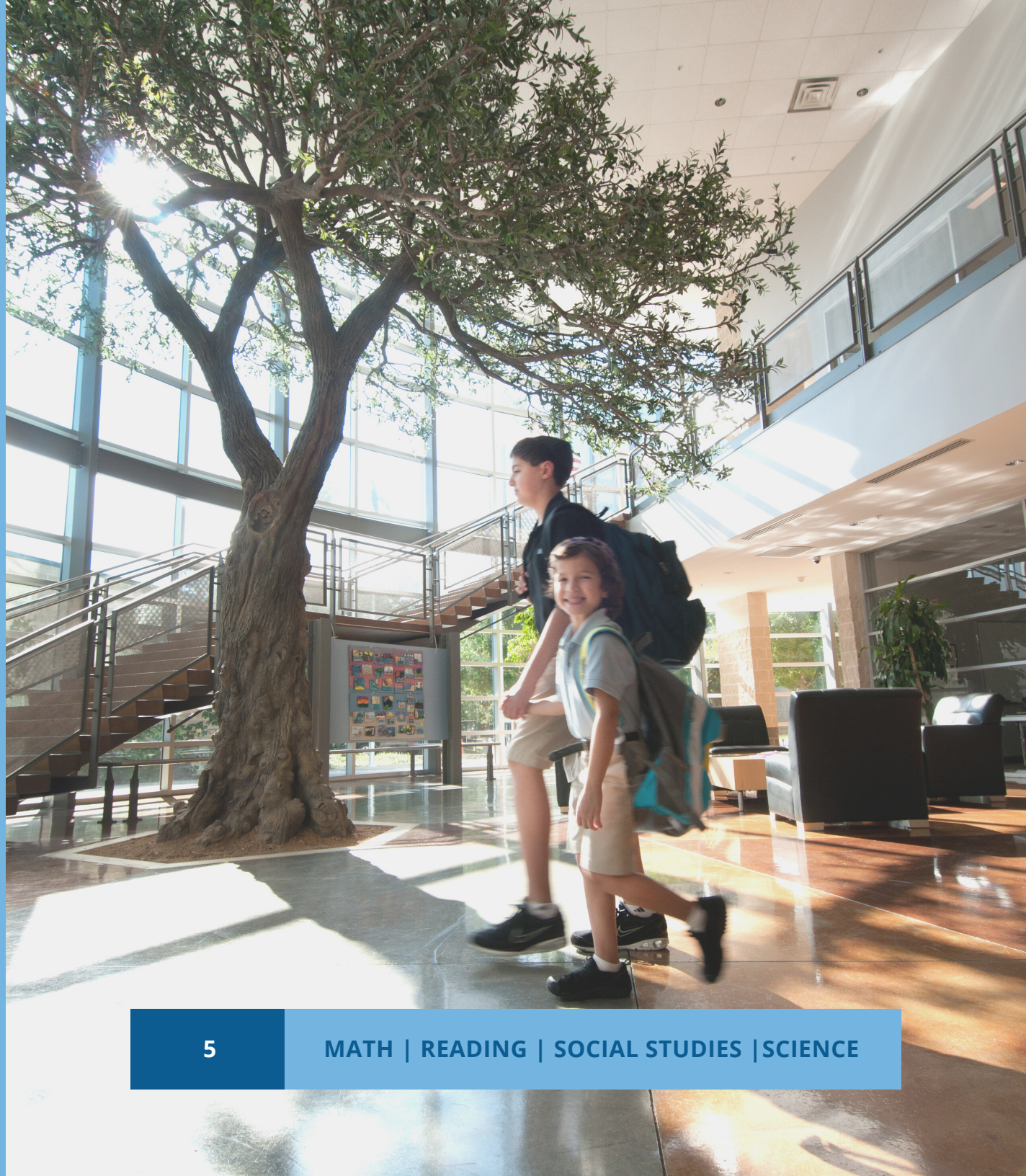
WHAT YOUR CHILD WILL LEARN IN 5TH GRADE

Akiba Yavneh Academy

בית ספר עקיבא יבנה



5

MATH | READING | SOCIAL STUDIES |SCIENCE

Math

Operations and Algebra	Numbers and Computation	Measurement and Data	Geometry
What Your Child Will Learn			
• **Algebra: Analyze Patterns and Relationships**	• **Understand Place Value** • **Add and Subtract Decimals** • **Multiply Multi-Digit Whole Numbers** • **Multiply and Divide Decimals** • **Use Equivalent Fractions to Add and Subtract Fractions** • **Multiply and Divide Fractions**	• **Understand Volume Concepts** • **Convert Measurements** • **Write and Interpret Numerical Expressions** • **Represent and interpret Data**	• **Graph Points on the Coordinate Plane** • **Geometric Measurement: Classify Two-Dimensional Figures**
What Your Child Will Do			
• Students generate and analyze numerical patterns. • They identify a relationship between two patterns and graph the relationship on a coordinate plane.	• Students expand their understanding of the place value system for whole numbers and decimals. • They read, write, and compare decimals to thousandths. • Students extend their understanding of multi-digit multiplication and division with whole numbers. They develop an understanding of operations with decimals. • Students use equivalent fractions as a strategy to add and subtract fractions with unlike denominators. • Students extend their understanding of multiplication with fractions. They are introduced to division of fractions by dividing with unit factions. • Students represent and interpret data on a line plot, with an emphasis on data involving fractions. They apply their understanding of line plots and operations with fractions to solve problems.	• Students explore concepts of volume measurement for rectangular prisms and some composite solid figures. They relate volume to multiplication and addition. • Students convert measurements within a measurement system and solve problems using measurement conversions. • Students use the Order of Operations to evaluate, write, and interpret numerical expressions with grouping symbols.	• Students develop an understanding of the coordinate system. They graph ordered pairs in the first quadrant of the coordinate plane to solve problems. • Students classify triangles and quadrilaterals by their properties. They learn that the properties of a two-dimensional shape also belong to all subcategories of that shape.

Math

What You Will See

Operations and Algebra

- Use parentheses, brackets, or braces in numerical expressions
- Evaluate numerical expressions with parentheses, brackets, or braces
- Write numerical expressions that record calculations
- Interpret numerical expressions.
- Generate two numerical patterns using two given rules
- Identify relationships between corresponding terms in two numerical patterns
- Form ordered pairs from two numerical patterns
- Graph ordered pairs generated by two patterns

Numbers and Computation

- Understand how the value of a digit in one place compares to the value in the place to its right or left
- Use exponents to denote powers of 10
- Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10
- Read and write decimals to thousandths
- Compare, read and write decimals to thousandths using base-ten numerals and number names
- Use expanded form for decimals
- Compare decimals to thousandths using the symbols >, =, and <
- Round decimals to any place
- Divide up to four-digit dividends by two-digit divisors
- Model division of up to four-digit dividends by two-digit divisors.
- Add and subtract decimals to hundredths
- Multiply and divide decimals to hundredths
- Add and subtract fractions with unlike denominators
- Add and subtract mixed numbers with unlike denominators
- Solve word problems involving addition and subtraction of fractions
- Solve word problems involving division of whole numbers with answers that are fractions or mixed numbers
- Multiply a whole number by a fraction
- Multiply a fraction by a fraction
- Relate multiplication of fractions and the area of a rectangle with fractional side lengths
- Explain the effect of multiplying a given number by a fraction greater than 1, less than 1, or equal to 1
- Solve real-world problems involving multiplication of fractions and multiplication of mixed numbers
- Divide whole numbers and unit fractions
- Solve real-world problems involving division of fractions and whole numbers

Measurement and Data

- Convert measurement units
- Use conversions to solve real-world problems
- Recognize volume as an attribute of solid figures
- Understand concepts of volume measurement
- Understand the concept of cubic unit
- Relate n unit cubes to a volume of n cubic units
- Measure volumes by counting in cubic inches and feet
- Measure volumes by counting unit cubes in improvised units
- Relate volume to the operations of multiplication and addition
- Solve real-world and mathematical problems involving volume
- Show that the volume of a right rectangular prism can be found by multiplying the edge lengths
- Show that the volume of a right rectangular prism can be found by multiplying the height by the area of the base
- Represent threefold whole-number products as volumes
- Use the formulas $V = \ell \times w \times h$ and $V = b \times h$ for rectangular prisms
- Find volumes of solid figures composed of two

Geometry

- Solve problems involving fraction operations by using measurement data in line plots
- Make a line plot to display a data set of measurements in fractions of a unit
- Understand a coordinate system
- Graph points in the first quadrant of the coordinate plane
- Interpret coordinate values of points in the first quadrant of the coordinate plane
- Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category
- Classify two-dimensional figures in a hierarchy based on properties
- Use a Venn diagram to organize two-dimensional figures based on the attributes of the figures

Reading/Writing - Being a Writer - Making Meaning

Reading Comprehension	Vocabulary/Spelling	Writing Craft	Language Skills and Conventions

What Your Child Will Learn

Reading Comprehension	Vocabulary/Spelling	Writing Craft	Language Skills and Conventions
• **The Reading Community** • **Using Text Features** • **Questioning** • **Analyzing Text Structure** • **Making Inferences** • **Determining Important Ideas and Summarizing** • **Synthesizing**	• **Context to determine word meanings** • **Use Dictionary, glossary, or thesaurus** • **Words with multiple meanings** • **Word parts used for understanding**	• **The Writing Community** • **The Writing Process** • **Personal Narrative** • **Fiction Expository** • **Nonfiction Functional Writing** • **Opinion Writing** • **Poetry**	• **Proofread and edit for conventions (e.g., grammar, usage, punctuation)** • **Proofread and edit for spelling** • **Citations**

What Your Child Will Do

Reading Comprehension	Vocabulary/Spelling	Writing Craft	Language Skills and Conventions
• Use text features to find and understand information • Use questioning to think about expository texts • Use schema to think about all they know about a topic • Explore narrative text structure through discussions of plot, setting, character, conflict, and theme • Use questioning to think about narrative text • Make inferences and visualize to understand narrative text and poetry • Use a double-entry journal • Make inferences to understand narrative and expository texts • Make inferences to explore causal relationships in narrative and expository texts • Analyze expository text structure • Explore ways in which articles and functional texts are organized • Explore the use of cause and effect, chronological, and compare and contrast relationships in textbooks • Distinguish between important and supporting ideas in texts • Use important ideas to summarize • Synthesize by forming opinions and making judgments about texts	• Learn strategies for unlocking word meanings when they read independently • Use context clues to understand the meaning of a word • Recognizing synonyms and antonyms • Recognizing words with multiple meanings • Using Greek and Latin roots to determine word meanings • Segmenting and spelling by sounds • Recognizing patterns within words • Adding Inflection • Spelling by syllables • Adding prefixes and suffixes • Applying morphemic spelling knowledge	• Using sensory details • Writing engaging openings • Adding information about learning or change • Writing endings that draw a story's events to a close • Doing pre-research writing and narrowing research focus • Identifying effective keywords for an Internet search • Taking notes and organizing information by subtopic • Employing facts and examples related to the topic • Using transitional words and phrases • Creating text features • Writing interesting introductions • Writing author biography sections and bibliographies	• Use a series of commas to make the directions easier to follow • Identify complete sentences and compound sentences • Identify dependent and independent clauses • Combine sentences • Find fragments and run-on sentences • Use nouns and possessive nouns • Use subject and object pronouns • Use possessive pronouns • Explore noun-pronoun agreement • Explore verbs • Explore perfect verb tense • Explore progressive verb tense • Explore shifts in verb tense • Use subject-verb agreement • Explore adjectives • Explore adverbs • Use prepositions and prepositional phrases • Explore correlative conjunctions

Reading/Writing - Making Meaning - Being a Writer

Comprehension	Vocabulary/Spelling	Writing Craft	Language Skills and Conventions

What You Will See

Comprehension	Vocabulary/Spelling	Writing Craft	Language Skills and Conventions
• The students learn to connect what they know from their own experiences to texts before, during, and after a read-aloud. They also make connections between texts. • The students visualize to make sense of figurative language and deepen their understanding and enjoyment of poems and stories. • The students wonder and ask questions before, during, and after a read-aloud to make sense of a text. • The students identify features of expository texts and use those features to help them understand the texts. • The students identify features of expository texts and use those features to help them understand the texts. • The students explore which ideas in texts are important and support their thinking with evidence from the texts. • The students use story elements to help them think about stories. • The students identify important ideas and use those ideas to develop oral and written summaries. • The students synthesize to form opinions and make judgments about texts.	• Take weekly spelling or vocabulary tests • Using the prefixes dis- pre- - un and -inter to determine word meanings • Using the suffixes -er, -ous, -ly, less, -ful, -tion, and -ment to determine word meanings • Using context to determine word meanings • Recognizing shades of meaning • Recognizing idioms • Recognizing adages • Using a print and online dictionaries to determine word meanings • Using a print and online thesaurus to determine word meanings • Using a glossary to determine word meanings • Build their speaking and listening skills • Recognize proverbs	• Draft many pieces in a variety of genres • Select a draft to develop and publish • Revise drafts Proofread for spelling and conventions • Write final versions and publish • Write about significant experiences that resulted in learning or change • Use sensory details • Proofread for consistent verb tense • Explore strong opening sentences and endings that draw a story's events to a close. • Develop interesting plots that make sense • Informally explore conflict in plot • Use descriptive, sensory details to convey character and setting • Develop character through dialogue • Explore verb tenses and first- and third-person points of view and apply them consistently • With a partner, research and write about a nonfiction topic of interest • Take research notes and organize them by topic	• Identifying and correcting commonly misused words (there/their/they're) • Maintaining consistency in verb tenses • Recognizing and correcting sentence fragments • Recognizing and correcting run-on sentences • Proofreading for spelling, punctuation, and grammar • Citing resources • Recognizing and correcting sentence fragments • Placing commas after introductory words, phrases, and clauses • Using prepositions and prepositional phrases • Exploring first- and third-person points of view • Punctuating speech • Formatting and punctuating the parts of informal and formal letters • Using correlative conjunctions, such as either/or and both/and • Revisions that make sense and improve their writing • Descriptive sensory details and consistent verb tense throughout the piece • Assess their own writing • Proofread their writing • Use either/or or and/bo

Social Studies

History	Geography	Civics	Economics
What Your Child Will Learn			
• **The Lands and Native Peoples of North America** • **The Age of Exploration** • **A changing Continent** • **The Road to War** • **The American Revolution** • **A Growing Nation** • **The Civil War and Reconstruction**	• **The Lands and Native Peoples of North America** • **The Age of Exploration** • **A changing Continent** • **The Road to War** • **The American Revolution** • **A Growing Nation**	• **The Lands and Native Peoples of North America** • **The Age of Exploration** • **A changing Continent** • **The Road to War** • **The American Revolution** • **Forming a New Government** • **A Growing Nation** • **The Civil War and Reconstruction**	• **The Lands and Native Peoples of North America** • **The Age of Exploration** • **A changing Continent** • **The Road to War** • **The American Revolution** • **A Growing Nation** • **The Civil War and Reconstruction**
What Your Child Will Do			
• How did the characteristics of early Native American groups develop? • Why did the Spanish explore the Americas? • How did the early English settlers cooperate and clash with Native Americans? • What caused the conflict between Great Britain, France, and Native Americans? • What increased tensions between Great Britain and the Colonists? • How did the American revolution start? • What were the defining moments of the war? • Who were the people living in the early United States? • What was it like to live during the Civil War? • What conflicts and compromises shaped the north and south? • How did key moments lead to the end of the Cival War?	• How were native peoples of the Pacific Coast shaped by their surroundings? • How did the Eastern woodlands impact the lives of early people? • How did European exploration affect the Americas? • How did the great plains influence the traditions of the people living there? • How did early European settlers compete with one another and Native Americans? • What was it like to live during the Revolution? • How did westward expansion impact people living in the United States?	• How did Spanish exploration change the lives of the people in the Americas? • What was life like for people in New England? • What shaped life in the middle colonies? • What were the views of the Patriots, the Loyalists, and the British? • Why is the Declaration of Independence still important today? • What was the articles of Confederation and why did it fail? • How does the Constitution set up our Government framework? • How does the Constitution and the Bill of Rights impact citizens? • How did early decisions shape the nation? • What tensions about slavery caused the Civil War? • How did each side plan on winning the Civil War?	• How did the people of the desert southwest meet their needs? • How did Economics impact people in the southern colonies? • What did the Colonist gain by winning the war? • How did advancements in technology and transportation shape the nation? • What challenges did the United States face after the Cival War?

Social Studies

History	Geography	Civics	Economics

What You Will See

History	Geography	Civics	Economics
• Can explain the history behind the Spanish exploration of America • Evaluate whether the Spanish exploration had a mostly positive or mostly negative effect on the America's • Write and illustrate a short narrative the relations between a specific group of European settlers and the Native Americans they encountered • A short essay from the view of a Patriot, Loyalist, African American, or Native American outlining his or her reasons for not wanting a war with Britain • A time line that will focus on a person, idea or event the had an impact during the American Revolution and show how our country would be different today • A museum gallery that depicts the United States in it's early years then explain how the painting works together to tell a story about the character and spirit of the United States	• Create a poster or diorama describing the Native people's daily life including how they obtained water, food, tools, clothing, and shelter • Design a trading card of a Spanish explorer that depicts facts and explains their impact on the lives of the Native American's • The short essay will identify the effects of their relationship on the Native American's way of life as well as the benefits or setbacks the Europeans experienced • A time line that will focus on a person, idea or event the had an impact during the American Revolution and show how our country would be different today	• Create a poster or diorama describing the Native people's religious and/or cultural traditions and government. • The story will identify the effects of their relationship on the Native American's way of life as well as the benefits or setbacks the Europeans experienced. • A time line that will focus on a person, idea or event the had an impact during the American Revolution and show how our country would be different today • A new amendment to the Constitution that has a good case for and against it • A news show about the Civil War and reconstruction including fictional interviews with people that lived during these times	• Create a poster or diorama describing the Native people's Economy • Write and illustrate a short narrative that includes the economic impact for the people in the southern colonies • A short essay from the view of a Patriot, Loyalist, African American, or Native American outlining his or her reasons for not wanting a war with Britain. • A time line that will focus on a person, idea or event the had an impact during the American Revolution and show how our country would be different today

Science

Scientific Process Skills	Systems and Subsystems in Life Science	Models, Patterns, and Properties	Causes and Effects

What Your Child Will Learn

• **Scientists help us understand the world around us.** • **Scientists do experiments and make observations.** • **They use evidence to support their ideas.**	• **The human body is made up of multiple interacting systems: Circulatory, Digestive, Respiratory and Muscular systems.**	• **Earth's water cycle** • **Earth's rotation and orbit's** • **Stars** • **Earth's sphere's: Geosphere, Hydrosphere, Atmosphere and Biosphere** • **Earth's water supply**	• **Chemical Changes** • **Matter as a substance with particles.** • **Matter has properties: Magnetism, Density and Solubility** • **Food Webs** • **Food as Energy**

What Your Child Will Do

• Students will observe and conduct investigations. • Students will discover and record data. • Learn lab safety procedures • Learn how to use technology and science equipment • Verbalize science inquires and conclusions	• Develop a model to explain how a human body system functions • Use evidence to explain how the human body system works • Obtain information from media sources to explain how human body systems function individually and together	• Students create, observe, record and analyze findings and explanations in a water cycle modeling activity. • Students create a pictograph or chart revealing patterns in the relationship between the stars visible in the night sky and the time of year indicative of a relationship between the motion of the Earth and the Sun (extension). • Students build and use planispheres to synthesized understanding related to distances of stars and orbit Students explore various materials to be able to describe and define each sphere. • Students think about different ways two or more spheres interact through Earth's systems and processes. • Students think about the humans in the biosphere and how our actions impact all of Earth's spheres. • Students focus on recycling as a method for reducing human impact on Earth's spheres. • Describe how the distribution of water throughout Earth impacts human consumption and water quality.	• Chemical and physical reactions • Observe and compare relative hardness, density, solubility and other properties of various materials • Food chains • Conservation of matter • Matter • Photosynthesis • Nutrients from food as a source of energy to survive • Observing materials in solid, liquid and gaseous forms

Science

Scientific Process Skills	Systems and Subsystems in Life Science	Models, Patterns, and Properties	Causes and Effects

What You Will See

• Chart of Safety Rules and Symbols • Will make Graphic Organizers • Develop graphs, tables, and charts of data Keep a science folder or journal	• Explain how multiple body systems interact with each other to help keep the body functioning.	• Identify processes in the water cycle. • Create water cycle models • Students explore patterns related to night and day, apparent motion of the sun, shadow lengths, changing visible stars and constellations, Foucault's pendulum, calendars and time zones. • Students recognize the immense size of stars and distances in the universe and attempt to comprehend these relatively and concretely. • Students develop simple models (labeled sketches) in which they identify all components involved in interactions between two or more of Earth's spheres. • Describe the different causes of poor water quality and its effect on the environment, particularly involving living things that depend on water for survival.	• Students use new knowledge to think about how they would investigate a reaction to determine if it causes a chemical or physical change. • Use standard units of measure to make slime • Students recognize that energy is transferred through ecosystems and between plants and animals as food and through decomposition. • Students observe the interactions between the components of an ecosystem. • Students use standard units when working with weights. • Students measure physical quantities while following directions to complete an investigation. • Students observe multiple scenarios in which the conservation of matter is consistent. • Explain how energy is transferred from the Sun to a plant, or from one organism to another as a food source. • Students use the properties of matter as evidence for small particles that make up the materials around us.