroom
Our Earth (The Solar System and Beyond)	R/820	978-1-4296-6407-3	48.70	Capstone Classroom
Our Moon (The Solar System and Beyond)	R/730	978-1-4296-6408-0	48.70	Capstone Classroom
Our Sun (The Solar System and Beyond)	R/760	978-1-4296-6409-7	48.70	Capstone Classroom
Robots in Space (The Solar System and Beyond)	R/740	978-1-4296-7230-6	48.70	Capstone Classroom
Stars (The Solar System and Beyond)	R/800	978-1-4296-6411-0	48.70	Capstone Classroom
Stars and Constellations (The Night Sky and Other Amazing Sights in Space)	N/700	978-1-4329-7527-2	48.94	Capstone Classroom
Stars and Galaxies (Astronaut Travel Guides)	R/960	978-1-4109-4591-4	54.94	Capstone Classroom
The Sun (Astronaut Travel Guides)	R/1010	978-1-4109-4592-1	54.94	Capstone Classroom
The Dwarf Planets (The Solar System and Beyond)	R/800	978-1-4296-6406-6	48.70	Capstone Classroom
The Milky Way and Other Galaxies (The Solar System and Beyond)	R/740	978-1-4296-7228-3	48.70	Capstone Classroom
The Moon (Astronaut Travel Guides)	R/1010	978-1-4109-4590-7	54.94	Capstone Classroom
The Planets of Our Solar System (The Solar System and Beyond)	R/810	978-1-4296-6410-3	48.70	Capstone Classroom
What Do We Know About Stars and Galaxies? (Earth, Space and Beyond)	P/730	978-1-4109-4192-3	54.94	Capstone Classroom
What Do We Know About the Solar System? (Earth, Space and Beyond)	P/700	978-1-4109-4191-6	54.94	Capstone Classroom
What Does Space Exploration Do For Us? (Earth, Space and Beyond)	P/850	978-1-4109-4189-3	54.94	Capstone Classroom

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Earth Resources

6.9 The student will investigate and understand public policy decisions relating to the environment.

Biofuels (Energy for the Future and Global Warming)	Q/900	978-1-4339-0420-0	59.70	Gareth Stevens Cl
Bridging the Energy Gap (The Environment Challenge) *	U/940	978-1-4109-4311-8	54.94	Capstone Classroom
Fossil Fuels (Energy for the Future and Global Warming)	Q/790	978-1-4339-0421-9	59.70	Gareth Stevens Cl
Making Good Choices About Biodegradability	Z/1100	978-1-4358-5609-7	66.00	Rosen Classroom
Making Good Choices About Nonrenewable Resources	Z/1100	978-1-4358-5605-9	66.00	Rosen Classroom
Making Good Choices About Renewable Resources	Z/1100	978-1-4358-5603-5	66.00	Rosen Classroom
Oil, Gas and Coal (Energy for Today)	O/750	978-1-4339-0430-1	35.70	Gareth Stevens Cl
Reducing Pollution and Waste (The Environment Challenge)	U/1080	978-1-4109-4313-2	54.94	Capstone Classroom
Solar Energy (Energy in Action)	P/800	978-1-4042-2378-3	36.00	Rosen Classroom
Solar Power (Energy for Today)	O/700	978-1-4339-0432-5	35.70	Gareth Stevens Cl
Sustaining Our Natural Resources (The Environmental Challenge) *	U/840	978-1-4109-4314-9	54.94	Capstone Classroom
Water Power (Energy for Today)	O/650	978-1-4339-0433-2	35.70	Gareth Stevens Cl
Water Power (Energy in Action)	T/975	978-1-4042-2380-6	36.00	Rosen Classroom
Wind Power (Energy for Today)	O/680	978-1-4339-0434-9	35.70	Gareth Stevens Cl

*Title in multiple strands

NOTE: Prices and availability subject to change without notice.

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