

TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
A Chemist In the Kitchen ISBN 0022859462 6 PK ISBN 0022866175	1.1.A.d, 1.1.B.b, 7.1.B.a, 7.1.E.a	L	680	<i>A Chemist in the Kitchen</i> defines the terms matter and chemistry, discusses elements, compounds, and mixtures, and gives procedures for several experiments that can be carried out in a kitchen.	chemist chemistry compound element mixture
A World of Microorganisms ISBN 0022846840 6 PK ISBN 0022864709	4.1.A.a, 4.1.A.b, 4.1.D.a, 5.1.A.a, 5.2.A.a, 5.3.A.b, 7.1.E.a	S	720	<i>A World of Microorganisms</i> explains that microorganisms are found almost everywhere, including in and on the human body, in water, and in the soil. This book also explains how vaccines can protect against disease.	bacteria cell microbe microorganism vaccine
Acids and Bases ISBN 0022859020 6 PK ISBN 0022866191	4.1.D.a, 5.3.A.b, 7.1.B.a, 7.1.C.a, 7.1.E.a	T	570	<i>Acids and Bases</i> describes the properties and uses of acids and bases and identifies the harmful effects of acid rain. The pH scale and neutralization are defined and described.	acid acidic base neutral pH
All About Elements ISBN 002285889X 6 PK ISBN 0022866140	1.1.A.d, 8.2.A.a	M	500	<i>All About Elements</i> defines the terms matter and element, discusses historical research of elements, explains the structure of the atom, and the development of the periodic table.	atom atomic weight element periodic table property
Animal Senses ISBN 0022858989 6 PK ISBN 002286606X	4.1.A.a, 4.2.A.c, 4.3.C.b, 4.3.C.c	T	670	<i>Animal Senses</i> discusses the five commonly recognized senses and ways in which animals use these senses. It also describes other senses possessed by some animals such as the ability to detect electricity or heat.	echolocation organ sound wave taste buds tentacle

* - Also available in an English Language Learner version

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Barrier Islands * ISBN 0022858938 6 PK ISBN 0022866116	4.1.D.a, 5.2.A.b, 5.2.A.c, 5.2.A.d, 5.3.A.a, 5.3.A.b	R	710	<i>Barrier Islands</i> describes the characteristics of barrier islands and the impact that erosion and hurricanes can have on barrier islands.	barrier island erosion hurricane storm surge tide
Caves: A World of Their Own * ISBN 0022846794 6 PK ISBN 0022864660	4.1.A.a, 4.1.A.b, 4.2.A.c, 5.2.A.b, 5.2.A.c, 8.2.A.a	Q	750	<i>Caves: A World of Their Own</i> describes how caves are formed and identifies adaptations of living things found in caves. An interview with a cave explorer allows students to learn more about careers in science.	ecosystem erosional limestone mineral solution
Constellations ISBN 0022859012 6 PK ISBN 0022866132	8.1.B.a, 8.2.A.a	T	530	<i>Constellations</i> explains that ancient Greeks were some of the first astronomers, identifies major constellations, and explains how the appearance of the night sky changes over the seasons. A star map is illustrated and explained.	astronomer astronomy constellation galaxy
Desert Animals and Plants ISBN 0022846786 6 PK ISBN 0022864652	4.1.A.a, 4.1.A.b, 4.3.C.a, 4.3.C.b, 4.3.C.c	O	650	<i>Desert Animals and Plants</i> describes the adaptations of desert organisms such as kangaroo rats, horned lizards, pupfish, jack rabbits, saguaro cacti, and sagebrush. An explanation of how each of these organisms survives in an environment with very little water is given, and specific adaptations are pictured.	adapt cold-blooded saguaro scaly spine
Diamonds ISBN 0022846859 6 PK ISBN 0022864717	1.1.A.d, 8.1.C.a	O	700	<i>Diamonds</i> discusses gemstones and minerals, identifies properties of diamonds, describes how diamonds are formed, and describes some uses of diamonds. Chapter 3 includes a labeled diagram of Earth's layers.	carbon gemstone kimberlite pipes mineral Moh's scale
El Nino ISBN 0022846948 6 PK ISBN 0022864792	4.1.D.a, 8.1.B.a	S	720	<i>El Nino</i> describes the weather patterns associated with El Nino and La Nina and identifies the impact of global warming on these weather patterns. This book also discusses technologies used by scientists to detect coming El Nino events.	air pressure drought El Nino global warming La Nina

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Fossils and Fossil Fuels ISBN 0022859004 6 PK ISBN 0022866094	4.1.D.a, 4.3.A.a, 5.3.A.b, 8.1.C.a	T	620	<i>Fossils and Fossil Fuels</i> explains how fossils form and discusses what can be learned by studying fossils. It also describes the formation of fossil fuels, the detrimental effects of fossil fuel use, and possible alternatives to fossil fuel.	acid rain fossil fossil fuel nonrenewable sedimentary rock
Glaciers ISBN 0022846883 6 PK ISBN 0022864741	4.1.D.a, 5.2.A.b, 5.2.A.d, 5.3.A.a	O	680	<i>Glaciers</i> describes different kinds of glaciers, how glaciers move, how glaciers change the land, the characteristics of an ice age, and the impact of global warming on glaciers.	glacier ice age iceberg moraine
Gold! ISBN 0022861726 6 PK ISBN 0022866167	1.1.A.d, 8.1.B.a, 8.1.C.a	T	730	<i>Gold!</i> describes the properties of gold, methods of mining for gold, reasons why gold is so valuable, and the impact of the Gold Rush on California's history. Uses of gold in medicine, telescopes, computers, telephones, and televisions are discussed	bullion geologist
Hidden Food Webs * ISBN 0022846832 6 PK ISBN 0022864695	4.1.A.a, 4.1.A.b, 4.2.A.a, 4.2.A.b, 4.2.A.c, 5.2.A.a, 5.3.A.b	Q	710	<i>Hidden Food Webs</i> describes food webs with an emphasis on the role of microorganisms in a variety of food webs. The terms producer, consumer, and decomposer are defined.	consumer decomposer food web microorganism producer
How Can We Save Them? ISBN 0022858997 6 PK ISBN 0022866086	4.1.A.a, 4.1.A.b, 4.1.A.c, 4.1.D.a, 5.3.A.b, 8.1.C.a, 8.3.A.a	U	740	<i>How Can We Save Them?</i> discusses the diversity of living things on Earth and identifies reasons why species become endangered. The impact of extinctions on ecosystems and strategies for saving endangered species are also discussed. Chapter 7 highlights actions that individuals can take to help save endangered plants and animals.	diversity endangered extinct habitat species
It's Electric * ISBN 0022846964 6 PK ISBN 0022864822	4.1.D.a, 8.1.C.a, 8.2.A.a	Q	710	<i>It's Electric</i> describes the role of electrons in electricity, how electricity is delivered to homes, ways that consumption of electricity can be reduced, and scientists who have explored electricity. Alternative methods of producing electricity are discussed in chapter 5.	electric current electricity fossil fuel turbine volt

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Levers in Our Lives ISBN 0022859039 6 PK ISBN 002286623X	7.1.B.a, 8.2.A.a	T	520	<i>Levers in Our Lives</i> describes how levers are used, discusses the three classes of levers, and identifies everyday examples of levers. The use of levers throughout history is described, including the role levers may have played in the building of the pyramids.	effort force fulcrum lever load simple machine
Lights and White Nights * ISBN 0022858946 6 PK ISBN 0022866124	8.1.B.a	Q	620	<i>Lights and White Nights</i> explains why Earth has seasons. It also explains how day and night at the poles are impacted by Earth's tilt on its axis, and explains how the Northern lights form.	atmosphere aurora horizon solar wind white night
Machines * ISBN 0022858970 6 PK ISBN 0022866221	2.2.D.b	R	680	<i>Machines</i> describes the six types of simple machines (inclined plane, wedge, screw, lever, wheel and axle, pulley) and ways that simple machines are combined to form compound machines. Examples of compound machines shown in the book include can openers, escalators, and bicycles.	compound machine inclined plane pulley screw simple machine
Maglev Trains ISBN 0022847014 6 PK ISBN 0022864865	5.3.A.a, 8.1.C.a, 8.2.A.a	S	680	<i>Maglev Trains</i> explains that maglev trains work by utilizing magnetic forces. It also describes advantages and disadvantages of this technology.	electromagnet guideway levitation magnet magnetic
Partners in Nature ISBN 0022846816 6 PK ISBN 0022864679	4.1.A.a, 4.1.A.b	T	700	<i>Partners in Nature</i> describes commensalism, parasitism, mutualism, and symbiosis. Examples of each type of relationship are described, for example, commensalism is illustrated by the relationship between remoras and sharks.	commensalism host mutualism parasite symbiosis
Rain Forests, Coral Reefs, and Deserts ISBN 0022859411 6 PK ISBN 0022866078	4.1.A.a, 4.1.A.b, 5.3.A.b, 8.3.A.a	L	700	<i>Rain Forests, Coral Reefs, and Deserts</i> describes the food chains in these ecosystems and identifies threats to these ecosystems. Ways that ecosystems can be saved are also discussed.	coral reef desert ecosystem food chain rain forest

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TITLE	MO STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Rocks * ISBN 0022846867 6 PK ISBN 0022864725	4.3.A.a, 5.1.A.b, 5.2.A.c, 5.2.A.d	Q	710	Rocks describes how rocks form, how they change as they move through the rock cycle, how fossils form, and careers that involve studying rocks. Igneous, metamorphic, and sedimentary rocks are described.	fossil geologist igneous metamorphic sedimentary
Scientists and Cells ISBN 0022858865 6 PK ISBN 0022866027	8.1.B.a, 8.1.C.a, 8.2.A.a	L	510	Scientists and Cells describes the invention of the microscope, the development of cell theory and germ theory, and modern research involving cells. This book emphasizes the cumulative nature of scientific discovery.	cell cell theory germ theory microscope theory
Sources of Energy ISBN 0022858903 6 PK ISBN 0022866213	4.1.D.a, 5.3.A.b, 8.1.C.a	N	560	Sources of Energy identifies common energy sources, such as moving water and fossil fuels and describes alternative energy sources, such as solar energy and wind energy. Diagrams show how coal is used to make electricity in power plants and how hydroelectric power plants produces electricity.	energy fossil fuel hydropower power plant solar energy
The GALILEO Mission to Jupiter ISBN 002285942X 6 PK ISBN 002286993X	8.1.B.a, 8.2.A.a	K	800	The Galileo Mission to Jupiter describes the discoveries made by the Galileo spacecraft and highlights the role of technology in advancing science.	asteroid astronomer mission outer planet probe
The Grand Canyon ISBN 0022846913 6 PK ISBN 0022864768	4.3.A.a, 5.1.A.b, 5.2.A.b, 5.2.A.c, 5.2.A.d	S	750	The Grand Canyon explains how the Grand Canyon was formed, illustrates some of the features of the Grand Canyon, and describes some of the fossils that can be found in the Grand Canyon.	erosion fossil sandstone shale stratum
The Story of Alloys * ISBN 0022858962 6 PK ISBN 0022866183	1.1.A.d, 1.1.B.b, 8.1.C.a	R	590	The Story of Alloys defines the term alloy, identifies the roles alloys have played in cultures throughout history, and discusses potential future uses of alloys.	alloy bronze property steel superalloy

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Thomas Edison ISBN 0022846956 6 PK ISBN 0022864814	1.2.F.a, 8.1.A.a, 8.1.B.a, 8.1.C.a, 8.2.A.a	O	700	<i>Thomas Edison</i> describes his life and inventions, such as the phonograph and the kinetograph. The cumulative nature of the development of technology is described.	kinetograph kinetoscope patent phonograph telegraph
What is a Platypus? * ISBN 0022846891 6 PK ISBN 002286475X	4.1.A.b, 4.2.A.c, 4.3.C.b, 4.3.C.c, 8.2.A.a	R	580	<i>What On Earth is a Platypus?</i> explains how scientists determined how to classify the platypus. It explains that scientific knowledge often develops over time and is the result of the work of many people.	gland kingdom mammal organ reptile
What is Happening to the Beach? * ISBN 0022858911 6 PK ISBN 0022866035	4.1.A.a, 5.2.A.b, 5.2.A.c, 5.2.A.d, 5.3.A.a, 5.3.A.b, 8.3.A.a	Q	700	<i>What is Happening to the Beach?</i> describes how erosion changes beaches and ways that people can prevent beaches from eroding too quickly.	beach dune erosion jetty seawall
What's New on Earth? * ISBN 002285892X 6 PK ISBN 0022866051	4.1.A.a, 4.1.A.b, 7.1.B.a, 8.1.B.a	R	650	<i>What's New On Earth?</i> describes some recently-discovered species and explains that the majority of Earth's species have yet to be discovered.	adaptation DNA environment rain forest species
What's the Matter? * ISBN 0022858954 6 PK ISBN 0022866159	5.1.A.b	R	600	<i>What's the Matter?</i> discusses matter, properties of matter, and states of matter in the context of a wide variety of sculptures.	alloy bronze neon property
Which Is Which? ISBN 0022858873 6 PK ISBN 0022866043	4.3.C.b	L	460	<i>Which is Which?</i> explains how animals are classified and identifies differences between pairs of animals that are commonly confused.	classify genus kingdom mammal species
Why Does It Rain? ISBN 0022858881 6 PK ISBN 0022866108	4.1.D.a, 5.3.A.b	L	500	<i>Why Does It Rain?</i> Describes the distribution of saltwater and freshwater on Earth, describes the water cycle, and discusses the processes of evaporation and condensation. The three states of water are illustrated and described.	condensation evaporation fresh water water cycle water vapor

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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 and compare the masses of objects to the nearest gram using balances

1.1.A.b

Describe and compare the volumes (the amount of space an object occupies) of objects using a graduated cylinder

1.1.A.c

Recognize no two objects can occupy the same space at the same time (e.g., water level rises when an object or substance, such as a rock, is placed in a quantity of water)

1.1.A.d

Classify types of materials (e.g., water, salt, sugar, iron filings, salt water) into substances (materials that have specific physical properties) or mixtures of substances by using their characteristic properties

1.1.B

Properties of mixtures depend upon the concentrations, properties, and interactions of particles

1.1.B.a

Identify water as a solvent that dissolves materials (Do NOT assess the term solvent)

1.1.B.b

Observe and describe how mixtures are made by combining solids or liquids, or a combination of these

1.1.B.c

Distinguish between the components in a mixture (e.g., trail mix, conglomerate rock, salad)

1.1.B.d

Describe ways to separate the components of a mixture by their properties (i.e., sorting, filtration, magnets, screening)

1.1.I

Mass is conserved during any physical or chemical change

1.1.I.a

Recognize that the total mass of a material remains constant whether it is together, in parts, or in a different state

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 Construct and diagram a complete electric circuit by using a source (e.g., battery), means of transfer (e.g., wires), and receiver (e.g., resistance bulbs, motors, fans)

1.2.A.b Observe and describe the evidence of energy transfer in a closed series circuit (e.g., lit bulb, moving motor, fan)

1.2.A.c Classify materials as conductors or insulators of electricity when placed within a circuit (e.g., wood, pencil lead, plastic, glass, aluminum foil, lemon juice, air, water)

1.2.F Energy can change from one form to another within systems, but the total amount remains the same

1.2.F.a Identify the evidence of energy transformations (temperature change, light, sound, motion, and magnetic effects) that occur in electrical circuits

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 Properties and Principles of Force and Motion

2.1.A.a Classify different types of motion (straight line, curved, back and forth)

2.1.A.b Describe an object's motion in terms of distance and time

2.2 Forces affect motion

2.2.A Forces are classified as either contact forces (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 the forces acting on the motion of objects traveling in a straight line

- 2.2.A.b Recognize friction as a force that slows down or stops a moving object that is touching another object or surface
- 2.2.A.c Compare the forces (measured by a spring scale in Newtons) required to overcome friction when an object moves over different surfaces (i.e., rough/smooth)
- 2.2.B Every object exerts a gravitational force on every other object**
- 2.2.B.a Determine the gravitational pull of the Earth on an object (weight) using a spring scale
- 2.2.D Newton's Laws of Motion explain the interaction of mass and forces, and are used to predict changes in motion**
- 2.2.D.a Recognize that balanced forces do not affect an object's motion
- 2.2.D.b Describe how unbalanced forces acting on an object changes its speed (faster/slower), direction of motion, or both
- 2.2.D.c Explain how increasing or decreasing the amount of force on an object affects the motion of that object
- 2.2.D.d Explain how the mass of an object (e.g., cars, marbles, rocks, boulders) affects the force required to move it
- 2.2.D.e Predict how the change in speed of an object (i.e., faster/slower/remains the same) is affected by the amount of force applied to an object and the mass of the object
- 2.2.D.f Predict the effects of an electrostatic force (static electricity) on the motion of objects (attract or repel)
- 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 Identify the ways a specific organism may interact with other organisms or with the environment (e.g., pollination, shelter, seed dispersal, camouflage, migration, hibernation, defensive mechanism)
- 4.1.A.b Recognize different environments (i.e., pond, forest, prairie) support the life of different types of plants and animals

- 4.1.D The diversity of species within an ecosystem is affected by changes in the environment, which can be caused by other organisms or outside processes**
- 4.1.D.a Identify examples in Missouri where human activity has had a beneficial or harmful effect on other organisms (e.g., feeding birds, littering vs. picking up trash, hunting/conservation of species, paving/restoring greenspace)
- 4.2 Matter and energy flow through an ecosystem**
- 4.2.A As energy flows through the ecosystem, all organisms capture a portion of that energy and transform it to a form they can use**
- 4.2.A.a Classify populations of organisms as producers, consumers, or decomposers by the role they serve in the ecosystem
- 4.2.A.b Differentiate between the three types of consumers (herbivore, carnivore, omnivore)
- 4.2.A.c Categorize organisms as predator or prey in a given ecosystem
- 4.3 Genetic variation sorted by the natural selection process explains evidence of biological evolution**
- 4.3.A Evidence for the nature and rates of evolution can be found in anatomical and molecular characteristics of organisms and in the fossil record**
- 4.3.A.a Compare and contrast common fossils found in Missouri (i.e., trilobites, ferns, crinoids, gastropods, bivalves, fish, mastodons) to organisms present on Earth today
- 4.3.C Natural selection is the process of sorting individuals based on their ability to survive and reproduce within their ecosystem**
- 4.3.C.a Identify specialized structures and describe how they help plants survive in their environment (e.g., root, cactus needles, thorns, winged seed, waxy leaves)
- 4.3.C.b Identify specialized structures and senses and describe how they help animals survive in their environment (e.g., antennae, body covering, teeth, beaks, whiskers, appendages)
- 4.3.C.c Recognize internal cues (e.g., hunger) and external cues (e.g., changes in the environment) that cause organisms to behave in certain ways (e.g., hunting, migration, hibernation)

4.3.C.d

Predict which plant or animal will be able to survive in a specific environment based on its special structures or behaviors

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.A

The Earth's crust is composed of various materials, including soil, minerals, and rocks, with characteristic properties

5.1.A.a

Identify and describe the components of soil (e.g., plant roots and debris, bacteria, fungi, worms, types of rock) and its properties (e.g., odor, color, resistance to erosion, texture, fertility, relative grain size, absorption rate)

5.1.A.b

Compare the physical properties (i.e., size, shape, color, texture, layering, presence of fossils) of rocks (mixtures of different Earth materials, each with observable physical properties)

5.2

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

5.2.A

The Earth's materials and surface features are changed through a variety of external processes

5.2.A.a

Observe and describe the breakdown of plant and animal material into soil through decomposition processes (i.e., decay, rotting, composting, digestion)

5.2.A.b

Identify the major landforms on Earth (i.e., mountains, plains, oceans, river valleys, coastlines, canyons)

5.2.A.c

Describe how weathering agents (e.g., water, chemicals, temperature, wind, plants) cause surface changes that create and/or change Earth's surface materials and/or landforms

5.2.A.d

Describe how erosional processes (i.e., action of gravity, waves, wind, rivers, glaciers) cause surface changes that create and/or change Earth's surface materials and/or landforms

5.3

Human activity is dependent upon and affects Earth's resources and systems

5.3.A

Earth's materials are limited natural resources affected by human activity

- 5.3.A.a Identify the ways humans affect the erosion and deposition of Earth's materials (e.g., clearing of land, planting vegetation, paving land, construction of new buildings)
- 5.3.A.b Propose ways to solve simple environmental problems (e.g., recycling, composting, ways to decrease soil erosion) that result from human activity

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 Formulate testable questions and explanations (hypotheses)
- 7.1.A.b Recognize the characteristics of a fair and unbiased test
- 7.1.A.c Conduct a 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., hand lenses, magnets, thermometers, metric rulers, balances, graduated cylinders, spring scale)
- 7.1.B.c Measure length to the nearest centimeter, mass using grams, temperature using degrees Celsius, volume to the nearest milliliter, weight to the nearest Newton
- 7.1.B.d Compare amounts/measurements
- 7.1.B.e Judge whether measurements and computation of quantities are reasonable
- 7.1.C Evidence is used to formulate explanations**

- 7.1.C.a Use quantitative and qualitative data as support for reasonable explanations
- 7.1.C.b Use data as support for observed patterns and relationships, 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 Evaluate the reasonableness of an explanation
- 7.1.D.b Analyze whether evidence supports proposed explanations
- 7.1.E The nature of science relies upon communication of results and justification of explanations**
- 7.1.E.a Communicate the procedures and results of investigations and explanations through:
- oral presentations
 - drawings and maps
 - data tables
 - graphs (bar, single line, pictograph)
 - writings

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

Design and construct an electrical device, using materials and/or existing objects, that can be used to perform a task (Assess Locally)

8.1.B

Advances in technology often result in improved data collection and an increase in scientific information

8.1.B.a

Describe how new technologies have helped scientists make better observations and measurements for investigations (e.g., telescopes, magnifiers, balances, microscopes, computers, stethoscopes, thermometers)

- 8.1.C** **Technological solutions to problems often have drawbacks as well as benefits**
- 8.1.C.a Identify how the effects of inventions or technological advances (e.g., different types of light bulbs, semiconductors/integrated circuits and electronics, satellite imagery, robotics, communication, transportation, generation of energy, renewable materials) may be helpful, harmful, or both (Assess Locally)
- 8.2** **Historical and cultural perspectives of scientific explanations help to improve understanding of the nature of science and how science knowledge and technology evolve over time**
- 8.2.A** **People of different gender and ethnicity have contributed to scientific discoveries and the invention of technological innovations**
- 8.2.A.a Research biographical information about various scientists and inventors from different gender and ethnic backgrounds, and describe how their work contributed to science and technology (Assess Locally)
- 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 people working alone or in groups 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)