

TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>A Favorite Season</b> ISBN 0022789731 6 PK ISBN 22793062	4.1.A.a, 4.1.A.b, 5.2.F.b, 6.2.C.a, 7.1.B.a, 7.1.E.a	D	90	<b>A Favorite Season</b> describes characteristics of each of the four seasons, and uses pictures to illustrate weather and activities associated with each season	spring summer winter
<b>All About Animals</b> ISBN 0022845917 6 PK ISBN 22863826	3.1.D.a, 7.1.E.a	C	380	<b>All About Animals</b> describes characteristics that help animals survive in their specific habitats. Photo are used to illustrate each of the animals and their habitats.	blubber hoof hooves
<b>All Kinds of Plants</b> ISBN 0022789669 6 PK ISBN 22792996	1.1.A.a, 3.1.D.a, 7.1.B.a, 7.1.E.a	B	BR	<b>All Kinds of Plants</b> uses simple words and pictures to describe and compare plants. This book also identifies some plants that are commonly used by people as food.	food plant
<b>America, The Beautiful</b> ISBN 0022845925 6 PK ISBN 22863834	2.1.A.a	A	230	<b>America the Beautiful</b> introduces the terms mountain and canyon in a simple rhyming text. These landforms are shown in photos from the point of view of a soaring eagle.	canyon mountain
<b>Animals Grow</b> ISBN 002281079X 6 PK ISBN 22827137	3.1.D.a, 3.3.A.a, 7.1.E.a	D	210	<b>Animals Grow</b> shows the growth and development of animals such as giraffes and bears. The life cycle of a monarch butterfly is described with the words "grow" and "change," and a three-photo sequence shows the steps of butterfly's life cycle.	change grow
<b>Animals on the Move</b> ISBN 0022845895 6 PK ISBN 22863818	3.1.D.a, 7.1.B.a	B	180	<b>Animals on the Move</b> uses photos to show how different kinds of animals move. Crawling, running, leaping, flying, and swimming are each shown.	crawl fly leap

\* - Also available in an English Language Learner version

TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>At the Petting Zoo</b> ISBN 0022789650 6 PK ISBN 22792988	1.1.A.a, 3.1.D.a, 7.1.E.a	C	NP	<i>At the Petting Zoo</i> uses illustrations and single-word descriptions to identify differences among animals.	<b>smooth</b> <b>rough</b>
<b>Clouds</b> ISBN 002281082X 6 PK ISBN 22827161	5.2.F.a, 5.2.F.b, 7.1.B.a, 7.1.E.a	C	150	<i>Clouds</i> describes differences among clouds and uses photos to illustrate different types of clouds. This books also identifies clouds as the source of rain and snow, and asks students to consider whether fog is a cloud.	<b>cloud</b> <b>rain</b> <b>snow</b>
<b>From Seed to Sunflower</b> ISBN 0022845879 6 PK ISBN 22863788	3.1.D.a, 3.3.A.a, 3.3.A.b, 7.1.E.a	C	320	<i>From Seed to Sunflower</i> shows and describes the life cycle of a sunflower plant.	<b>flower</b> <b>seed</b> <b>sunflower</b>
<b>Good Morning</b> ISBN 0022784594 6 PK ISBN 22792880	6.2.A.b, 7.1.E.a	B	BR	<i>Good Morning</i> shows a variety of animals in the morning and in the evening. Students are asked to think about things that typically occur in the morning.	<b>morning</b>
<b>I Like Ice</b> ISBN 0022846034 6 PK ISBN 002286394X	7.1.E.a	B	210	<i>I Like Ice</i> explains that water is a solid when it is cold and a liquid when it gets warmer. The terms frozen and melts are used to describe changes in state.	<b>frozen</b> <b>icicle</b> <b>melt</b>
<b>Land High and Low</b> ISBN 0022810811 6 PK ISBN 22827153	7.1.E.a	C	150	<i>Land High and Low</i> describes mountains, valleys, canyons, and shows the ocean shore. Activities associated with each landform, such as hiking and sledding, are also mentioned.	<b>canyon</b> <b>mountain</b> <b>valley</b>

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TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>Made from Clay</b> ISBN 0022845992 6 PK ISBN 22863915	1.1.A.b, 1.1.A.c, 8.1.A.a	B	260	<i>Made From Clay</i> identifies clay as an earth material and shows the many ways that people use clay.	clay mask pot
<b>Making Sounds</b> ISBN 0022820272 6 PK ISBN 22869174	1.2.A.a, 7.1.B.a	C	70	<i>Let's Make Sounds</i> shows several different ways that students can generate sounds. Photographs show students using recycled materials as musical instruments.	sound
<b>Matter Changes</b> ISBN 0022846042 6 PK ISBN 22863958	1.1.A.c, 7.1.B.a, 7.1.C.a, 7.1.E.a	C	220	<i>Matter Changes</i> describes matter, explains that matter is made up of tiny parts, and shows the three common states of matter. The role of heat in changes of state is also identified.	gas liquid solid
<b>Melting Snow</b> ISBN 0022846026 6 PK ISBN 22863931	5.2.F.b, 6.2.C.a, 7.1.B.a, 7.1.C.a, 7.1.C.b, 7.1.E.a	A	40	<i>Melting Snow</i> describes the change of state from solid to liquid that occurs when sunlight warms snow.	melting puddle Sun
<b>Our Desert Home</b> ISBN 0022789723 6 PK ISBN 22793054	3.1.D.a, 7.1.A.a, 7.1.A.b, 7.1.B.a, 7.1.B.d, 7.1.E.a	C	BR	<i>Our Desert Home</i> uses illustrations to identify the plants, insects, reptiles, birds, and mammals that live in a desert habitat.	bird reptile mammal
<b>Our Land</b> ISBN 0022845933 6 PK ISBN 22863842	7.1.E.a	B	330	<i>Our Land</i> uses photographs to illustrate landforms and habitats, such as mountains, forests, valleys, deserts, rivers, and oceans.	land ocean valley

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TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>Plant Parts</b> ISBN 0022789677 6 PK ISBN 22793003	3.1.D.a, 7.1.B.a	C	270	<i>Plant Parts</i> identifies roots, stems, leaves, flowers, cones, and fruits as plant parts.	fruit root stem
<b>Plants Grow</b> ISBN 0022810781 6 PK ISBN 22827129	3.1.D.a, 7.1.E.a	B	BR	<i>Plants Grow</i> identifies water, light, and soil as basic needs of plants.	soil
<b>Recycle, Reduce, Reuse</b> ISBN 0022845941 6 PK ISBN 22863850	7.1.E.a	C	340	<i>Recycle, Reduce, Reuse</i> uses brief explanations and photos to define each of these methods of protecting the environment.	recycle reduce reuse
<b>Rocks</b> ISBN 0022810803 6 PK ISBN 22827145	1.1.A.a, 1.1.A.b, 1.1.A.c, 7.1.B.a	C	20	<i>Rocks</i> compares the colors, sizes, and textures of a variety of rocks.	rock
<b>Seasons</b> ISBN 002284595X 6 PK ISBN 22863869	4.1.A.a, 4.1.A.b, 5.2.F.b, 6.2.C.a, 7.1.E.a	A	50	<i>Seasons</i> illustrates the weather, clothing, and activities associated with each of the four seasons.	season weather
<b>Small Plants Tall Plants</b> ISBN 0022845852 6 PK ISBN 22863761	1.1.A.a, 7.1.B.a	A	310	<i>Small Plants, Tall Plants</i> describes the characteristics of some types of plants and points out differences among plants.	moss redwood sunflower

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TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>Soft or Hard?</b> ISBN 0022845984 6 PK ISBN 22863893	1.1.A.a, 1.1.A.b, 1.1.A.c, 7.1.B.a	A	BR	<i>Soft or Hard?</i> defines matter and describes different textures associated with solid matter. Examples of objects with different textures are identified.	<b>matter solid</b>
<b>That Night Sky</b> ISBN 0022810838 6 PK ISBN 002282717X	6.1.A.a, 6.1.A.b, 6.2.B.a, 6.2.B.b, 7.1.B.a, 7.1.E.a	C	80	<i>The Night Sky</i> describes objects that are visible in the night sky, including the Moon and stars. Patterns of stars and phases of the Moon are pictures.	<b>moon stars</b>
<b>Toys that Move</b> ISBN 0022789715 6 PK ISBN 22793046	2.2.A.a, 7.1.E.a	C	330	<i>Toys That Move</i> uses toys to illustrate the fact that pushes and pulls (forces) change the motion of objects.	<b>push pull</b>
<b>Water Moves</b> ISBN 0022810862 6 PK ISBN 22827218	1.1.A.a	C	BR	<i>Water Moves</i> uses simple rhyming text to identify some of the properties of solid and liquid water.	<b>water</b>
<b>What Can a Magnet Do?</b> ISBN 0022846018 6 PK ISBN 22863923	2.2.A.b, 7.1.A.a, 7.1.B.a, 7.1.B.b	C	260	<i>What Can a Magnet Do?</i> explains that magnets can push or pull objects and shows some applications of magnets.	<b>magnet pull push</b>
<b>What is the Weather?</b> ISBN 0022845968 6 PK ISBN 22863877	5.1.C.a, 5.2.F.a, 7.1.B.a, 7.1.E.a	B	BR	<i>What Is the Weather?</i> uses the terms sunny, rainy, windy, cloudy, and snowy to describe the weather.	<b>cloudy weather windy</b>

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TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
<b>What Kind of Animal Are You?</b> ISBN 0022845887 6 PK ISBN 22863796	3.1.D.a, 7.1.E.a	A	BR	<i>What Kind of Animal Are You?</i> points out characteristics of birds, fish, and mammals, and leads students to the conclusion that humans are mammals.	feather mammal scales
<b>What Will I Wear Today?</b> ISBN 0022845976 6 PK ISBN 22863885	4.1.A.b, 5.2.F.b, 6.2.C.a, 7.1.E.a	C	170	<i>What Will I Wear Today?</i> shows clothing associated with each season of the year.	fall spring summer winter
<b>What's in the Soil?</b> ISBN 0022789707 6 PK ISBN 22793038	7.1.B.a, 7.1.E.a	C	BR	<i>What's In the Soil?</i> identifies living and nonliving things found in soil.	soil
<b>Where Do Plants Live?</b> ISBN 0022845860 6 PK ISBN 002286377X	3.1.D.a, 7.1.E.a	B	350	<i>Where Do Plants Live?</i> shows the types of plants associated with different environments.	dry plant wet
<b>Working with Clay</b> ISBN 0022810854 6 PK ISBN 22827196	1.1.A.b, 8.1.A.a	G	510	<i>Working with Clay</i> shows that clay is an earth material, and sequences the steps in making a useful product with clay.	clay
<b>Working with Wood</b> ISBN 0022810846 6 PK ISBN 22827188	7.1.E.a , 8.1.A.a	E	290	<i>Working with Wood</i> explains that wood comes from trees and describes the processes used to make useful products with wood.	wood

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# Missouri Science Grade-Level Expectations

## Strand 1

### Properties and Principles of Matter and Energy

#### 1.1

**Changes in properties and states of matter provide evidence of the atomic theory of matter**

#### 1.1.A

**Objects, and the materials they are made of, have properties that can be used to describe and classify them**

#### 1.1.A.a

Describe physical properties of objects (i.e., size, shape, color, mass) by using the senses, simple tools (e.g., magnifiers, equal arm balances), and/or nonstandard measures (e.g., bigger/smaller; more/less)

#### 1.1.A.b

Identify materials (e.g., cloth, paper, wood, rock, metal) that make up an object and some of the physical properties of the materials (e.g., color, texture, shiny/dull, odor, sound, taste, flexibility)

#### 1.1.A.c

Sort objects based on observable physical properties (e.g., size, material, color, shape, mass)

#### 1.2

**Energy has a source, can be transferred, and can be transformed into various forms but is conserved between and within systems**

#### 1.2.A

**Forms of energy have a source, a means of transfer (work and heat), and a receiver**

#### 1.2.A.a

Identify the sounds and their source of vibrations in everyday life (e.g., alarms, car horns, animals, machines, musical instruments)

#### 1.2.A.b

Compare different sounds (i.e., loudness, pitch, rhythm)

#### 1.2.A.c

Recognize that the ear serves as a receiver of sound

## Strand 2

### Properties and Principles of Force and Motion

#### 2.1

**The motion of an object is described by its change in position relative to another object or point**

- 2.1.A**                    **The motion of an object is described as a change in position, direction, and speed relative to another object (frame of reference)**
- 2.1.A.a                    Describe an object's position relative to another object (e.g., above, below, in front of, behind)\
- 2.2**                        **Forces affect motion**
- 2.2.A**                    **Forces are classified as either contact (pushes, pulls, friction, buoyancy) or non-contact forces (gravity, magnetism), that can be described in terms of direction and magnitude**
- 2.2.A.a                    Identify ways (push, pull) to cause some objects to move by touching them
- 2.2.A.b                    Recognize magnets cause some objects to move without touching them
- Strand 3**                    **Characteristics and Interactions of Living Organisms**
- 3.1**                        **There is a fundamental unity underlying the diversity of all living organisms**
- 3.1.D**                    **Plants and animals have different structures that serve similar functions necessary for the survival of the organism**
- 3.1.D.a                    Observe and compare the structures and behaviors of different kinds of plants and animals
- 3.3**                        **There is a genetic basis for the transfer of biological characteristics from one generation to the next through reproductive processes**
- 3.3.A**                    **There is heritable variation within every species of organism**
- 3.3.A.a                    Recognize that living things have offspring
- 3.3.A.b                    Recognize a parent – offspring relationship based on the organisms' physical similarities and differences
- Strand 4**                    **Changes in Ecosystems and Interactions of Organisms with their Environments**
- 4.1**                        **Organisms are interdependent with one another and with their environment**

**4.1.A All populations living together within a community interact with one another and with their environment in order to survive and maintain a balanced ecosystem**

4.1.A.a Describe how the seasons affect the behavior of plants and animals.

4.1.A.b Describe how the seasons affect the everyday life of humans (e.g., clothing, activities)

**Strand 5 Processes and Interactions of the Earth's Systems (Geosphere, Atmosphere, and Hydrosphere)**

**5.1 Earth's systems (geosphere, atmosphere, and hydrosphere) have common components and unique structures**

**5.1.C The atmosphere (air) is composed of a mixture of gases, including water vapor, and minute particles**

5.1.C.a Recognize moving air is felt as wind

**5.2 Earth's systems (geosphere, atmosphere, and hydrosphere) interact with one another as they undergo change by common processes**

**5.2.F Constantly changing properties of the atmosphere occur in patterns which are described as weather**

5.2.F.a Observe and describe daily weather: precipitation (e.g., snow, rain, sleet, fog), wind (i.e., light breezes to strong wind), cloud cover, temperature

5.2.F.b Observe and describe the general weather conditions that occur during each season

**Strand 6 Composition and Structure of the Universe and the Motion of the Objects Within It**

**6.1 The universe has observable properties and structure**

**6.1.A The Earth, Sun, and moon are part of a larger system that includes other planets and smaller celestial bodies**

6.1.A.a Observe and describe the presence of the Sun, moon, and stars in the sky

- 6.1.A.b Recognize there are more stars in the sky than anyone can easily count, but they are not scattered evenly and vary in brightness
- 6.2 Regular and predictable motions of objects in the universe can be described and explained as the result of gravitational forces**
- 6.2.A The apparent position of the Sun and other stars, as seen from Earth, changes in observable patterns**
- 6.2.A.a Describe the Sun as only being seen in the daytime
- 6.2.A.b Recognize the Sun appears to move across the sky from morning to night
- 6.2.B The apparent position of the moon, as seen from Earth, and its actual position relative to Earth change in observable patterns**
- 6.2.B.a Observe the moon can be seen sometimes at night and sometimes during the daytime
- 6.2.B.b Recognize the moon appears to change shape over the course of a month
- 6.2.C The regular and predictable motions of the Earth and moon relative to the Sun explain natural phenomena on Earth, such as day, month, year, shadows, moon phases, eclipses, tides, and seasons**
- 6.2.C.a Observe and describe the characteristics of the four seasons as they cycle through the year (summer, fall, winter, spring)
- Strand 7 Scientific Inquiry**
- 7.1 Science understanding is developed through the use of science process skills, scientific knowledge, scientific investigation, reasoning, and critical thinking**
- 7.1.A Scientific inquiry includes the ability of students to formulate a testable question and explanation, and to select appropriate investigative methods in order to obtain evidence relevant to the explanation**
- 7.1.A.a Pose questions about objects, materials, organisms and events in the environment

7.1.A.b Conduct a simple investigation (fair test) to answer a question

**7.1.B Scientific inquiry relies upon gathering evidence from qualitative and quantitative observations**

7.1.B.a Make qualitative observations using the five senses

7.1.B.b Make observations using simple tools and equipment (e.g., magnifiers/hand lenses, magnets, equal arm balances, thermometers)

7.1.B.c Measure length and mass using non-standard units

7.1.B.d Compare amounts/measurements

**7.1.C Evidence is used to formulate explanations**

7.1.C.a Use observations as support for reasonable explanations

7.1.C.b Use observations to describe relationships and patterns and to make predictions to be tested

**7.1.D Scientific inquiry includes evaluation of explanations (hypotheses, laws, theories) in light of scientific principles (understandings)**

7.1.D.a Compare explanations with prior knowledge

**7.1.E The nature of science relies upon communication of results and justification of explanations**

7.1.E.a Communicate observations using words, pictures, and numbers

**Strand 8**

**Impact of Science, Technology and Human Activity**

**8.1**

**The nature of technology can advance, and is advanced by, science as it seeks to apply scientific knowledge in ways that meet human needs**

**8.1.A**

**Designed objects are used to do things better or more easily and to do some things that could not otherwise be done at all**

- 8.1.A.a Recognize some objects occur in nature (natural objects); others have been designed and made by people
- 8.1.B Advances in technology often result in improved data collection and an increase in scientific information**
- 8.1.B.a Describe how tools have helped scientists make better observations (i.e., magnifiers)
- 8.3 Science and technology affect, and are affected by, society**
- 8.3.A People, alone or in groups, are always making discoveries about nature and inventing new ways to solve problems and get work done**
- 8.3.A.a Identify a question that was asked, or could be asked, or a problem that needed to be solved when given a brief scenario (fiction or nonfiction of individuals solving everyday problems or learning through discovery)
- 8.3.A.b Work with a group to solve a problem, giving due credit to the ideas and contributions of each group member (Assess Locally)