

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
A Trip Through the Solar System * ISBN 0022846662 6 PK ISBN 0022864539	Earth/Space # 13, Earth/Space # 14	N	730	<i>A Trip Through the Solar System</i> describes the characteristics of each planet in the solar system, describes the conditions that allow life to flourish on Earth, and mentions that humans have observed the planets for thousands of years.
Amazing Earth ISBN 0022846654 6 PK ISBN 0022864520	Earth/Space # 10, Earth/Space # 12	L	620	<i>Amazing Earth</i> describes Earth's lithosphere, explains that the lithosphere is divided into plates that move, and compares Earth's lithosphere to that of other planets. The hydrosphere and atmosphere are also discussed in this book.
Amazing Invertebrates * ISBN 0022858784 6 PK ISBN 0022865837	Life # 1, Life # 8	N	520	<i>Amazing Invertebrates</i> distinguishes vertebrates and invertebrates and describes in detail many kinds of invertebrates. Invertebrate adaptations for movement, finding food, and staying safe are discussed.
Animal Life Cycles * ISBN 0022858792 6 PK ISBN 0022865861	Life # 1, Life # 3, Life # 4	N	450	<i>Animal Life Cycles</i> defines the terms life span and metamorphosis. It describes the life cycle of various animals, including mammals, birds, butterflies, and amphibians.
Bad Weather ISBN 0022858768 6 PK ISBN 0022865942	Earth/Space # 6, Earth/Space # 7, Earth/Space # 10, Earth/Space # 11, Physical # 3	J	430	<i>Bad Weather</i> defines weather and uses a diagram to illustrate the water cycle. It also describes in detail many forms of severe weather including thunderstorms, lightning, tornadoes, and hurricanes.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
California Condor ISBN 0022846581 6 PK ISBN 0022864458	Life # 6, Life # 7, Life # 8, Life # 11	L	640	California Condor identifies the factors that led to the decline of the California condor population. It also describes measures that are being taken to save the condor from extinction.
Chocolate ISBN 0022846719 6 PK ISBN 0022864571	Physical # 2, Physical # 3	O	700	Chocolate explores the history of chocolate, resources required to make chocolate commercially, and the manufacturing process used to make chocolate.
Claws and Wings and Other Neat Things ISBN 0022859438 6 PK ISBN 0022865845	Life # 6, Life # 9	Q	620	Claws and Wings and Other Neat Things describes adaptations that help living things survive. Examples include a falcon's wings, a wolf's fur, and a badger's claws.
Cool Cats ISBN 0022846522 6 PK ISBN 0022864393	Life # 6, Life # 8, Life # 9	L	510	Cool Cats describes the characteristics of different members of the cat family. Similarities and difference between different types of cats are discussed.
Coral Reefs * ISBN 0022846565 6 PK ISBN 0022864431	Life # 7, Life # 11	N	750	Coral Reefs identifies locations where coral reefs are found, explains how coral reefs are formed, and describes the great variety of living things found in a coral reef environment. It also describes ways that human activity threatens coral reefs and ways that coral reefs can be protected.
Electrical Inventions ISBN 002285939X 6 PK ISBN 0022866019	Physical # 4, Physical # 5, Physical # 6	P	700	Electrical Inventions describes inventions, such as the electric light and the electric motor. Information about inventors and current electrical innovations are also included.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
Energy for Your Body * ISBN 0022846735 6 PK ISBN 0022864598	Physical # 4	N	780	Energy for Your Body explains why the human body needs energy, identifies that food is the energy source used by humans, and describes how the digestive system changes food to a form the body can use.
Exploring Mars ISBN 0022846670 6 PK ISBN 0022864547	Earth/Space # 13	P	730	Exploring Mars explains how humans have learned about Mars throughout history. Technology, such as orbiters and landers, which advance science are also described.
Fossil Hunters ISBN 0022861696 6 PK ISBN 0022865926	Earth/Space # 3, Earth/Space # 12	I	610	Fossil Hunters describes how fossils are formed, what paleontologists can learn by studying fossils, and tools that fossil hunters use.
Gems * ISBN 0022858814 6 PK ISBN 0022865934	Earth/Space # 1, Earth/Space # 2, Physical # 1	N	540	Gems describes gems and minerals, describes how to grow crystals, and identifies the many uses of diamonds.
Glassmaking ISBN 0022846689 6 PK ISBN 0022864555	Physical # 2, Physical # 3	M	670	Glassmaking identifies the resources used to produce glass, describes the process of manufacturing glass, and includes a timeline of the history of glass.
Growing a Garden ISBN 0022858741 6 PK ISBN 0022865853	Life # 2, Life # 11	I	400	Growing a Garden explains that humans use gardens to produce food and describes the function of a plant's parts. The basic needs of plants are identified and photosynthesis is defined.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
How Earthquakes & Volcanoes Shape the Earth * ISBN 0022858806 6 PK ISBN 002286590X	Earth/Space # 4, Earth/Space # 5, Earth/Space # 12	N	580	<i>How Earthquakes and Volcanoes Shape Earth</i> describes tectonic plates, illustrates how volcanoes and earthquakes change Earth's surface, and explains how scientists help people stay safe in the event of a volcanic eruption or earthquake.
Living Communities ISBN 002285875X 6 PK ISBN 0022865888	Life # 6, Life # 11	J	460	<i>Living Communities</i> identifies the components of an ecosystem, explains the interactions that occur in ecosystems, and describes in detail ecosystems found in hot deserts, cold deserts, grasslands, tundra, and rain forests.
Machines That Build ISBN 0022859454 6 PK ISBN 0022866000	Tech/Eng # 1.3	P	690	<i>Machines That Build</i> defines the scientific meaning of the word work, illustrates examples of simple machines, and shows how simple machines are combined in machines used in construction.
Mighty Metals ISBN 0022858776 6 PK ISBN 0022865969	Tech/Eng # 1.1	J	430	<i>Mighty Metals</i> describes how metals are used and how metals are mined. The properties of particular metals that makes them well-suited for certain applications are described.
Moving Fast ISBN 0022861718 6 PK ISBN 0022865993	Physical # 9	J	700	<i>Moving Fast</i> describes and compares the speeds of the fastest-moving animals, cars, trains, planes and people.
Natural Defenses * ISBN 0022846530 6 PK ISBN 0022864407	Life # 2, Life # 8, Life # 9	N	740	<i>Natural Defenses</i> describes adaptations that plants and animals use to stay safe. Examples of adaptations described include thorns, quills, poisons, and bad smells.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
Predator and Prey ISBN 002286167X 6 PK ISBN 0022865896	Life # 6, Life # 7, Life # 8, Life # 11	O	680	Predators and Prey describes the predator/prey relationship, and identifies adaptations that enhance predators' ability to hunt and preys' ability to stay safe.
Sun Stories ISBN 002284662x 6 PK ISBN 0022864482	Earth/Space # 13, Earth/Space # 14, Physical # 4	L	540	Sun Stories describes the importance of the Sun. It also explores ways that ancient cultures, such as the Egyptians, Greeks, Maya, and Aztecs, explained the Sun.
The Sounds of Music ISBN 0022846727 6 PK ISBN 002286458X	Physical # 11	L	780	The Sounds of Music explains that sound is generated by vibrating objects and describes how the ear hears sounds. It gives a detailed description of each family of musical instruments.
The Way Eyes See It * ISBN 002284676X 6 PK ISBN 0022864636	Life # 6, Tech/Eng # 2.4	N	690	The Way Eyes See It describes the human eye and compares it to several kinds of animal eyes.
Volcano! ISBN 0022861688 6 PK ISBN 0022865918	Earth/Space # 12	O	650	Volcano! describes volcanic eruptions in detail. It explains the cause of eruptions, the effects of eruption, and methods scientists use to predict eruptions.
Watching the Weather * ISBN 0022858822 6 PK ISBN 0022865950	Earth/Space # 6, 3.1.C.2	M	510	Watching the Weather defines weather, describes tools used to track weather, and includes instructions for setting up a weather station.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
Water, Water Everywhere * ISBN 0022846697 6 PK ISBN 0022864563	Earth/Space # 10, Earth/Space # 11, Physical # 2, Physical # 3	N	730	<i>Water, Water, Everywhere</i> describes the three states in which water exists on Earth, explains the properties of water molecules, and describes the water cycle.
Wetlands ISBN 0022846611 6 PK ISBN 0022864474	Life # 7	O	670	<i>Wetlands</i> describes different types of wetlands, identifies some living things found in wetlands, explains the ecological and economic importance of wetlands, and describes measures that can be taken to save wetlands.
What Makes You Special? ISBN 0022858849 6 PK ISBN 002286587X	Life # 5	P	510	<i>What Makes You Special?</i> describes genetic traits, explains how traits are passed from parent to offspring, and illustrates the structure of DNA.
What Sinks and Floats ISBN 0022858857 6 PK ISBN 0022865985	Earth/Space # 3, Physical # 1	P	490	<i>What Sinks and Floats</i> defines matter and density. It also describes experiments about sinking and floating that students can carry out.
What Your Body is Made Of * ISBN 0022858830 6 PK ISBN 0022865977	No correlation	N	540	<i>What Your Body Is Made Of</i> identifies the most common elements in the human body, describes the role of water in the body, and explains how food is used to supply nutrients to the body.
Why We Need the Sun ISBN 0022846646 6 PK ISBN 0022864512	Earth/Space # 10, Earth/Space # 11, Earth/Space # 13, Earth/Space # 14, Life # 11, Physical # 3	O	630	<i>Why We Need the Sun</i> describes how the Sun impacts Earth's weather and how fossil fuels form. It also describes Sun safety tips.

* - Also available in an English Language Learner version

TITLE	MA STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY
Wind Energy ISBN 0022846743 6 PK ISBN 002286461X	Earth/Space # 6, Physical # 4, Physical # 5	P	730	<i>Wind Energy</i> explains how wind energy has been used in the past and present. It also offers predictions about ways that wind energy may be used in the future.

* - Also available in an English Language Learner version

Massachusetts Science and Technology/Engineering Curriculum Framework

Standard

Earth and Space Science, Grade 3

Rocks and Their Properties

- Earth/Space # 1 Give a simple explanation of what a mineral is and some examples, e.g., quartz, mica.
- Earth/Space # 2 Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these different physical properties.
- Earth/Space # 3 Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.

Soil

- Earth/Space # 4 Explain and give examples of the ways in which soil is formed (the weathering of rock by water and wind and from the decomposition of plant and animal remains).

Earth/Space # 5 Recognize and discuss the different properties of soil, including color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.

Weather

Earth/Space # 6 Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time.

Earth/Space # 7 Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.

Earth/Space # 8 Describe how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.

Earth/Space # 9 Differentiate between weather and climate.

The Water Cycle

Earth/Space # 10 Describe how water on earth cycles in different forms and in different locations, including underground and in the atmosphere.

Earth/Space # 11 Give examples of how the cycling of water, both in and out of the atmosphere, has an effect on climate.

Earth's History

Earth/Space # 12 Give examples of how the surface of the earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.

The Earth in the Solar System

Earth/Space # 13 Recognize that the earth is part of a system called the "solar system" that includes the sun (a star), planets, and many moons. The earth is the third planet from the sun in our solar system.

Earth/Space # 14 Recognize that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours. Make connections between the rotation of the earth and day/night, and the apparent movement of the sun, moon, and stars across the sky.

Earth/Space # 15 Describe the changes that occur in the observable shape of the moon over the course of a month.

Standard**Life Science (Biology), Grade 3****Characteristics of Plants and Animals**

Life # 1 Classify plants and animals according to the physical characteristics that they share.

Structures and Functions

Life # 2 Identify the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transport, reproduction, growth, and protection.

Life # 3 Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.

Life # 4 Describe the major stages that characterize the life cycle of the frog and butterfly as they go through metamorphosis.

Life # 5 Differentiate between observed characteristics of plants and animals that are fully inherited (e.g., color of flower, shape of leaves, color of eyes, number of appendages) and characteristics that are affected by the climate or environment (e.g., browning of leaves due to too much sun, language spoken).

Adaptations of Living Things

Life # 6 Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive, e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.

Life # 7 Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).

Life # 8 Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment. Recognize that some animal behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, etc.).

Life # 9 Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.

Life # 10 Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.

Energy and Living Things

Life # 11

Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumers to decomposers.

Standard**Physical Sciences (Chemistry and Physics), Grade 3****Properties of Objects and Materials**

Physical # 1

Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).

States of Matter

Physical # 2

Compare and contrast solids, liquids, and gases based on the basic properties of each of these states of matter.

Physical # 3

Describe how water can be changed from one state to another by adding or taking away heat.

Forms of Energy

Physical # 4

Identify the basic forms of energy (light, sound, heat, electrical, and magnetic). Recognize that energy is the ability to cause motion or create change.

Physical # 5

Give examples of how energy can be transferred from one form to another.

Electrical Energy

Physical # 6

Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce light, heat, and sound.

Physical # 7

Identify and classify objects and materials that conduct electricity and objects and materials that are insulators of electricity.

Physical # 8

Explain how electromagnets can be made, and give examples of how they can be used.

Magnetic Energy

- Physical # 9 Recognize that magnets have poles that repel and attract each other.
- Physical # 10 Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.

Sound Energy

- Physical # 11 Recognize that sound is produced by vibrating objects and requires a medium through which to travel. Relate the rate of vibration to the pitch of the sound.

Light Energy

- Physical # 12 Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted, and absorbed.

Standard**Technology/Engineering, Grade 3****Materials and Tools**

- Tech/Eng # 1.1 Identify materials used to accomplish a design task based on a specific property, e.g., strength, hardness, and flexibility.
- Tech/Eng # 1.2 Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.
- Tech/Eng # 1.3 Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.

Engineering Design

- Tech/Eng # 2.1 Identify a problem that reflects the need for shelter, storage, or convenience.
- Tech/Eng # 2.2 Describe different ways in which a problem can be represented, e.g., sketches, diagrams, graphic organizers, and lists.

Tech/Eng # 2.3

Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.

Tech/Eng # 2.4

Compare natural systems with mechanical systems that are designed to serve similar purposes, e.g., a bird's wings as compared to an airplane's wings.