



INSPIRE CALIFORNIA SCIENCE

HIGH SCHOOL – BIOLOGY
CURRICULUM PACING GUIDE

Getting Started

- Students will need the McGraw- Hill Biology Textbook, a copy of the Science Notebook (available to complete online in each lesson, fillable pdf or printable pdf), a Science Journal (which is a composition or notebook to keep notes in) and a student login for online materials such as Labs and Assessments. Website <https://my.mheducation.com/login> Username: Student first name and ID number (i.e. Stella95834) Password: Sutterpeak1
- Module Assessments can be printed or assigned to take online. Please discuss with your teacher if you would like the assessments assigned to take online or emailed to you as a pdf to print.
- Students have the option of completing the course by using “Learnsmart/Smartbook” (your teacher can assign it to you per module) where you have access to all of the textbook material online and/or can answer all questions online (from the Science Notebook) as well as assessments, with immediate feedback.
- The textbook or pacing guide will indicate when you should access online materials (videos, CER charts, additional activities). You can access them by logging in, click on Lessons, click on “Launch the Presentation” and find the resource you need by clicking “Next Resource” at the bottom or click the three lines in the top left-hand corner of your course, select the module and lesson and then scroll down to the appropriate section (Engage, Explore and Explain, Elaborate or Evaluate) which you can find at the bottom of the page in your textbook.
- You have two options to complete the lab requirement for this class:
 - **Option 1:** Complete labs in this course. There are several labs available in each module. You will need to **complete a minimum of 1 lab per module** and turn in the lab sheets to your teacher. A material list for all of the labs can be obtained from your teacher. Your teacher will need to assign the labs to your student online account and it is suggested to look through the available labs for each module (online) ahead of time, choose which lab(s) you would like to complete, and obtain the materials you need. You can be reimbursed from your student budget for materials and borrow from the Lending Library when materials are available (i.e. microscope, etc.).
 - **Option 2:** Take a corresponding lab class through a community partner for the year. Please talk to your teacher and/or the school counselor for available options.

Module One: Introduction to Biology			
4 Days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: The Study of Life	<input type="checkbox"/> Textbook: Pages 3 <input type="checkbox"/> Science Notebook: Page 1	<input type="checkbox"/> Lab: Why is Observation Important? <input type="checkbox"/> Lab: What is Biology? <input type="checkbox"/> Lab: How Can You Keep Flowers Fresh?	Students will explore the characteristics of life.
Day 2 Lesson One: The Science of Life	<input type="checkbox"/> Textbook: Pages 4-10 <input type="checkbox"/> Science Notebook: Pages 2-5 <input type="checkbox"/> Lab: What is Biology? <input type="checkbox"/> Lab: How Can You Keep Flowers Fresh?		
Day 3 Lesson Two: The Nature of Science	<input type="checkbox"/> Textbook: Pages 11-17 <input type="checkbox"/> Science Notebook: Pages 6-10		
Day 4 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 18-19 <input type="checkbox"/> Module Assessment		
Unit 1: Ecology			
Module Two: Principles of Ecology			
8 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Principles of Ecology	<input type="checkbox"/> Textbook: Page 21 <input type="checkbox"/> Online: STEM Unit Project Planner- Rooftop Garden <input type="checkbox"/> Textbook: Pages 23 <input type="checkbox"/> Science Notebook: Page 11	<input type="checkbox"/> Lab: Problems in Drosophila World? <input type="checkbox"/> Virtual Lab: Model Ecosystems	Students will explore how abiotic and biotic limiting factors and range of tolerance affects the distribution of organisms.
Day 2-3 Lesson One: Organisms and Their Relationships	<input type="checkbox"/> Textbook: Pages 24-34 <input type="checkbox"/> Science Notebook: Pages 12-15		
Days 4-5 Lesson Two: Flow of Energy in an Ecosystem	<input type="checkbox"/> Textbook: Pages 35-38 <input type="checkbox"/> Science Notebook: Pages 16-19		Students will explore how matter moves through abiotic and biotic parts of an ecosystem.

Day 6-7 Lesson Three: Cycling of Matter	<input type="checkbox"/> Textbook: Pages 39-45 <input type="checkbox"/> Science Notebook: Pages 20-24		
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 46-47 <input type="checkbox"/> Module Assessment		
Module Three: Communities, Biomes, and Ecosystems 7 Days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Communities, Biomes, and Ecosystems	<input type="checkbox"/> Textbook: Page 49 <input type="checkbox"/> Science Notebook: Page 25	<input type="checkbox"/> Lab: How does your biome grow? <input type="checkbox"/> Lab: A Pond in a jar	Students will learn about community ecology and ecological succession.
Days 2 & 3 Lesson One: Community Ecology	<input type="checkbox"/> Textbook: Pages 50-53 <input type="checkbox"/> Science Notebook: Pages 26-28		Students will explore the major abiotic and biotic factors that determine the location of a terrestrial biome.
Days 4-5 Lesson Two: Terrestrial Biomes	<input type="checkbox"/> Textbook: Pages 54-62 <input type="checkbox"/> Science Notebook: Pages 29-32		
Day 6 Lesson Three: Aquatic Ecosystems	<input type="checkbox"/> Textbook: Pages 63-72 <input type="checkbox"/> Science Notebook: Pages 33-36 <input type="checkbox"/>		Students will explore the zones and characteristics of aquatic ecosystems.
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 73-74 <input type="checkbox"/> Module Assessment		
Module Four: Population Ecology 4 Days			
Days	Assignments	Labs	Focus
Day 1-2 Module Opener: Population Ecology Lesson One: Population Dynamics	<input type="checkbox"/> Textbook: Page 76 <input type="checkbox"/> Science Notebook: Page 37 <input type="checkbox"/> Textbook: Pages 77-85 <input type="checkbox"/> Science Notebook: Pages 38-41	<input type="checkbox"/> Lab: Do plants of the same species compete with one another? <input type="checkbox"/> Lab: How can you show a population trend?	Students will explore the characteristics of populations and how they are determined. Students will explore the factors affecting human population growth.
Day 3 Lesson Two: Human Population	<input type="checkbox"/> Textbook: Pages 86-93 <input type="checkbox"/> Science Notebook: Pages 42-46 <input type="checkbox"/>		
Day 4 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 94-95 <input type="checkbox"/> Module Assessment		

Module Five: Biodiversity and Conservation			
6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Biodiversity and Conservation	<input type="checkbox"/> Textbook: Pages 97 <input type="checkbox"/> Science Notebook: Page 47	<input type="checkbox"/> Lab: What lives here? <input type="checkbox"/> Lab: How do we measure biodiversity?	Students will explore the different types of biodiversity and why biodiversity is important.
Day 2 Lesson One: Biodiversity	<input type="checkbox"/> Textbook: Pages 98-104 <input type="checkbox"/> Science Notebook: Pages 48-51	<input type="checkbox"/> Lab: How can surveying a plot of land around your school help you understand the health of your ecosystem?	Students will explore the various threats to biodiversity and how the loss of a single species can impact an entire ecosystem.
Day 3 Lesson Two: Threats to Biodiversity	<input type="checkbox"/> Textbook: Pages 105-112 <input type="checkbox"/> Science Notebook: Pages 52-55		Students will explore the methods used to conserve and restore biodiversity.
Day 4-5 Lesson Three: Conserving Biodiversity	<input type="checkbox"/> Textbook: Pages 113-121 <input type="checkbox"/> Science Notebook: Pages 56-60		
Day 6 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 122-123 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Rooftop Garden		
Unit 2: The Cell			
Module Six: Chemistry in Biology			
6 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Chemistry in Biology	<input type="checkbox"/> Textbook: Page 125 <input type="checkbox"/> Online: STEM Unit Project planner on Algae Infestation Remediation <input type="checkbox"/> Textbook: Pages 127 <input type="checkbox"/> Science Notebook: Page 61	<input type="checkbox"/> Lab: How does the nutrient content of foods compare? <input type="checkbox"/> Lab: Investigate Enzymatic Browning <input type="checkbox"/> Lab: What substances or	Students will learn about atoms, the periodic table, and bonds. Students will explore the differences between a physical and chemical change.

Day 2 Lesson One: Matter	<input type="checkbox"/> Textbook: Pages 128-136 <input type="checkbox"/> Science Notebook: Pages 62-66 <input type="checkbox"/> Online Video: PHeT Build and Atom	<p>solutions act as buffers?</p> <input type="checkbox"/> Lab: Test for Simple Sugars	<p>Students will explore the structure of water, the differences between solutions and suspensions, and the differences between acids and bases.</p> <p>Students will explore the role of carbon in living organisms and the four major families of biological macromolecules.</p>
Day 3 Lesson Two: Chemical Reactions	<input type="checkbox"/> Textbook: Pages 137-143 <input type="checkbox"/> Science Notebook: Pages 67-70 <input type="checkbox"/> Online Video: PHeT Balancing Chemical Equations		
Day 4 Lesson Three: Water and It's Solutions	<input type="checkbox"/> Textbook: Pages 144-150 <input type="checkbox"/> Science Notebook: Pages 71-74 <input type="checkbox"/> Online Video: PHeT Atomic Interactions <input type="checkbox"/> Online Video: PHeT PH scale basics		
Day 5 Lesson Four: The Building Blocks of Life	<input type="checkbox"/> Textbook: Pages 151-158 <input type="checkbox"/> Science Notebook: Pages 75-78		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 159-160 <input type="checkbox"/> Module Assessment		
Module Seven: Cellular Structure and Function 8 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Water	<input type="checkbox"/> Textbook: Pages 162 <input type="checkbox"/> Science Notebook: Page 79	<input type="checkbox"/> Lab: What is a cell? <input type="checkbox"/> Lab: Discover Cells	Students will learn about the discoveries that contributed to the cell theory.
Day 2-3 Lesson One: Cell Discovery and Theory	<input type="checkbox"/> Textbook: Pages 163-168 <input type="checkbox"/> Science Notebook: Pages 80-83	<input type="checkbox"/> Lab: Which substances will pass through a selectively permeable membrane? <input type="checkbox"/> Lab: Investigate Osmosis	Students will explore the roles of the plasma membrane, proteins, carbohydrates, and cholesterol.
Day 4 Lesson Two: The Plasma Membrane	<input type="checkbox"/> Textbook: Pages 169-172 <input type="checkbox"/> Science Notebook: Pages 84-87		

Day 5 Lesson Three: Cellular Transport	<input type="checkbox"/> Textbook: Pages 173-180 <input type="checkbox"/> Science Notebook: Pages 88-91 <input type="checkbox"/> Online Video: PHeT Membrane Channels		<p>Students will explore the processes of passive and active transport.</p> <p>Students will explore the structures of a typical eukaryotic cell and what functions each structure serves.</p>
Day 6-7 Lesson Four: Structures and Organelles	<input type="checkbox"/> Textbook: Pages 181-193 <input type="checkbox"/> Science Notebook: Pages 92-96		
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 194-195 <input type="checkbox"/> Module Assessment		
Module Eight: Cellular Energy			
6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Cellular Energy	<input type="checkbox"/> Textbook: Pages 197 <input type="checkbox"/> Science Notebook: Page 97	<input type="checkbox"/> Lab: How is energy transformed?	<p>Students will explore how different organisms obtain and transform the energy they need to survive.</p> <p>Students will explore in depth the chemical reactions of photosynthesis.</p> <p>Students will explore how organisms break down organic molecules during cellular respiration.</p>
Day 2-3 Lesson One: How Organisms Obtain Energy	<input type="checkbox"/> Textbook: Pages 198-201 <input type="checkbox"/> Science Notebook: Pages 98-101	<input type="checkbox"/> Lab: Do different wavelengths of light affect the rate of photosynthesis?	
Day 4 Lesson Two: Photosynthesis	<input type="checkbox"/> Textbook: Pages 202-208 <input type="checkbox"/> Science Notebook: Pages 102-106	<input type="checkbox"/> Lab: Observe Chloroplasts	
Day 5 Lesson Three: Cellular Respiration	<input type="checkbox"/> Textbook: Pages 209-215 <input type="checkbox"/> Science Notebook: Pages 107-110	<input type="checkbox"/> Lab: Relate Photosynthesis to Cellular Respiration	
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 216-217 <input type="checkbox"/> Module Assessment		
Module Nine: Cellular Reproduction and Sexual Reproduction			
9 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Cellular Reproduction and Sexual Reproduction	<input type="checkbox"/> Textbook: Pages 219 <input type="checkbox"/> Science Notebook: Page 111	<input type="checkbox"/> Lab: From where do healthy cells come?	<p>Students will explore the various stages of the cell cycle.</p>

Days 2-5 Lesson One: The Causes of Weather	<input type="checkbox"/> Textbook: Pages 220-230 <input type="checkbox"/> Science Notebook: Pages 112-118	<input type="checkbox"/> Lab: Does sunlight affect mitosis in yeast? Why do cells divide?	Students will explore how meiosis differs from mitosis.
Days 6-8 Lesson Two: Weather Systems	<input type="checkbox"/> Textbook: Pages 231-245 <input type="checkbox"/> Science Notebook: Pages 119-124	<input type="checkbox"/> Lab: Investigate Cell Size	
Day 9 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 246-247 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Algae Infestation Remediation		

Unit 3: Genetics

Module Ten: Introduction to Genetics and Patterns of Inheritance
7 days

Days	Assignments	Labs	Focus
Day 1 Unit Opener Module Opener: Introduction to Genetics and Patterns of Inheritance	<input type="checkbox"/> Textbook: Page 249 <input type="checkbox"/> Online: Project Planner: STEM Unit Project: Genetically Engineered Corn <input type="checkbox"/> Textbook: Pages 251 <input type="checkbox"/> Science Notebook: Page 125	<input type="checkbox"/> Lab: What do you know about human inheritance? <input type="checkbox"/> Lab: How can phenotype of offspring help determine parent genotype?	<p>Students will learn about the significance of Mendel's experiments to the study of genetics.</p> <p>Students will explore meiosis and genetic recombination.</p>
Day 2 Lesson One: Mendelian Genetics	<input type="checkbox"/> Textbook: Pages 252-259 <input type="checkbox"/> Science Notebook: Pages 126-129	<input type="checkbox"/> Lab: Map Chromosomes <input type="checkbox"/> Lab: Model Hybridization	Students will explore the similarities and differences between inbreeding and hybridization.
Day 3 Lesson Two: Genetic Recombination and Gene Linkage	<input type="checkbox"/> Textbook: Pages 260-262 <input type="checkbox"/> Science Notebook: Pages 130-133	<input type="checkbox"/> Lab: Investigate Human Pedigrees	Students will explore human pedigrees, dominant and

Day 4 Lesson Three: Applied Genetics	<input type="checkbox"/> Textbook: Pages 263-265 <input type="checkbox"/> Science Notebook: Pages 134-138	<input type="checkbox"/> Lab: What's in a face? Investigate inherited human facial characteristics	recessive inheritance patterns, and disorders. Students will explore the differences between various complex inheritance patterns.
Day 5 Lesson Four: Basic Patterns of Human Inheritance	<input type="checkbox"/> Textbook: Pages 266-272 <input type="checkbox"/> Science Notebook: Pages 139-142		
Day 6 Lesson Five: Complex Patterns of Inheritance	<input type="checkbox"/> Textbook: Pages 273-283 <input type="checkbox"/> Science Notebook: Pages 143-146		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 284-285 <input type="checkbox"/> Module Assessment		
Module Eleven: Molecular Genetics			
8 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Molecular Genetics	<input type="checkbox"/> Textbook: Pages 287 <input type="checkbox"/> Science Notebook: Page 147	<input type="checkbox"/> Lab: Who discovered DNA?	Students will learn about the experiments that led to the discovery of DNA as the genetic material and the structure of DNA.
Days 2-3 Lesson One: DNA: The Genetic Material	<input type="checkbox"/> Textbook: Pages 288-295 <input type="checkbox"/> Science Notebook: Pages 148-152	<input type="checkbox"/> Lab: What is DNA? <input type="checkbox"/> Lab: Model DNA Structure	
Days 4-5 Lesson Two: Replication of DNA	<input type="checkbox"/> Textbook: Pages 295-298 <input type="checkbox"/> Science Notebook: Pages 153-157	<input type="checkbox"/> Lab: Forensics: How is DNA extracted?	Students will explore the roles of DNA helicase, DNA polymerase, and DNA ligase in the replication of DNA.
Day 6 Lesson Three: DNA, RNA, and Protein	<input type="checkbox"/> Textbook: Pages 299-305 <input type="checkbox"/> Science Notebook: Pages 158-161 <input type="checkbox"/> Online Video: PhET Simulation: Gene Expression- The Basics	<input type="checkbox"/> Lab: Model DNA Replication	Students will explore the roles of messenger RNA, ribosomal RNA, and transfer RNA in the transcription and translation of genes.
Days 7 Lesson Four: Gene Regulation and Mutation	<input type="checkbox"/> Textbook: Pages 306-315 <input type="checkbox"/> Science Notebook: Pages 162-166 <input type="checkbox"/> Online Video: PhET Simulation:		

	Investigating Genetic Variation		Students will explore how eukaryotic and prokaryotic cells regulate their genes.
Day 8 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 316-317 <input type="checkbox"/> Module Assessment		
Module Twelve: Biotechnology 4 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Biotechnology	<input type="checkbox"/> Textbook: Pages 319 <input type="checkbox"/> Science Notebook: Page 167	<input type="checkbox"/> Lab: Why does biotechnology cause ethical debates?	Students will explore the different tools and processes used in genetic engineering. Students will learn about the significance of the Human Genome Project.
Day 2 Lesson One: DNA Technology	<input type="checkbox"/> Textbook: Pages 320-328 <input type="checkbox"/> Science Notebook: Pages 168-172	<input type="checkbox"/> Lab: The Missing Restaurant Owner	
Day 3 Lesson Two: The Human Genome	<input type="checkbox"/> Textbook: Pages 329-339 <input type="checkbox"/> Science Notebook: Pages 173-178	<input type="checkbox"/> Lab: Model Restriction Enzymes	
Day 4 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 340-341 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Genetically Engineered Corn		
Unit 4: History of Biological Diversity			
Module Thirteen: The History of Life 4 days			
Days	Assignments	Labs	Focus
Day 1 Unit Opener	<input type="checkbox"/> Textbook: Page 343 <input type="checkbox"/> Online: Project Planner: STEM Unit Project: Electrophoresis Technology	<input type="checkbox"/> Lab: What can skeletal remains reveal? <input type="checkbox"/> Lab: Correlate Rock Layers Using Fossils	Students will learn about Earth's early environment and the different techniques for dating fossils. Students will learn about the endosymbiont theory
Module Opener: The History of Life	<input type="checkbox"/> Textbook: Pages 345 <input type="checkbox"/> Science Notebook: Page 179	<input type="checkbox"/> Lab: Is spontaneous generation possible?	

Day 2 Lesson One: Fossil Evidence of Change	<input type="checkbox"/> Textbook: Pages 346-356 <input type="checkbox"/> Science Notebook: Pages 180-185		and the theory of biogenesis.
Day 3 Lesson Two: The Origin of Life	<input type="checkbox"/> Textbook: Pages 357-363 <input type="checkbox"/> Science Notebook: Pages 186-190		
Day 9 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 364-365 <input type="checkbox"/> Module Assessment		
Module Fourteen: Evolution 7 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Evolution	<input type="checkbox"/> Textbook: Pages 367 <input type="checkbox"/> Science Notebook: Page 191	<input type="checkbox"/> Lab: How does selection work?	Students will explore the four principles of natural selection.
Day 2 Lesson One: Darwin's Theory of Evolution by Natural Selection	<input type="checkbox"/> Textbook: Pages 368-372 <input type="checkbox"/> Science Notebook: Pages 192-195	<input type="checkbox"/> Lab: Can Scientists model natural selection?	Students will learn about how fossils, morphology, and biochemistry provide evidence of evolution.
Day 3-4 Lesson Two: Evidence of Evolution	<input type="checkbox"/> Textbook: Pages 373-380 <input type="checkbox"/> Science Notebook: Pages 196-199	<input type="checkbox"/> Lab: Investigate Mimicry	Students will explore the factors that influence speciation and the Hardy-Weinberg principle.
Days 5-6 Lesson Three: Shaping Evolutionary Theory	<input type="checkbox"/> Textbook: Pages 381-392 <input type="checkbox"/> Science Notebook: Pages 200-204 <input type="checkbox"/> Online PhET Simulation: Natural Selection		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 393-394 <input type="checkbox"/> Module Assessment		
Module Fifteen: Primate Evolution 7 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Primate Evolution	<input type="checkbox"/> Textbook: Pages 396 <input type="checkbox"/> Science Notebook: Page 205	<input type="checkbox"/> Lab: What are the characteristics of primates?	Students will explore the characteristics of

Day 2 Lesson One: Primates	<input type="checkbox"/> Textbook: Pages 397-405 <input type="checkbox"/> Science Notebook: Pages 206-209	<input type="checkbox"/> Lab: Observe the Functions of an Opposable Thumb	various primate groups. Students will learn about the features of hominoids and hominins. Students will learn about the genus Homo and the Out-of-Africa hypothesis.
Day 3 Lesson Two: Hominoids to Hominins	<input type="checkbox"/> Textbook: Pages 406-412 <input type="checkbox"/> Science Notebook: Pages 210-213	<input type="checkbox"/> Lab: What can you learn about bipedalism from comparing bones?	
Days 4 Lesson Three: Human Ancestry	<input type="checkbox"/> Textbook: Pages 413-420 <input type="checkbox"/> Science Notebook: Pages 214-218	<input type="checkbox"/> Lab: Explore Hominin Migration	
Day 5 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 421-422 <input type="checkbox"/> Module Assessment		
Module Sixteen: Organizing Life's Diversity 7 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Organizing Life's Diversity	<input type="checkbox"/> Textbook: Pages 424 <input type="checkbox"/> Science Notebook: Page 219	<input type="checkbox"/> Lab: How can desert organisms be grouped?	Students will explore the categories used in biological classification and binomial nomenclature. Students will learn about the methods used to reveal phylogeny. Students will explore how species are classified into domains and kingdoms.
Day 2-3 Lesson One: The History of Classification	<input type="checkbox"/> Textbook: Pages 425-430 <input type="checkbox"/> Science Notebook: Pages 220-224	<input type="checkbox"/> Lab: How can organisms be grouped on a cladogram?	
Day 4 Lesson Two: Modern Classification	<input type="checkbox"/> Textbook: Pages 431-439 <input type="checkbox"/> Science Notebook: Pages 225-228	<input type="checkbox"/> Lab: Compare Bacteria	
Days 5-6 Lesson Three: Domains and Kingdoms	<input type="checkbox"/> Textbook: Pages 440-445 <input type="checkbox"/> Science Notebook: Pages 229-232		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 446-447 <input type="checkbox"/> Module Assessment		
STEM Unit Project	<input type="checkbox"/> Complete and present STEM unit project on Electrophoresis Technology		

Unit 5: Diversity of Life

Module Seventeen: Bacteria and Viruses

5 days

Days	Assignments	Labs	Focus
Day 1 Unit Opener	<input type="checkbox"/> Textbook: Page 449 <input type="checkbox"/> Online: Project Planner: STEM Unit Project- Biomimetics	<input type="checkbox"/> Lab: What are the differences between animal cells and bacterial cells?	Students will explore the major structures of bacteria and the differences among archaea, bacteria, and their subcategories. Students will learn about the general structures of viruses and prions.
Module Opener: Bacteria and Viruses	<input type="checkbox"/> Textbook: Pages 451 <input type="checkbox"/> Science Notebook: Page 233		
Days 2-3 Lesson One: Bacteria	<input type="checkbox"/> Textbook: Pages 452-460 <input type="checkbox"/> Science Notebook: Pages 234-237		
Days 4 Lesson Two: Viruses and Prions	<input type="checkbox"/> Textbook: Pages 461-468 <input type="checkbox"/> Science Notebook: Pages 238-242		
Day 5 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 469-470 <input type="checkbox"/> Module Assessment		

Module Eighteen: Protists and Fungi

6 days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Protists and Fungi	<input type="checkbox"/> Textbook: Pages 470 <input type="checkbox"/> Science Notebook: Page 243	<input type="checkbox"/> Lab: What is a protist?	Students will explore how protists are classified and the origin of protists. Students will learn about the characteristics of the different phyla of animal-like, plantlike and fungus-like protists.
Day 2 Lesson One: Introduction to Protists	<input type="checkbox"/> Textbook: Pages 471-476 <input type="checkbox"/> Science Notebook: Pages 244-247	<input type="checkbox"/> Lab: Do protists have good table manners?	
Day 3 Lesson Two: Protist Diversity	<input type="checkbox"/> Textbook: Pages 477-486 <input type="checkbox"/> Science Notebook: Pages 248-256	<input type="checkbox"/> Lab: Investigate Photosynthesis in Algae	

Day 4 Lesson Three: Introduction to Fungi	<input type="checkbox"/> Textbook: Pages 487-490 <input type="checkbox"/> Science Notebook: Pages 257-260	<input type="checkbox"/> Lab: How do environmental factors affect mold growth?	<p>Students will explore the major characteristics of organisms in the Kingdom Fungi.</p> <p>Students will explore distinguishing characteristics of the four major phyla of fungi.</p>
Day 5 Lesson Four: Fungus Diversity and Ecology	<input type="checkbox"/> Textbook: Pages 491-499 <input type="checkbox"/> Science Notebook: Pages 261-266	<input type="checkbox"/> Lab: Investigate Mold Growth	
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 500-501 <input type="checkbox"/> Module Assessment	<input type="checkbox"/> Lab: What are mushroom spores?	
Module Nineteen: Introduction to Plants 6 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Introduction to Plants	<input type="checkbox"/> Textbook: Pages 503 <input type="checkbox"/> Science Notebook: Page 267	<input type="checkbox"/> Lab: What characteristics differ among plants?	<p>Students will learn about the characteristics and adaptation of plants.</p> <p>Students will learn about the major types of plant cells and organs, plants tissues and their functions, and plant responses.</p> <p>Students will explore the similarities and differences among the reproduction of the different plant divisions.</p>
Day 2 Lesson One: Plant Evolution and Diversity	<input type="checkbox"/> Textbook: Pages 504-512 <input type="checkbox"/> Science Notebook: Pages 268-275	<input type="checkbox"/> Lab: Compare Plant Cuticles	
Day 3 Lesson Two: Plant Structure and Function	<input type="checkbox"/> Textbook: Pages 513-522 <input type="checkbox"/> Science Notebook: Pages 276-283	<input type="checkbox"/> Lab: Observe Plant Cells <input type="checkbox"/> Lab: Compare Flower Structures	
Day 4-5 Lesson Three: Plant Reproduction	<input type="checkbox"/> Textbook: Pages 523-532 <input type="checkbox"/> Science Notebook: Pages 284-288		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 533-534 <input type="checkbox"/> Module Assessment		
Module Twenty: Introduction to Animals 4 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Introduction to Animals	<input type="checkbox"/> Textbook: Pages 536 <input type="checkbox"/> Science Notebook: Page 289	<input type="checkbox"/> Lab: What is an animal? <input type="checkbox"/> Lab: What characteristics do animals have?	<p>Students will learn about adaptations that enable animals to live in different habitats.</p>

Day 2 Lesson One: Animal Characteristics	<input type="checkbox"/> Textbook: Pages 537-544 <input type="checkbox"/> Science Notebook: Pages 290-294	<input type="checkbox"/> Lab: Investigate Feeding in Animals <input type="checkbox"/> Lab: Is that symmetrical?	Students will learn about animal body plans and the distinguishable features of vertebrates.
Day 3 Lesson Two: Animal Diversity and Behavior	<input type="checkbox"/> Textbook: Pages 545-555 <input type="checkbox"/> Science Notebook: Pages 295-300	<input type="checkbox"/> Lab: Examine Body Plans	
Day 4 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 556-557 <input type="checkbox"/> Module Assessment		
Module Twenty-One: Animal Behavior and Diversity 5 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Animal Behavior and Diversity	<input type="checkbox"/> Textbook: Pages 559 <input type="checkbox"/> Science Notebook: Page 301	<input type="checkbox"/> Lab: How do scientists observe animal behavior in the field?	Students will explore the characteristics of invertebrates.
Day 2 Lesson One: Invertebrates	<input type="checkbox"/> Textbook: Pages 560-571 <input type="checkbox"/> Science Notebook: Pages 302-312	<input type="checkbox"/> Lab: How do we learn?	Students will explore the characteristics of vertebrates.
Day 3 Lesson Two: Vertebrates	<input type="checkbox"/> Textbook: Pages 572-582 <input type="checkbox"/> Science Notebook: Pages 313-321	<input type="checkbox"/> Lab: Explore Habituation	Students will learn about different types of animal behavior and communication.
Day 4 Lesson Three: Animal Behavior	<input type="checkbox"/> Textbook: Pages 583-584 <input type="checkbox"/> Science Notebook: Pages 322-328		
Day 5 Module Wrap-Up STEM Unit Project	<input type="checkbox"/> Textbook: Pages 602-603 <input type="checkbox"/> Module Assessment <input type="checkbox"/> Complete and present STEM unit project on Biomimetics		

Unit 6: The Human Body

Module Twenty-Two: Integumentary, Skeletal, and Muscular Systems
7 days

Days	Assignments	Labs	Focus
Day 1 Unit Opener	<input type="checkbox"/> Textbook: Page 595 <input type="checkbox"/> Online: Project Planner: STEM Unit Project on Artificial Heart Valve	<input type="checkbox"/> Lab: How is a chicken’s wing like your arm? <input type="checkbox"/> Lab: Examine Skin	Students will learn about the structures and functions of the integumentary system.
Module Opener: Integumentary, Skeletal, and Muscular Systems	<input type="checkbox"/> Textbook: Pages 597 <input type="checkbox"/> Science Notebook: Page 329	<input type="checkbox"/> Lab: Examine Bone Attachments	Students will learn about the structures and functions of the skeletal system.
Day 2 Lesson One: The Integumentary System	<input type="checkbox"/> Textbook: Pages 598-602 <input type="checkbox"/> Science Notebook: Pages 330-334	<input type="checkbox"/> Lab: How long can you last?	Students will learn about the structures and functions of the muscular system.
Day 3 Lesson Two: The Skeletal System	<input type="checkbox"/> Textbook: Pages 603-608 <input type="checkbox"/> Science Notebook: Pages 335-338		
Day 4-5 Lesson Three: The Muscular System	<input type="checkbox"/> Textbook: Pages 609-614 <input type="checkbox"/> Science Notebook: Pages 339-342 <input type="checkbox"/>		
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 615-616 <input type="checkbox"/> Module Assessment		

Module Twenty-Three: Nervous System
7 days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Nervous System	<input type="checkbox"/> Textbook: Pages 618 <input type="checkbox"/> Science Notebook: Page 343	<input type="checkbox"/> Lab: How does information travel in the nervous system?	Students will explore the major parts of the neuron and the function of each part.
Days 2-3 Lesson One: Structure of the Nervous System	<input type="checkbox"/> Textbook: Pages 619-624 <input type="checkbox"/> Science Notebook: Pages 344-347	<input type="checkbox"/> Lab: Investigate the Blink Reflex	Students will explore the similarities and

Day 4 Lesson Two: Organization of the Nervous System	<input type="checkbox"/> Textbook: Pages 625-630 <input type="checkbox"/> Science Notebook: Pages 348-351	<input type="checkbox"/> Lab: How do neural pathways develop and become more efficient? <input type="checkbox"/> Lab: Investigate Adaptations to Darkness	differences between the somatic nervous system and the autonomic nervous system. Students will explore the different sensory organs and be able to describe what each of them are able to detect. Students will learn about the four ways drugs can affect the nervous system.
Day 5 Lesson Three: The Senses	<input type="checkbox"/> Textbook: Pages 631-634 <input type="checkbox"/> Science Notebook: Pages 352-355		
Day 6 Lesson Four: Effects of Drugs	<input type="checkbox"/> Textbook: Pages 635-640 <input type="checkbox"/> Science Notebook: Pages 356-360		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 641-642 <input type="checkbox"/> Module Assessment		
Module Twenty-Four: Circulatory, Respiratory, and Excretory Systems			
5 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: Circulatory, Respiratory, and Excretory Systems	<input type="checkbox"/> Textbook: Pages 644 <input type="checkbox"/> Science Notebook: Page 361	<input type="checkbox"/> Lab: What changes take place in the body during exercise?	Students will learn about the main functions of the circulatory system.
Day 2 Lesson One: Circulatory System	<input type="checkbox"/> Textbook: Pages 645-654 <input type="checkbox"/> Science Notebook: Pages 362-366	<input type="checkbox"/> Lab: Investigate Blood Pressure <input type="checkbox"/> Lab: Recognize Cause and Effect	Students will learn about what changes occur in the body during respiration. Students will learn about the function of the kidney in the body.
Day 3 Lesson Two: Respiratory System	<input type="checkbox"/> Textbook: Pages 655-659 <input type="checkbox"/> Science Notebook: Pages 367-371	<input type="checkbox"/> Lab: Internet- Make Positive Health Choices	
Day 4 Lesson Three: The Excretory System	<input type="checkbox"/> Textbook: Pages 660-665 <input type="checkbox"/> Science Notebook: Pages 372-376		
Day 5 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 666-667 <input type="checkbox"/> Module Assessment		

Module Twenty-Five: Digestive and Endocrine Systems

5 days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Digestive and Endocrine Systems	<input type="checkbox"/> Textbook: Pages 669 <input type="checkbox"/> Science Notebook: Page 377	<input type="checkbox"/> Lab: How does the enzyme pepsin aid digestion?	<p>Students will learn about the three main functions of the digestive system.</p> <p>Students will explore the purposes of proteins, carbohydrates, fats, vitamins, and minerals in the body.</p> <p>Students will learn about the feedback mechanisms that regulate hormone levels in the body.</p>
Day 2 Lesson One: The Digestive System	<input type="checkbox"/> Textbook: Pages 670-674 <input type="checkbox"/> Science Notebook: Pages 378-382	<input type="checkbox"/> Lab: Investigate Digestion of Lipids <input type="checkbox"/> Lab: Model the Endocrine System	
Day 3 Lesson Two: Nutrition	<input type="checkbox"/> Textbook: Pages 675-680 <input type="checkbox"/> Science Notebook: Pages 383-386 <input type="checkbox"/> Online: PhET Simulation: Eating and Exercise		
Day 4 Lesson Three: The Endocrine System	<input type="checkbox"/> Textbook: Pages 681-688 <input type="checkbox"/> Science Notebook: Pages 387-390		
Day 5 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 689-690 <input type="checkbox"/> Module Assessment		

Module Twenty-Six: Human Reproduction and Development

6 Days

Days	Assignments	Labs	Focus
Day 1 Module Opener: Human Reproduction and Development	<input type="checkbox"/> Textbook: Pages 692 <input type="checkbox"/> Science Notebook: Page 391	<input type="checkbox"/> Lab: Sex Cell Characteristics <input type="checkbox"/> Lab: Model Sex Cell Production	<p>Students will learn about the structures and functions of the male and female reproductive systems.</p> <p>Students will learn about the major changes that occur during each trimester of development.</p>
Day 2 Lesson One: Reproductive Systems	<input type="checkbox"/> Textbook: Pages 693-698 <input type="checkbox"/> Science Notebook: Pages 392-395	<input type="checkbox"/> Lab: Internet- How are ultrasound images used to track fetal development?	
Day 3 Lesson Two: Human Development Before Birth	<input type="checkbox"/> Textbook: Pages 699-706 <input type="checkbox"/> Science Notebook: Pages 396-399		

Day 4-5 Lesson Three: Birth, Growth and Aging	<input type="checkbox"/> Textbook: Pages 707-711 <input type="checkbox"/> Science Notebook: Pages 400-404	<input type="checkbox"/> Lab: Sequence Early Human Development	Students will learn about the three stages of birth and the major life stages after birth.
Day 6 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 712-713 <input type="checkbox"/> Module Assessment		
Module Twenty-Seven: The Immune System			
7 days			
Days	Assignments	Labs	Focus
Day 1 Module Opener: The Immune System	<input type="checkbox"/> Textbook: Pages 715 <input type="checkbox"/> Science Notebook: Page 405	<input type="checkbox"/> Lab: How do you track a cold? <input type="checkbox"/> Lab: Evaluate the spread of pathogens <input type="checkbox"/> Lab: Compare Cancerous and Healthy Cells	Students will explore Koch's postulates and the transfer of disease.
Days 2-3 Lesson One: Infectious Diseases	<input type="checkbox"/> Textbook: Pages 716-724 <input type="checkbox"/> Science Notebook: Pages 406-410		
Day 4 Lesson Two: The Immune System	<input type="checkbox"/> Textbook: Pages 725-733 <input type="checkbox"/> Science Notebook: Pages 411-415		Students will learn about the five categories of noninfectious diseases.
Day 5-6 Lesson Three: Noninfectious Disorders	<input type="checkbox"/> Textbook: Pages 734-738 <input type="checkbox"/> Science Notebook: Pages 416-423		
Day 7 Module Wrap-Up	<input type="checkbox"/> Textbook: Pages 739-740 <input type="checkbox"/> Module Assessment		
STEM Unit Project	<input type="checkbox"/> Complete and present STEM unit project on Artificial Heart Valves		