

TITLE	NJ STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
In the Garden ISBN 0022858334 6 PK ISBN 0022865365	5.1.4.B.1., 5.1.4.B.2., 5.5.2.A.2.	B	30	<i>In the Garden</i> contrasts living and nonliving things and identifies some of the characteristics of living things, such as growth and change.	living thing plant rock
A World of Animals * ISBN 0022846093 6 PK ISBN 0022864016	5.5.2.B.1., 5.10.2.A.1.	E	600	<i>A World of Animals</i> describes adaptations of dolphins, polar bears, elephants, beavers, woodpeckers, and camels.	fin hoof hooves trunk
Amazing Animals ISBN 0022846115 6 PK ISBN 0022864024	5.5.2.A.1., 5.5.2.B.1., 5.10.2.A.1.	G	300	<i>Amazing Animals</i> describes adaptations of animals and relates adaptations to specific environments.	gill spines webbed feet
Animal Homes ISBN 0022858466 6 PK ISBN 0022865403	5.5.2.B.1., 5.10.2.A.1.	G	190	<i>Animal Homes</i> identifies the environments, such as deserts, oceans, and forests, in which various animals make their homes.	cactus desert forest
Boats Float ISBN 0022846220 6 PK ISBN 0022864121	5.1.4.A.1., 5.6.2.A.1., 5.6.2.A.3.	B	BR	<i>Boats Float</i> describes solids, liquids, and gases, and defines the term <i>float</i> . It also identifies that solids have a definite shape, but liquids do not.	float gas liquid
Bryce Canyon ISBN 0022858474 6 PK ISBN 0022865438	5.1.4.B.1., 5.8.2.A.1.	H	240	<i>Bryce Canyon</i> explains how wind and water have shaped Bryce Canyon over time, and that similar processes shape other rocks.	rock water wind

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Dolphin Sounds ISBN 0022858385 6 PK ISBN 0022865551	5.10.2.A.1., this book also provides an introduction to standard 5.7.2.B.1.	B	120	<i>Dolphin Sounds</i> illustrates how echolocation works, and describes how dolphins use echolocation to find food.	dolphin echo sound
Forces At Play ISBN 0022861653 6 PK ISBN 0022865543	5.7.2.A.2.	H	240	<i>Forces at Play</i> defines force as a push or pull, defines the term <i>work</i> , and identifies how forces are involved in baseball, basketball, and tug-of-war.	force gravity work
Fun With Magnets ISBN 0022858377 6 PK ISBN 0022865527	5.1.4.A.1., 5.6.2.A.1.	B	270	<i>Fun With Magnets</i> explains how magnets attract metal objects and can attract or repel one another. It also describes some uses of magnets.	magnet metal push
Good to Eat * ISBN 0022858393 6 PK ISBN 0022865373	5.10.2.B.1.	E	230	<i>Good to Eat</i> identifies plant parts (stems, leaves, flowers, roots, fruits, and leaves) that humans use for food. The book uses lettuce, celery, broccoli, carrots, cantaloupe, and strawberries as examples.	fruit root stem
How Does Matter Change? ISBN 0022846271 6 PK ISBN 0022864172	5.6.2.A.3.	G	240	<i>How Does Matter Change?</i> describes physical changes of matter, such as changes of shape and changes of state. It also defines the term <i>matter</i> and describes solids, liquids, and gases.	gas liquid matter
Ice Hotels ISBN 0022858512 6 PK ISBN 0022865519	5.6.2.A.3.	G	270	<i>Ice Hotels</i> uses pictures and descriptions of an ice hotel to highlight the differences between solids and liquids. It also points out the role of temperature change in melting.	liquid melts solid
Land All Around ISBN 0022858342 6 PK ISBN 0022865411	5.8.2.D.1.	B	BR	<i>Land All Around</i> describes the characteristics of mountains, valleys, and plains.	mountain plain valley

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Let's Bake a Cake! ISBN 0022846255 6 PK ISBN 0022864156	5.6.2.A.3.	B	270	<i>Let's Bake a Cake</i> uses a discussion of baking to introduce the terms <i>melt</i> , <i>solid</i> , <i>liquid</i> , and <i>mixture</i> .	liquid melt mixture
Look for Rocks * ISBN 0022858407 6 PK ISBN 002286542X	5.1.4.A.1., 5.1.4.B.1., 5.8.2.D.1.	E	90	<i>Look for Rocks</i> explains that rocks can be found in many places, such as yards, parks, and beaches, and uses photos to illustrate the characteristics of sandstone, slate, and granite.	granite sandstone slate
Make It New * ISBN 0022858415 6 PK ISBN 0022865454	5.10.2.B.1.	F	BR	<i>Make It New</i> shows that paper, glass, and cans can be recycled to make new products.	bottle can recycle
Mars ISBN 0022858490 6 PK ISBN 0022865497	5.9.2.A.1.	H	230	<i>Mars</i> compares and contrasts characteristics, such as size, position, temperature, and presence of water, of Earth and Mars.	planet Mars Sun
Parts of Plants ISBN 0022858458 6 PK ISBN 0022865381	5.5.2.A.1., 5.10.2.A.1.	H	250	<i>Parts of Plants</i> describes leaves, flowers, stems, roots, fruits, and seeds and identifies the function of each.	root seed soil
Pond Life ISBN 0022861645 6 PK ISBN 0022864032	5.5.2.B.1.	D	390	<i>Pond Life</i> identifies some of the living things found in ponds, including plants, fish, frogs, and insects and points out that a pond is a freshwater environment.	insect living thing pond

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Ready, Set, Go! * ISBN 0022858423 6 PK ISBN 0022865489	5.2.4.A.1.	E	330	Ready, Set, Go explores how astronauts prepare for a flight on the space shuttle. It describes a sequence of steps using the words <i>first</i> , <i>next</i> , <i>then</i> , and <i>finally</i> .	astronaut space shuttle spacesuit
Solids, Liquids, and Gases * ISBN 0022846239 6 PK ISBN 002286413X	5.1.4.B.1., 5.6.2.A.3.	E	370	Solids, Liquids, and Gases discusses the properties of solids, liquids, and gases and gives everyday examples of each.	gas liquid solid
Sun Power ISBN 0022858520 6 PK ISBN 0022865578	5.9.2.A.1., 5.10.2.B.1.	G	350	Sun Power describes energy and explains that some energy comes from the Sun. It also discusses ways that solar energy can be used, such as heating homes and powering vehicles.	energy solar energy Sun
The Four Seasons ISBN 0022846182 6 PK ISBN 0022864091	5.8.2.B.4.	B	330	The Four Seasons describes spring, summer, fall, and winter by picturing the weather, activities, and clothing associated with each.	fall spring summer
The Story of Water ISBN 0022846247 6 PK ISBN 0022864148	5.6.2.A.3., 5.8.2.B.1., 5.8.2.B.2.	G	370	The Story of Water identifies the importance of water, discusses the water cycle, and explains the role of the Sun's energy in the water cycle.	clouds gas water cycle
The Tallest Tree * ISBN 0022846069 6 PK ISBN 0022863974	5.3.4.A.2.	E	470	The Tallest Tree explains that some seeds germinate and develop into trees, such as the General Sherman Sequoia. Illustrations allow students to compare the height of the General Sherman to other objects.	cone seedling sequoia

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Things Change * ISBN 0022846263 6 PK ISBN 0022864164	5.1.4.A.1., 5.1.4.A.2., 5.6.2.A.3.	E	300	<i>Things Change</i> identifies changes such as boiling, freezing, melting, mixing, and growing and illustrates everyday examples of these changes.	boil freeze melt
Two Trees ISBN 0022846077 6 PK ISBN 0022863982	5.5.2.B.1., 5.10.2.A.1.	H	430	<i>Two Trees</i> compares and contrasts trees found at the coast with trees found in the desert. Adaptations to each environment are pictured and identified.	desert roots soil
Watch It Grow ISBN 0022846050 6 PK ISBN 0022863966	5.5.2.A.1.	B	70	<i>Watch It Grow</i> identifies what seeds and plants need to grow and develop. The germination and growth of a tomato seed illustrates this process.	plant Sun water
Water Fun ISBN 0022858350 6 PK ISBN 0022865446	5.8.2.B.1., 5.10.2.B.1.	B	BR	<i>Water Fun</i> identifies recreational uses of water, points out that humans need water to drink, and explains that water should not be wasted.	ocean waste water
What Goes Around? ISBN 0022858369 6 PK ISBN 0022865470	5.9.2.A.1.	B	120	<i>What Goes Around?</i> explains the motion of the Earth and Moon relative to the Sun and to one another. Diagrams shows Earth's orbit around the Sun and the Moon's orbit around Earth.	Earth Moon Sun
What Is Wool? ISBN 0022858482 6 PK ISBN 0022865462	5.10.2.B.1.	H	330	<i>What Is Wool?</i> explains that wool is produced by sheep and used by humans. The process of producing clothing using wool is described.	sheep wool yarn

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What People and Animals Need ISBN 0022846085 6 PK ISBN 0022863990	5.5.2.A.1.	B	310	<i>What People and Animals Need</i> identifies that both people and animals need food, water, air, and shelter to live. The terms <i>breathe</i> , <i>energy</i> , and <i>shelter</i> are defined.	breathe energy shelter
What Sounds Say * ISBN 002285844X 6 PK ISBN 002286556X	This book provides an introduction to standard 5.7.2.B.1.	F	130	<i>What Sounds Say</i> explains that sounds can be used to communicate and that some sounds, such as sirens and train whistles, are used to indicate danger.	bell siren sound
What Would We Do Without Bees? * ISBN 0022846131 6 PK ISBN 0022864040	5.10.2.B.1.	E	430	<i>What Would We Do Without Bees?</i> describes the role of bees in pollination of plants and in honey production. The process of pollination of an apple tree is illustrated.	honey nectar pollen
When the Weather Changes * ISBN 0022846190 6 PK ISBN 0022864105	5.3.4.C.1., 5.8.2.B.4.	E	230	<i>When the Weather Changes</i> describes the weather, activities, and clothing commonly associated with each season.	fall season weather
Where Are They? * ISBN 0022858431 6 PK ISBN 0022865535	This book provides an introduction to standard 5.7.2.A.1.	F	100	<i>Where Are They?</i> uses position words, such as <i>on</i> , <i>under</i> , <i>behind</i> , <i>in</i> , and <i>inside</i> to describe the position of animals relative to objects.	bush egg log

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New Jersey Core Curriculum Standards for Science

STANDARD 5.1

(SCIENTIFIC PROCESSES) ALL STUDENTS WILL DEVELOP PROBLEM-SOLVING, DECISION-MAKING AND INQUIRY SKILLS, REFLECTED BY FORMULATING USABLE QUESTIONS AND HYPOTHESES, PLANNING EXPERIMENTS, CONDUCTING SYSTEMATIC OBSERVATIONS, INTERPRETING AND ANALYZING DATA, DRAWING CONCLUSIONS, AND COMMUNICATING RESULTS.

5.1.4.A.**Habits of Mind**

5.1.4.A.1.

Raise questions about the world around them and be willing to seek answers through making careful observations and experimentation.

5.1.4.A.2.

Keep records that describe observations, carefully distinguish actual observations from ideas and speculations, and are understandable weeks and months later.

5.1.4.A.3.

Recognize that when a science investigation is replicated, very similar results are expected.

5.1.4.A.4.

Know that when solving a problem it is important to plan and get ideas and help from other people.

5.1.4.B.**Inquiry and Problem Solving**

5.1.4.B.1.

Develop strategies and skills for information-gathering and problem-solving, using appropriate tools and technologies.

5.1.4.B.2.

Identify the evidence used in an explanation.

5.1.4.C.**Safety**

5.1.4.C.1.

Recognize that conducting science activities requires an awareness of potential hazards and the need for safe practices.

5.1.4.C.2.

Understand and practice safety procedures for conducting science investigations.

STANDARD 5.2

(Science and Society) All students will develop an understanding of how people of various cultures have contributed to the advancement of science and technology, and how major discoveries and events have advanced science and technology.

5.2.4.A.**Cultural Contributions**

5.2.4.A.1.

Describe how people in different cultures have made and continue to make contributions to science and technology.

5.2.4.B.**Historical Perspectives**

5.2.4.B.1.

Hear, read, write, and talk about scientists and inventors in historical context.

STANDARD 5.3

(Mathematical Applications) All students will integrate mathematics as a tool for problem-solving in science, and as a means of expressing and/or modeling scientific theories.

5.3.4.A.**Numerical Operations**

5.3.4.A.1.

Determine the reasonableness of estimates, measurements, and computations of quantities when doing science.

5.3.4.A.2.

Recognize and comprehend the orders of magnitude associated with large and small physical quantities.

5.3.4.A.3.

Express quantities using appropriate number formats, such as:

5.3.4.A.3.a.

Integers.

5.3.4.A.3.b.

Fractions.

5.3.4.B.**Geometry and Measurement**

5.3.4.B.1.

Select appropriate measuring instruments based on the degree of precision required.

5.3.4.B.2.

Use a variety of measuring instruments and record measured quantities using the appropriate units.

5.3.4.C.**Patterns and Algebra**

5.3.4.C.1. Identify patterns when observing the natural and constructed world.

5.3.4.D. Data Analysis and Probability

5.3.4.D.1. Use tables and graphs to represent and interpret data.

STANDARD 5.4

(Nature and Process of Technology) All students will understand the interrelationships between science and technology and develop a conceptual understanding of the nature and process of technology.

5.4.2.A. Science and Technology

5.4.2.A.1. Indicators for this strand are introduced at a higher grade level.

5.4.2.B. Nature of Technology

5.4.2.B.1. Select and use simple tools and materials to complete a task.

5.4.2.C. Technological Design

5.4.2.C.1. Make a plan in order to design a solution to a problem.

5.4.2.C.2. Describe a toy or other familiar object as a system with parts that work together.

STANDARD 5.5

(Characteristics of Life) All students will gain an understanding of the structure, characteristics, and basic needs of organisms and will investigate the diversity of life.

5.5.2.A. Matter, Energy, and Organization in Living Systems

5.5.2.A.1. Investigate the basic needs of humans and other organisms.

5.5.2.A.2. Compare and contrast essential characteristics that distinguish living things from nonliving things.

5.5.2.B. Diversity and Biological Evolution

5.5.2.B.1. Recognize that different types of plants and animals live in different parts of the world.

5.5.2.B.2. Recognize that some kinds of organisms that once lived on earth have completely disappeared.

5.5.2.C. Reproduction and Heredity

5.5.2.C.1. Recognize that humans and other organisms resemble their parents.

STANDARD 5.6

Chemistry) All students will gain an understanding of the structure and behavior of matter.

5.6.2.A. Structure and Properties of Matter

5.6.2.A.1. Sort objects according to the materials from which they are made or their physical properties, and give a rationale for sorting.

5.6.2.A.2. Use magnifiers to observe materials, then draw and describe what more can be seen using the tools.

5.6.2.A.3. Observe that water can be a liquid or a solid and can change from one form to the other.

5.6.2.B. Chemical Reactions

5.6.2.B.1. Indicators for this strand are introduced at a higher grade level.

STANDARD 5.7

(Physics) All students will gain an understanding of natural laws as they apply to motion, forces, and energy transformations.

5.7.2.A. Motion and Forces

5.7.2.A.1. Distinguish among the different ways objects can move such as:

5.7.2.A.1.a. fast and slow.

5.7.2.A.1.b. in a straight line.

5.7.2.A.1.c. in a circular path.

5.7.2.A.1.d.

back and forth.

5.7.2.A.2.

Show that the position and motion of an object can be changed by pushing or pulling the object.

5.7.2.B.**Energy Transformations**

5.7.2.B.1.

Demonstrate that sound can be produced by vibrating objects.

STANDARD 5.8**(Earth Science) All students will gain an understanding of the structure, dynamics, and geophysical systems of the earth.****5.8.2.A.****Earth's Properties and Materials**

5.8.2.A.1.

Observe and describe rocks and soil.

5.8.2.B.**Atmosphere and Weather**

5.8.2.B.1.

Identify the sources and uses of water.

5.8.2.B.2.

Recognize that water can disappear (evaporate) and collect on cold surfaces (condense).

5.8.2.B.3.

Describe current weather conditions and recognize how those conditions affect our daily lives.

5.8.2.B.4.

Describe daily and seasonal changes and patterns in the weather.

5.8.2.C.**Processes that Shape the Earth**

5.8.2.C.1.

Indicators for this strand are introduced at a higher grade level.

5.8.2.D.**How We Study the Earth**

5.8.2.D.1.

Record observations that describe the features of the natural world in their local environment.

STANDARD 5.9**(Astronomy & Space Science) All students will gain an understanding of the origin, evolution, and structure of the universe.**

5.9.2.A. Earth, Moon, Sun System

5.9.2.A.1. Recognize that the sun supplies light and heat to the Earth.

5.9.2.A.2. Observe the patterns of day and night and the movements of the shadows of an objects on the Earth during the course of a day.

5.9.2.B. Solar System

5.9.2.B.1. Recognize that the sun can only be seen during the day, but the moon can be seen sometimes at night and sometimes during the day.

5.9.2.C. Stars

5.9.2.C.1. Observe that stars are many, scattered, and different in brightness.

5.9.2.C.2. Observe that the position of the stars, with respect to each other (constellations) is unchanging

5.9.2.D. Galaxies and Universe

Indicators for this strand are introduced at a higher grade level.

STANDARD 5.10 (Environmental Studies) All students will develop an understanding of the environment as a system of interdependent components affected by human activity and natural phenomena.

5.10.2.A. Natural Systems and Interactions

5.10.2.A.1. Associate organisms' basic needs with how they meet those needs within their surroundings.

5.10.2.B. Human Interactions and Impact

5.10.2.B.1. Identify various needs of humans that are supplied by the natural or constructed environment.