TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
All About the Moon ISBN 0022859330 6 PK ISBN 002286654X	6.C.INQ.10	Z	730	***All About the Moon*** compares and contrasts Earth and the Moon, describes the history of the Moon landings, explains the motion of the Moon, and discusses the phases of the Moon.	**crater** **lunar** **mare** **orbit** **satellite**
Alloys ISBN 0022859381 6 PK ISBN 0022866574	6.1.C.1	Y	860	***Alloys*** describes historical uses of metals and alloys, such as bronze and iron. It also describes current applications of alloys and possible future uses of alloys.	**alloy** **bronze** **corrosion** **iron** **steel**
Amazing Water ISBN 0022859209 6 PK ISBN 0022866558	6.C.INQ.10, 6.1.C.2, 6.3.C.7, 6.4.C.10, 6.4.C.11	T	560	The unique properties of water, uses of water, the water cycle, water pollution, and the possibility of water on other planets are described in ***Amazing Water***.	**condense** **evaporate** **precipitation** **solvent** **surface tension**
Animal Migration ISBN 0022859179 6 PK ISBN 0022866426	6.C.INQ.10	S	670	***Animal Migration*** explores the migration patterns of whales, monarch butterflies, warblers, and sea turtles. The life cycle of the Monarch butterfly is diagrammed, and maps are used to illustrate migration routes.	**habitat** **metamorphosis** **migration** **plankton** **predator**
Antarctica: Land of Snow and Ice ISBN 0022847324 6 PK ISBN 0022865179	6.C.INQ.10, 6.2.C.4	V	900	In ***Antarctica: Land of Snow and Ice*****,** the terms *habitat*, *biome*, and *ecosystem* are defined. The climate and living things of Antarctica are described.	**biome** **ecosystem** **glacier** **habitat microhabitat**
Bacteria and Viruses ISBN 0022859292 6 PK ISBN 0022866442	6.C.INQ.10	Y	660	***Bacteria and Viruses*** begins with a discussion of early discoveries related to microscopes and microorganisms. Various types of bacteria are discussed and pictured. The role of bacteria in ecosystems and ways that bacteria impact humans are also discussed.	**antibiotic** **microscope** **pasteurization** **virus**

* - Also available in an English Language Learner version

TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Building a Biome * ISBN 0022847332 6 PK ISBN 0022865187	6.C.INQ.10, 6.2.C.4, 6.2.C.5	X	910	Construction of the deserts biome in the Indianapolis Zoo is described in ***Building a Biome*****.** Characteristics of desert biomes are described and career opportunities at zoos are identified.	**biome conservation ecosystem precipitation species**
Carbon ISBN 0022859217 6 PK ISBN 0022866582	6.C.INQ.10, 6.1.C.1, 6.1.C.2	S	600	***Carbon*** describes forms of carbon, uses of carbon, the role of carbon in living things, the carbon cycle, fossil fuels, and the greenhouse effect.	**Atom compound element organic compound respiration**
Changes at Earth's Surface ISBN 0022847421 6 PK ISBN 0022865276	6.C.INQ.10	V	880	***Changes at Earth's Surface*** describes physical and chemical weathering, erosion, deposition, and the changes that result from these processes.	**chemical weathering deposition erosion gravity physical weathering**
Chemical Changes * ISBN 0022859276 6 PK ISBN 0022866590	6.C.INQ.10, 6.1.C.1, 6.1.C.2	X	630	***Chemical Changes*** contains a description of the signs that indicate a chemical change has occurred, everyday applications of chemical changes, and chemical changes that occur in organisms.	**chemical change combustion compound element reaction**
Discovering the Secrets of Cells * ISBN 0022859233 6 PK ISBN 0022866469	6.C.INQ.10	X	720	***Discovering the Secrets of Cells*** explores careers in cell biology, the function of organelles, and tools such as computers that are used in cell research.	**Cell DNA gene neuron nucleus**
DNA Fingerprinting ISBN 0022859322 6 PK ISBN 0022866515	6.C.INQ.10	Y	720	***DNA Fingerprinting*** describes applications of DNA technology to solving crimes, tracing ancestry, solving historical mysteries, and tracking genetic diseases.	**Base DNA fingerprinting gene inherit mutation**

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TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Do Fossil Fuels Have a Future? * ISBN 0022847499 6 PK ISBN 0022865349	6.C.INQ.10, 6.4.C.11	X	900	***Do Fossil Fuels Have a Future?*** explains the formation of fossil fuels, methods of mining fossil fuels, consequences of the use of fossil fuels, and possible alternatives to fossil fuels.	**acid rain** **coal** **decompose** **fossil fuel** **petroleum**
Earth's Changing Climate * ISBN 002285925X 6 PK ISBN 0022866523	6.C.INQ.10, 6.3.C.8, 6.3.C.9	W	740	Climate, climate change, and the science of studying climates are discussed in ***Earth's Changing Climate***.	**climate** **climatologist** **core** **drought** **weather**
Ecosystems ISBN 0022847316 6 PK ISBN 0022865160	6.C.INQ.10, 6.2.C.4, 6.2.C.5, 6.2.C.6	Y	910	***Ecosystems*** discusses energy flow within ecosystems, human impact on ecosystems, and ways that individuals can have a positive impact on ecosystems.	**conservation** **consumer** **decomposer** **ecosystem** **producer**
Einstein, Newton, and Gravity ISBN 0022859489 6 PK ISBN 0022866639	6.C.INQ.10	X	760	***Einstein, Newton, and Gravity*** discusses the development of ideas about gravity and space-time, and highlights the cumulative nature of scientific knowledge.	**force** **gravity** **inertia** **mass** **theory**
Energy Hunter * ISBN 0022847367 6 PK ISBN 0022865225	6.C.INQ.10, 6.3.C.9, 6.4.C.11	X	810	***Energy Hunter*** identifies sources of energy including biomass, geothermal, solar, fossil fuels, and nuclear reactions.	**biomass** **geothermal energy** **nuclear fusion** **renewable** **solar energy**
Exploring the Ocean Depths * ISBN 0022859268 6 PK ISBN 0022866566	6.C.INQ.10	X	710	***Exploring the Ocean Depths*** describes how technology is used to advance science by allowing humans to explore the deepest parts of the ocean.	**adaptation** **bioluminescence** **geyser** **hydrothermal vent** **probe**

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TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Finding Our Way ISBN 0022859195 6 PK ISBN 0022866531	6.C.INQ.10	T	640	***Finding Our Way*** describes methods of navigation, longitude and latitude, historic navigation tools, and modern navigation tools such as GPS.	**astrolabe** **compass** **Global Positioning System (GPS)** **latitude** **longitude**
Fire in the Sierra Nevada ISBN 0022847340 6 PK ISBN 0022865195	6.C.INQ.10, 6.2.C.4	Y	840	***Fire in the Sierra Nevada*** describes the communities of living things found in the Sierra Nevada and the role that fire plays in keeping this ecosystem in balance.	**chaparral** **ecosystem** **habitat** **ignite** **vegetation**
Foods that Feed the World * ISBN 0022859225 6 PK ISBN 0022866434	6.C.INQ.10, 6.2.C.4	X	730	***Foods That Feed the World*** describes agriculture, food production, and ways that science has improved agricultural practices over time.	**agriculture** **fertilizer** **pesticide** **breeding** **staple**
Greenhouse Effect ISBN 0022847456 6 PK ISBN 0022865306	6.2.C.4	V	820	***Greenhouse Effect*** describes the role of the greenhouse effect in making Earth habitable and describes ways that human activity impacts the greenhouse effect, the ozone layer, and global climate.	**atmosphere** **carbon dioxide** **deforestation** **global warming** **greenhouse effect**
Gregor Mendel * ISBN 0022859241 6 PK ISBN 0022866493	6.C.INQ.6, 6.C.INQ.10	W	710	In ***Gregor Mendel*****,** the experimental methods used by Gregor Mendel are described. This book also describes how Mendel's results used ratios, discusses Mendel's laws, and identifies ways that Mendel's work impacted the work of other scientists.	**dominant** **genetics** **heredity** **hybrid** **recessive**
Hidden Life In A Pond ISBN 0022859314 6 PK ISBN 0022866477	6.C.INQ.10, 6.2.C.4, 6.2.C.6, 6.4.C.11	Y	720	***Hidden Life in a Pond*** identifies microorganisms found in pond water and explains the history of the microscope.	**algae** **bacteria** **food web** **habitat** **protozoa**

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TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
How Do Toys Work? * ISBN 0022859284 6 PK ISBN 0022866620	6.C.INQ.10	W	710	***How Do Toys Work?*** applies concepts of physics, such as motion, forces, friction, and momentum to toys such as yo-yos and model airplanes.	**energy** **force** **friction** **gravity** **momentum**
Microorganisms ISBN 0022859187 6 PK ISBN 0022866450	6.C.INQ.6, 6.C.INQ.10, 6.2.C.4	S	570	***Microorganisms*** identifies types of microorganisms, discusses the development of the microscope, and explains the role of microorganisms in disease and in food production.	**antibiotic** **bacteria** **microbe** **protist** **vaccine**
Microwaves and Cooking ISBN 0022847480 6 PK ISBN 0022865330	6.C.INQ.10	W	820	***Microwaves and Cooking*** describes the accidental discovery that microwaves cook food, development of the microwave oven over time, and the process of scientific invention.	**electron magnetron** **microwave** **nonionizing radiation** **patent**
Nuclear Medicine ISBN 0022859349 6 PK ISBN 0022866604	6.C.INQ.10	Y	750	***Nuclear Medicine*** describes the application of radioactive materials in medicine. The book describes X rays, bone scans, MRI, and radiation therapy.	**barium** **CT scan** **MRI** **nuclear medicine** **X ray**
Power for Our Future ISBN 0022847375 6 PK ISBN 0022865233	6.C.INQ.10, 6.1.C.1, 6.4.C.11	Y	940	***Power For Our Future*** describes the need for renewable energy resources such as solar energy, geothermal energy, fuel cells, and biomass fuels.	**geothermal energy** **hydrogen** **solar power** **renewable** **tidal energy**
Powered by the Sun ISBN 0022847472 6 PK ISBN 0022865322	6.C.INQ.10, 6.2.C.4	Y	890	***Powered By the Sun*** describes nuclear fusion in the Sun and the role of the Sun's energy in the water cycle and fossil fuel formation. It also describes ways that solar energy can be captured and used to make electricity, heat water, heat homes, and power spacecraft.	**array** **insulation** **nuclear fusion** **renewable resource** **solar energy**

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TITLE	CT STANDARDS ADDRESSED	GR LEVEL	LEXILE LEVEL	BOOK SUMMARY	VOCABULARY
Skates Bikes, and Rockets ISBN 0022859470 6 PK ISBN 0022866612	6.C.INQ.10	S	830	***Skates, Bikes, and Rockets*** describes how Newton's laws of motion are demonstrated by inline skates, ice skates, bicycles, and rockets.	**force** **friction gravity** **inertia** **newton**
Sun Storms * ISBN 0022847464 6 PK ISBN 0022865314	6.C.INQ.10	X	900	***Sun Storms*** describes solar events such as solar flares and sunspots and the way these events affect Earth. It also describes methods scientists use to study the Sun.	**corona** **magnetic field** **plasma solar flare** **sunspot**
The Ring of Fire ISBN 0022847413 6 PK ISBN 0022865268	6.C.INQ.10	Z	940	***The Ring of Fire*** describes the most severe earthquakes and volcanic events associated with the Ring of Fire. Tsunamis and tsunami warning systems are also discussed.	**aftershock** **earthquake seismic** **tsunami** **volcano**
The Story of DNA ISBN 0022859446 6 PK ISBN 0022866485	6.C.INQ.8, 6.C.INQ.10	S	840	***The Story of DNA*** highlights the discoveries of Watson and Crick, Mendel, Wilkins and Franklin, and Francis Collins. It discusses the role of DNA in the inheritance of traits and new developments in DNA technology.	**cell** **DNA** **gene genetics** **mutate**
Tracing the Food Web ISBN 0022847286 6 PK ISBN 0022865144	6.2.C.4, 6.2.C.5, 6.2.C.6	V	860	The flow of energy in a variety of ecosystems is described in ***Tracing the Food Web.*** Human impact on the world's ecosystems is also described.	**Consumer** **decomposer** **ecosystem** **food chain** **food web**
Tsunami! * ISBN 0022847391 6 PK ISBN 002286525X	6.C.INQ.10	X	880	***Tsunami!*** describes the formation and aftermath of the tsunami of December 26, 2004, as well as ways that tsunamis can be predicted and prepared for.	**geologist** **lithosphere** **meteorite** **Richter scale** **tectonic plate**

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Connecticut Core Science Curriculum Framework

STANDARD 6.C	**Core Scientific Inquiry, Literacy and Numeracy**
6.C.INQ.1	Identify questions that can be answered through scientific investigation.
6.C.INQ.2	Read, interpret and examine the credibility of scientific claims in different sources of information.
6.C.INQ.3	Design and conduct appropriate types of scientific investigations to answer different questions.
6.C.INQ.4	Identify independent and dependent variables, and those variables that are kept constant, when designing an experiment.
6.C.INQ.5	Use appropriate tools and techniques to make observations and gather data.
6.C.INQ.6	Use mathematical operations to analyze and interpret data.
6.C.INQ.7	Identify and present relationships between variables in appropriate graphs.
6.C.INQ.8	Draw conclusions and identify sources of error.
6.C.INQ.9	Provide explanations to investigated problems or questions.
6.C.INQ.10	Communicate about science in different formats, using relevant science vocabulary, supporting evidence and clear logic.

Core Themes, Content Standards and Expected Performances

STANDARD 6.1	**Materials can be classified as pure substances or mixtures, depending on their chemical and physical properties.**
6.1.C.1	Describe the properties of common elements, such as oxygen, hydrogen, carbon, iron and aluminum.
6.1.C.2	Describe how the properties of simple compounds, such as water and table salt, are different from the properties of the elements of which they are made.

6.1.C.3	Explain how mixtures can be separated by using the properties of the substances from which they are made, such as particle size, density, solubility and boiling point.
STANDARD 6.2	**An ecosystem is composed of all the populations that are living in a certain space and the physical factors with which they interact.**
6.2.C.4	Describe how abiotic factors, such as temperature, water and sunlight, affect the ability of plants to create their own food through photosynthesis.
6.2.C.5	Explain how populations are affected by predator-prey relationships.
6.2.C.6	Describe common food webs in different Connecticut ecosystems.
STANDARD 6.3	**Variations in the amount of the sun's energy hitting the Earth's surface affect daily and seasonal weather patterns.**
6.3.C.7	Describe the effect of heating on the movement of molecules in solids, liquids and gases.
6.3.C.8	Explain how local weather conditions are related to the temperature, pressure and water content of the atmosphere and the proximity to a large body of water.
6.3.C.9	Explain how the uneven heating of the Earth's surface causes winds.
STANDARD 6.4	**Water moving across and through earth materials carries with it the products of human activities.**
6.4.C.10	Explain the role of septic and sewage systems on the quality of surface and ground water.
6.4.C.11	Explain how human activity may impact water resources in Connecticut, such as ponds, rivers and the Long Island Sound ecosystem.