

6th

2019-2020



Thematic Scope and Sequence
English Pathway



6th

2019-2020

Challenge 1

Thematic Scope and Sequence
English Pathway





Health and Well-Being

Sixth Grade

Magnetik® Understanding:

Adolescent behavior may be influenced by peer pressure, a hormonal disorder, and insecurity.

Magnetik® Question:

How do relationships change during adolescence?

Global Issue:

Risks during adolescence

Challenge-Action Question:

How do I manage risks during my adolescence?



Knotion® supports the Sustainable Development Goals





Life Science

Knotion® Subject	Topic	Learning Outcome	Content
<p>Life Science</p>	<ul style="list-style-type: none"> Health 	<ul style="list-style-type: none"> Recognizes the consequences associated with teenage pregnancy. 	<ul style="list-style-type: none"> Consequences of teenage pregnancy; complications that may occur during a teen pregnancy, including anemia, toxemia, high blood pressure, placenta previa, and premature birth of the baby.
	<ul style="list-style-type: none"> Classification and Inheritance 	<ul style="list-style-type: none"> Identifies and analyzes physical and emotional changes associated with puberty and adolescence. Understands that reproduction is essential for the existence of every species. 	<ul style="list-style-type: none"> Common physical and emotional changes that adolescents experience during puberty; physical changes include body odor, acne, weight gain, body shape change, voice change, menstruation, pubic hair, and growth spurts; emotional changes include low self-esteem, oversensitivity, self-consciousness, peer pressure, mood swings, looking for an identity, and sexual feelings The survival value of genetic variation, general factors and the objective of reproduction

Knotion® Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • Civic Ideals, Cultural Principles, and Ethics 	<ul style="list-style-type: none"> • Analyzes and debates the rights and responsibilities of people with STDs. 	<ul style="list-style-type: none"> • Responsibilities of each partner, importance of testing and treatment, responsibility for personal health behaviors
		<ul style="list-style-type: none"> • Uses decision-making skills and strategies necessary for positive and respectful relationships. 	<ul style="list-style-type: none"> • Relationship between healthy behaviors and personal health, responsible actions around STD prevention
	<ul style="list-style-type: none"> • Government Organization, Laws, and Political Systems 	<ul style="list-style-type: none"> • Recognizes the importance of an efficient and effective public health program. 	<ul style="list-style-type: none"> • Right of receiving professional health services, government health policies regarding STDs
	<ul style="list-style-type: none"> • International Relationships and Foreign Policy 	<ul style="list-style-type: none"> • Evaluates how STDs impact the world. 	<ul style="list-style-type: none"> • Global key facts regarding STDs globally
 Environmental Awareness	<ul style="list-style-type: none"> • Physical and Cultural Characteristics, • Location, and Spatial Patterns 	<ul style="list-style-type: none"> • Sketches using maps, globes, aerial and satellite photographs, and computer models how sexually transmitted diseases are spread around the world. 	<ul style="list-style-type: none"> • Recurrence of STDs and their impact in developing countries vs. developed countries

Knotion® Subject	Topic	Learning Outcome	Content	
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words 	
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words 	
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Identifies short vowel sounds. 	<ul style="list-style-type: none"> • Short vowels a /æ/, e /ɛ/, i /ɪ/, o /ɒ/, u /ʌ/ 	
		<ul style="list-style-type: none"> • Identifies short vowel sounds. 	<ul style="list-style-type: none"> • Long vowels a /eɪ/, e /i/, i /aɪ/, o /oʊ/, u /u/ /ju/ 	
		<ul style="list-style-type: none"> • Becomes familiar with difficult spellings. 	<ul style="list-style-type: none"> • Difficult spellings 	
		<ul style="list-style-type: none"> • Becomes familiar with difficult spellings. 	<ul style="list-style-type: none"> • R-controlled vowels er, ir, ur, or /ɜr/, or /ɔr/, ar /ar/ 	
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Identifies different kinds of sentences. 	<ul style="list-style-type: none"> • Kinds of sentences 	
		<ul style="list-style-type: none"> • Identifies subjects and predicates in tag questions. 	<ul style="list-style-type: none"> • Subjects and predicates in tag questions 	
		<ul style="list-style-type: none"> • Uses the correct punctuation when writing sentences. 	<ul style="list-style-type: none"> • Punctuation in sentences 	
		<ul style="list-style-type: none"> • Recognizes sentence fragments 	<ul style="list-style-type: none"> • Sentence fragments 	
	 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that the purpose of expository nonfiction is to teach readers about a specific topic in an interesting way. 	<ul style="list-style-type: none"> • Informational expository article
		<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Describe how a narrator's or speaker's point of view influences how events are described. 	<ul style="list-style-type: none"> • Author's point of view
<ul style="list-style-type: none"> • Asks and answers questions to demonstrate understanding of a text. 			<ul style="list-style-type: none"> • Asking and answering questions 	
<ul style="list-style-type: none"> • Identifies the main idea of a story and the details that support it. 			<ul style="list-style-type: none"> • Main idea and key details 	
<ul style="list-style-type: none"> • Summarizes a story using the most important events and supporting details. 			<ul style="list-style-type: none"> • Summarizing 	

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes to give the readers facts and details about a subject or event. 	<ul style="list-style-type: none"> • Informational writing
		<ul style="list-style-type: none"> • Writes instructions to avoid situations of personal danger. 	<ul style="list-style-type: none"> • Writing instructions
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Uses appropriate verbal and nonverbal elements to deliver presentations. 	<ul style="list-style-type: none"> • Oral presentation
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on sixth-grade topics, texts, and issues, building on others' ideas and expressing their own clearly. 	<ul style="list-style-type: none"> • Social interaction
		<ul style="list-style-type: none"> • Poses and responds to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. 	<ul style="list-style-type: none"> • Effective communication of ideas

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Challenge 2



Thematic Scope and Sequence
English Pathway





Biomes and Ecosystems

Sixth Grade

Magnetik® Understanding:

Changes in ecosystems cause some species to survive and others to become extinct.

Magnetik® Question:

Why did some species become extinct and others survive?

Global Issue:

Endangered species

Challenge-Action Question:

What can I do to prevent species' extinction?



Knotion® supports the Sustainable Development Goals





Life Science

Knotion® Subject	Topic	Learning Outcome	Content
 Life Science	• Adaptations and Biological Evolution	<ul style="list-style-type: none"> • Understands that adaptations are inherited physical or behavioral changes that enhance the ability of an organism to survive and reproduce in a particular environment. 	<ul style="list-style-type: none"> • Behavioral and structural adaptations
		<ul style="list-style-type: none"> • Analyzes multiple forms of scientific evidence that support evolution. 	<ul style="list-style-type: none"> • Evidence of evolution
		<ul style="list-style-type: none"> • Explains how the concept of extinction is important in biological evolution. 	<ul style="list-style-type: none"> • Mass extinction
		<ul style="list-style-type: none"> • Uses a model to demonstrate that fossil records document appearance, diversification, and extinction of many life forms. 	<ul style="list-style-type: none"> • Fossil records
		<ul style="list-style-type: none"> • Argues that extinction occurs when the environment changes and the adaptive characteristics of a species, including its behaviors, are insufficient to allow for its survival. 	<ul style="list-style-type: none"> • Likelihood of organisms disappearing from an environment when the environment changes in specific ways

Knotion® Subject	Topic	Learning Outcome	Content
 Environmental Awareness	<ul style="list-style-type: none"> Human Interaction With the Environment 	<ul style="list-style-type: none"> Identifies some of the things people can do to prevent endangered animals from becoming extinct. 	<ul style="list-style-type: none"> Protection of endangered species, ways to help endangered species, innovative ways technology is saving endangered species
 Historical Awareness	<ul style="list-style-type: none"> Historical Chronology 	<ul style="list-style-type: none"> Explains how variations in structure, behavior, or physiology allow species to survive in a particular environment. 	<ul style="list-style-type: none"> Sequencing man's evolution in a timeline

Knotion® Subject	Topic	Learning Outcome	Content
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Separates words into syllables and identifies the open syllable. 	<ul style="list-style-type: none"> • Open syllables
		<ul style="list-style-type: none"> • Separates words into syllables and identifies the closed syllable. 	<ul style="list-style-type: none"> • Closed syllables
		<ul style="list-style-type: none"> • Identifies and uses plurals with irregular forms. 	<ul style="list-style-type: none"> • Irregular plurals
		<ul style="list-style-type: none"> • Reads and forms words that contain final syllable patterns -cial, -tial. 	<ul style="list-style-type: none"> • Final syllable patterns -cial, -tial /ʃəl/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Compares and contrasts independent and dependent clauses. 	<ul style="list-style-type: none"> • Independent and dependent clauses
		<ul style="list-style-type: none"> • Identifies clauses in complex sentences. 	<ul style="list-style-type: none"> • Clauses and complex sentences
		<ul style="list-style-type: none"> • Uses the correct punctuation in compound sentences. 	<ul style="list-style-type: none"> • Punctuation in compound and complex sentences
		<ul style="list-style-type: none"> • Uses the correct form of pronouns in sentences. 	<ul style="list-style-type: none"> • Relative pronouns
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that realistic fiction is a story about specific characters and some event in their lives. 	<ul style="list-style-type: none"> • Realistic fiction
	<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Creates a mental image that reflects or represents the ideas in the text. 	<ul style="list-style-type: none"> • Visualization
		<ul style="list-style-type: none"> • Identifies story elements, including setting, characters, and plot. 	<ul style="list-style-type: none"> • Characters, setting, and plot
		<ul style="list-style-type: none"> • Determines the theme of a story, drama, or poem from details in the text. 	<ul style="list-style-type: none"> • Theme
		<ul style="list-style-type: none"> • Explains what might happen next in a story or what the author may tell next. 	<ul style="list-style-type: none"> • Making, confirming, and revising predictions

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes narratives to develop real or imagined experiences or events using descriptive details related to the five senses. 	<ul style="list-style-type: none"> • Descriptive narrative
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Presents clear descriptions in a style appropriate to the context with an effective logical structure. 	<ul style="list-style-type: none"> • Giving a description
		<ul style="list-style-type: none"> • Adapts speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. 	<ul style="list-style-type: none"> • Oral presentations and class participation

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Challenge 3

Thematic Scope and Sequence
English Pathway





Science, Technology and Innovation

Sixth Grade

Magnetik® Understanding:

Scientific discovery and technological advancement improve our understanding of our world and the universe.

Magnetik® Question:

How does technology help us understand our world and the universe?

Global Issue:

Negative use of technology

Challenge-Action Question:

How do I use technology in a proper way in order to know how the world works?



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 **Earth Science**

Knotion® Subject	Topic	Learning Outcome	Content
<p> Earth Science</p>	<p>• Earth's Place in the Universe</p>	<ul style="list-style-type: none"> • Describes the composition and structure of the Universe in terms of size and distance. 	<ul style="list-style-type: none"> • Composition and structure of galaxies, stars, planets, asteroids, and comets
		<ul style="list-style-type: none"> • Describes the position of the Solar System in the Universe. 	<ul style="list-style-type: none"> • Location of the Sun
		<ul style="list-style-type: none"> • Uses models to demonstrate how objects in the Solar System are in regular and predictable motions that explain such phenomena as days, years, seasons, eclipses, tides, and moon cycles. 	<ul style="list-style-type: none"> • Gravitational attraction between the Sun and planets, orbits and composition of comets and asteroids
		<ul style="list-style-type: none"> • Identifies the characteristics of the Sun and its surface features. 	<ul style="list-style-type: none"> • Characteristics of the Sun

Knotion® Subject	Topic	Learning Outcome	Content
 Productivity Awareness	<ul style="list-style-type: none"> Economic Concepts and Activities 	<ul style="list-style-type: none"> Analyzes and evaluates commercialized advances thanks to space exploration. 	<ul style="list-style-type: none"> Space exploration
 Historical Awareness	<ul style="list-style-type: none"> Historical Chronology 	<ul style="list-style-type: none"> Discusses the sequence of the events that are believed to have taken place in the history of the universe. 	<ul style="list-style-type: none"> The age of the Universe, the age of the Solar System, the Big Bang Theory

Knotion® Subject	Topic	Learning Outcome	Content
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Identifies and writes words that contain the inflectional endings -ing, -s and 	<ul style="list-style-type: none"> • Inflectional endings -ing /əŋ/, -s /əs/ /əz/, and -ed /d/
		<ul style="list-style-type: none"> • Determines the meanings of words with the prefixes dis-, de-, out-, and un-. 	<ul style="list-style-type: none"> • Prefixes dis-, de-, out-, and un-
		<ul style="list-style-type: none"> • Determines the meanings of words with the suffixes -ion and -tion. 	<ul style="list-style-type: none"> • Suffixes -ion and -tion
		<ul style="list-style-type: none"> • Reads and punctuates plural possessive words. 	<ul style="list-style-type: none"> • Plurals of possessives
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Understands and uses the present perfect and present perfect progressive 	<ul style="list-style-type: none"> • Present perfect and present perfect progressive tenses
		<ul style="list-style-type: none"> • Identifies and uses main and helping verbs. 	<ul style="list-style-type: none"> • Main and helping verbs
		<ul style="list-style-type: none"> • Distinguishes when to use past simple and past perfect tenses. 	<ul style="list-style-type: none"> • Past simple and past perfect tenses
		<ul style="list-style-type: none"> • Identifies the direct and indirect objects of sentences. 	<ul style="list-style-type: none"> • Direct and indirect objects
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that the purpose of expository nonfiction is to teach readers about a specific topic in an interesting way. 	<ul style="list-style-type: none"> • Expository nonfiction
	<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Asks and answers questions to demonstrate understanding of a text. 	<ul style="list-style-type: none"> • Asking and answering questions
		<ul style="list-style-type: none"> • Identifies the similarities and differences between and among two or more things (examples: characters, ideas, issues, concepts, topics, events, places). 	<ul style="list-style-type: none"> • Comparing and contrasting
		<ul style="list-style-type: none"> • Identifies problem and solution as part of story elements. 	<ul style="list-style-type: none"> • Problem and solution
		<ul style="list-style-type: none"> • Identifies the main idea of a story and the details that support it. 	<ul style="list-style-type: none"> • Main idea and key details

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes a series of steps that we can follow to make or do something. 	<ul style="list-style-type: none"> • Instructive writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Gives and follows directions and instructions. 	<ul style="list-style-type: none"> • Giving and following directions
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on sixth-grade topics, texts, and issues, building on others' ideas and expressing their own clearly. 	<ul style="list-style-type: none"> • Social interaction

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Challenge 4



Thematic Scope and Sequence English Pathway





Origins and Cultural Diversity

Sixth Grade

Magnetik® Understanding:

The interaction of different cultures allows unique and valuable contributions to society.

Magnetik® Question:

How can cultural interactions affect community life?

Global Issue:

Cultural discrimination

Challenge-Action Question:

How can I recognize immigrant contributions to my community?



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Life Science

Knotion® Subject	Topic	Learning Outcome	Content
		<ul style="list-style-type: none"> Recognizes that every organism contains a set of genetic information (instructions) to specify its traits. 	<ul style="list-style-type: none"> Genes in the chromosomes in the nucleus of each cell
	<ul style="list-style-type: none"> Classification and Inheritance 	<ul style="list-style-type: none"> Recognizes and analyzes the differences between sexual and asexual reproduction. 	<ul style="list-style-type: none"> Sexual and asexual reproduction
		<ul style="list-style-type: none"> Uses models to demonstrate that parents transfer information from one generation to the next and this causes offspring to resemble their parents. 	<ul style="list-style-type: none"> How predictions about the appearance of offspring can be made from the appearance of the parents



Knotion® Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • Civic Ideals, Cultural Principles, and Ethics 	<ul style="list-style-type: none"> • Recognizes that assumptions can lead to stereotypes and unfair judgments about individuals and groups. 	<ul style="list-style-type: none"> • Assumptions that lead to stereotypes and unfair judgments when generalizations move into stereotypes
		<ul style="list-style-type: none"> • Analyzes and evaluates the negative consequences of prejudice and stereotypes. 	<ul style="list-style-type: none"> • People who make wrongful assumptions; sufferers of prejudice experiencing shame and anger leading to detrimental behavior; hostile behavior
		<ul style="list-style-type: none"> • Supports the importance of a diverse community and generates ideas to welcome newcomers. 	<ul style="list-style-type: none"> • Difference and respect for diversity, ethically responsible behavior
 Environmental Awareness	<ul style="list-style-type: none"> • Physical and Cultural Characteristics; Location and Spatial Patterns 	<ul style="list-style-type: none"> • Uses maps to learn about the patterns of human migration. 	<ul style="list-style-type: none"> • Human migration
	<ul style="list-style-type: none"> • Human Interaction With the Environment 	<ul style="list-style-type: none"> • Understands that human migration affects communities and environments. 	<ul style="list-style-type: none"> • The effect of environmental and social change on human migration, migration, cultural bereavement and cultural identity

Knotion® Subject	Topic	Learning Outcome	Content	
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words 	
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words 	
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Uses prefixes to decode and comprehend words. 	<ul style="list-style-type: none"> • Greek prefixes auto and hyper 	
		<ul style="list-style-type: none"> • Identifies Latin prefixes to determine the meaning of words. 	<ul style="list-style-type: none"> • Latin prefixes semi, intra, and contra 	
		<ul style="list-style-type: none"> • Identifies Greek suffixes to determine the meaning of words. 	<ul style="list-style-type: none"> • Greek suffixes 	
		<ul style="list-style-type: none"> • Determines or clarifies the meaning of unknown words. 	<ul style="list-style-type: none"> • Words from around the world 	
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Understands and uses the different future tenses with increased accuracy. 	<ul style="list-style-type: none"> • Future tenses: will and be going to 	
		<ul style="list-style-type: none"> • Understands and uses the different future tenses with increased accuracy. 	<ul style="list-style-type: none"> • Words from around the world 	
		<ul style="list-style-type: none"> • Understands and uses the past tense with increased accuracy. 	<ul style="list-style-type: none"> • Future tenses: will and be going to 	
		<ul style="list-style-type: none"> • Understands and uses the different past tenses with increased accuracy. 	<ul style="list-style-type: none"> • Future tenses: present progressive and present simple 	
	 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that a biography is a sequence of true events in a person's life. 	<ul style="list-style-type: none"> • Biography
		<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Asks and answers questions to demonstrate understanding of a text. 	<ul style="list-style-type: none"> • Asking and answering questions
<ul style="list-style-type: none"> • Summarizes a story using the most important events and supporting details. 			<ul style="list-style-type: none"> • Summarizing 	
<ul style="list-style-type: none"> • Describes how a narrator's or speaker's point of view influences how events are described. 			<ul style="list-style-type: none"> • Author's point of view 	
<ul style="list-style-type: none"> • Retells important events in sequential order. 			<ul style="list-style-type: none"> • Sequencing 	

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes narratives to develop real or imagined experiences or events that focus on a single significant event. 	<ul style="list-style-type: none"> • Personal writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Conducts and records an interview including questions that are organized following a logical sequence and staying on topic. 	<ul style="list-style-type: none"> • Interview
		<ul style="list-style-type: none"> • Poses and responds to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion. 	<ul style="list-style-type: none"> • Effective communication of ideas

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Challenge 5



Thematic Scope and Sequence
English Pathway





Productivity and Economy

Sixth Grade

Magnetik® Understanding:

Economic activities connect people, communities, and countries.

Magnetik® Question:

How do economic activities affect local, national, and international relationships?

Global Issue:

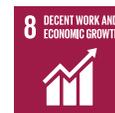
Monopolies and corporations that impact small producers

Challenge-Action Question:

What can I do to contribute to local economic development?



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 Physical Science

Knotion® Subject	Topic	Learning Outcome	Content
	<ul style="list-style-type: none"> Matter and its Interactions 	<ul style="list-style-type: none"> Recognizes that physical properties of matter can be observed or measured without changing its composition. 	<ul style="list-style-type: none"> Intensive properties such as density, color, malleability, conductivity, luster, and hardness of an object; extensive properties such as mass, volume, and length
	<ul style="list-style-type: none"> Matter and its Interactions 	<ul style="list-style-type: none"> Explains that a chemical change results in one or more substances of compositions entirely different from those of the original substances. 	<ul style="list-style-type: none"> How chemical change alters the composition of the original matter: e.g., corrosion of metals or sour milk



Knotion® Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • Civic Ideals, Cultural Principles, and Ethics 	<ul style="list-style-type: none"> • Applies an ethical understanding and perspective to business situations. 	<ul style="list-style-type: none"> • Behavioral ethics in business: moral awareness, ethical decision-making, and reactions to unethical behavior
 Productivity Awareness	<ul style="list-style-type: none"> • Economic Concepts and Activities 	<ul style="list-style-type: none"> • Identifies benefits and risks of business ownership 	<ul style="list-style-type: none"> • Risk: formal definitions, risk management
		<ul style="list-style-type: none"> • Identifies factors entrepreneurs must consider when starting and operating their businesses. 	<ul style="list-style-type: none"> • Risk analysis, strategies to reduce risk, risk in business
		<ul style="list-style-type: none"> • Understands the difference between profit and loss. 	<ul style="list-style-type: none"> • Profit and loss statement and the balance sheet, income statement
		<ul style="list-style-type: none"> • Compares different marketing strategies. 	<ul style="list-style-type: none"> • Different types of marketing strategies
		<ul style="list-style-type: none"> • Identifies and explains different roles in a business. 	<ul style="list-style-type: none"> • Roles every start-up needs filled, different roles within a company, and roles of people in organizations; roles and responsibilities in business
		<ul style="list-style-type: none"> • Identifies and uses a U.S.P. 	<ul style="list-style-type: none"> • Unique selling proposition (USP) definition; the Competitive Edge to find the USP; reasons customers buy from only one company and characteristics that customers value
		<ul style="list-style-type: none"> • Analyzes how domestic and international competition in a market economy affects goods and services. 	<ul style="list-style-type: none"> • International goods and services have a world price, the effect on local producers
		<ul style="list-style-type: none"> • Government's Role in the Economy 	

Knotion® Subject	Topic	Learning Outcome	Content
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Identifies the suffixes -ive, -age, -ize, -ship, and root words to determine the meaning of words. 	<ul style="list-style-type: none"> • Suffixes -ive, -age, -ize, and -ship
		<ul style="list-style-type: none"> • Recognizes homophones and demonstrates correct usage. 	<ul style="list-style-type: none"> • Latin prefixes semi, intra, and contra
		<ul style="list-style-type: none"> • Identifies the sound-spelling relationships of words with ti and ci. 	<ul style="list-style-type: none"> • Greek suffixes
		<ul style="list-style-type: none"> • Identifies the suffixes -ty, -ity, -ety and root words to determine the meaning of words. 	<ul style="list-style-type: none"> • Suffixes -ty, -ity, and -ety
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Identifies and structures compound sentences. 	<ul style="list-style-type: none"> • Compound sentences
		<ul style="list-style-type: none"> • Identifies the adjective clause and the appositive phrase in a complex sentence. 	<ul style="list-style-type: none"> • Adjective clauses and appositives
		<ul style="list-style-type: none"> • Applies appositive clause correctly. 	<ul style="list-style-type: none"> • Position of appositives in a sentence (beginning,
		<ul style="list-style-type: none"> • Uses the correct punctuation when placing appositives. 	<ul style="list-style-type: none"> • Appositives and punctuationsimple
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that historical fiction is a genre based on real historical events in which the characters are not real and the minor events may not be realistic. 	<ul style="list-style-type: none"> • Historical fiction
	<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Creates a mental image that reflects or represents the ideas in the text. 	<ul style="list-style-type: none"> • Visualization
		<ul style="list-style-type: none"> • Explains what might happen next in a story or what the author may tell next. 	<ul style="list-style-type: none"> • Making, confirming, and revising predictions
		<ul style="list-style-type: none"> • Describes how a narrator's or speaker's point of view influences how events are described. 	<ul style="list-style-type: none"> • Author's point of view
		<ul style="list-style-type: none"> • Retells important events in sequential order. 	<ul style="list-style-type: none"> • Sequencing

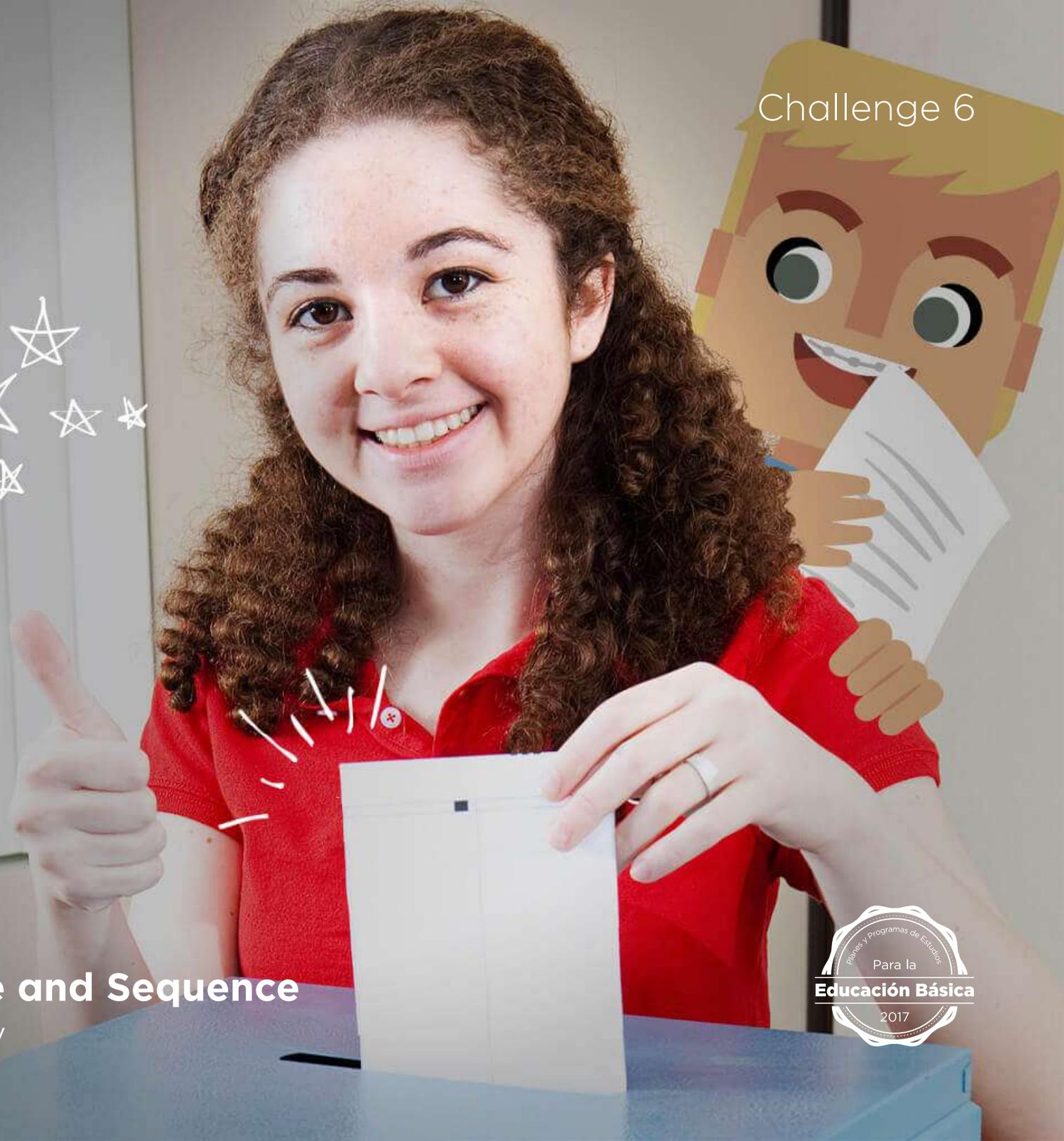
Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes a research report that defines the topic, gathers information, determines credibility, reports findings. 	<ul style="list-style-type: none"> • Research writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Uses correct English to tell a story before a group.. 	<ul style="list-style-type: none"> • Storytelling
		<ul style="list-style-type: none"> • Exchanges suggestions for acquiring or selling a product. 	<ul style="list-style-type: none"> • Selling a product
		<ul style="list-style-type: none"> • Adapts speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. 	<ul style="list-style-type: none"> • Oral presentations and class participation

6th

2019-2020



Challenge 6



Thematic Scope and Sequence
English Pathway





Power, Authority, and Civil Ideals

Sixth Grade

Magnetik® Understanding:

Active citizenship is the way to a successful democracy.

Magnetik® Question:

Why is it important to respect democratic principles?

Global Issue:

Citizen indifference and apathy

Challenge-Action Question:

How can I promote democratic principles in my community?



Knotion® supports the Sustainable Development Goals



 **Physical Science**

Knotion® Subject	Topic	Learning Outcome	Content
<p> Physical Science</p>	<ul style="list-style-type: none"> • Energy 	<ul style="list-style-type: none"> • Explores and summarizes observations of the transmission, bending (refraction), and reflection of light. 	<ul style="list-style-type: none"> • How a prism refracts light, the factors that affect the amount of refraction
		<ul style="list-style-type: none"> • Applies the laws of reflection and refraction to plane and spherical surfaces and discuss the principles of various optical instruments. 	<ul style="list-style-type: none"> • Curved surfaces and lenses, image formation at a spherical refracting surface, real vs. virtual images, convex vs. concave surfaces, image formation rules for a lens
		<ul style="list-style-type: none"> • Explains wave propagation of light, interference, diffraction, polarization of light waves, and the electromagnetic nature of light. 	<ul style="list-style-type: none"> • Wave theory of light, the wave nature of light, the nature and properties of light



Citizenship Awareness

Knotion® Subject	Topic	Learning Outcome	Content
<p>Citizenship Awareness</p>	<ul style="list-style-type: none"> • Civic Ideals, Cultural Principles, and Ethics 	<ul style="list-style-type: none"> • Understands that citizens' rights include freedom of religion, speech and press, right of petition, and right of assembly. 	<ul style="list-style-type: none"> • The rights to freedom of peaceful assembly and of association, the role of democracy, the role of government in guaranteeing human rights
	<ul style="list-style-type: none"> • Civic Involvement 	<ul style="list-style-type: none"> • Describes the ways citizens participate in and influence their local, state, and national democratic government. 	<ul style="list-style-type: none"> • Practice, incentives, and organization
		<ul style="list-style-type: none"> • Recognizes that effective civic participation requires that individuals make informed and responsible decisions. 	<ul style="list-style-type: none"> • The role of technology in public policy decisions
		<ul style="list-style-type: none"> • Understands that civic participation embraces the ideal that individuals actively engage in their community, state, or national government for the common good. 	<ul style="list-style-type: none"> • Positive participation in elections, attending hearing sessions, taking part in community task forces
		<ul style="list-style-type: none"> • Identifies and analyzes how citizen participation has forced governments to change their policies for the common good. 	<ul style="list-style-type: none"> • Examples of governmental changes due to citizens' involvement and protests

Knotion® Subject	Topic	Learning Outcome	Content
 Language Mastery	<ul style="list-style-type: none"> • Word Knowledge 	<ul style="list-style-type: none"> • Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> • High-frequency words
		<ul style="list-style-type: none"> • Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> • Challenge words
	<ul style="list-style-type: none"> • Phonics 	<ul style="list-style-type: none"> • Uses parts of a compound word to determine the meaning of the whole word. • meaning of words. 	<ul style="list-style-type: none"> • Compound words
		<ul style="list-style-type: none"> • Recognizes and pronounces pairs of vowels. 	<ul style="list-style-type: none"> • Vowel team syllables
		<ul style="list-style-type: none"> • Understands that the final letter of a prefix is absorbed into the root that follows it, which usually results in a double consonant. 	<ul style="list-style-type: none"> • Absorbed prefixes
		<ul style="list-style-type: none"> • Correctly pronounces and writes words with the endings -ice, -ise, and -ize. 	<ul style="list-style-type: none"> • Word endings -ice, -ise, and -ize, /ais/ /aiz/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Makes comparisons using different comparative adjective forms. 	<ul style="list-style-type: none"> • Adjectives that compare
		<ul style="list-style-type: none"> • Uses a variety of adverbs to describe actions and modify adjectives. 	<ul style="list-style-type: none"> • Adverbs
		<ul style="list-style-type: none"> • Uses the comparative form of adverbs. 	<ul style="list-style-type: none"> • Adverbs and adverbial expressions
		<ul style="list-style-type: none"> • Identifies and properly uses adjectives and adverbs. 	<ul style="list-style-type: none"> • Adjectives vs. adverbs
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that narrative nonfiction is a genre in which factual matter is presented in a narrative style using literary techniques. 	<ul style="list-style-type: none"> • Narrative nonfiction
	<ul style="list-style-type: none"> • Strategies and Skills 	<ul style="list-style-type: none"> • Identifies the main idea of a story and the details that support it. 	<ul style="list-style-type: none"> • Main idea and key details
		<ul style="list-style-type: none"> • Summarizes a story using the most important events and supporting details. 	<ul style="list-style-type: none"> • Summarizing
		<ul style="list-style-type: none"> • Retells important events in sequential order.described. 	<ul style="list-style-type: none"> • Sequencing
		<ul style="list-style-type: none"> • Identifies statements that show cause and effect and understands the difference between them. 	<ul style="list-style-type: none"> • Cause and effect

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Organizes ideas and information using a clear topic sentence, details, explanation, and concluding sentence and supports an opinion with relevant reasons. 	<ul style="list-style-type: none"> • Persuasive writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Expresses an opinion and supports it with details and examples. 	<ul style="list-style-type: none"> • Persuasive speech
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on sixth grade topics, texts, and issues, building on others' ideas and expressing their own clearly. 	<ul style="list-style-type: none"> • Social interaction

6th

2019-2020

Challenge 7

Thematic Scope and Sequence
English Pathway





Crisis and Conflict Resolution

Sixth Grade

Magnetik® Understanding:

Mediation is an instrument that promotes peace.

Magnetik® Question:

How can a conflict be resolved when both parties seem to be right?

Global Issue:

Clash of opinions

Challenge-Action Question:

What can I do to become an effective mediator in a classroom conflict?



Knotion® supports the Sustainable Development Goals





Physical Science

Knotion® Subject	Topic	Learning Outcome	Content
Physical Science	<ul style="list-style-type: none"> • Motion, Force, and Interactions 	<ul style="list-style-type: none"> • Identifies the differences between work and force as it relates to each of the six simple machines. 	<ul style="list-style-type: none"> • Six simple machines and how each one exchanges force for distance, calculation of work by multiplying the force times the distance the force moves an object
		<ul style="list-style-type: none"> • Recognizes that compound machines are made up of simple machines. 	<ul style="list-style-type: none"> • Simple machines in simple compound machines such as a wheelbarrow or a corkscrew



Citizenship Awareness

Knotion® Subject	Topic	Learning Outcome	Content
<p>Citizenship Awareness</p>	<ul style="list-style-type: none"> • Civic Ideals, Cultural Principles, and Ethics 	<ul style="list-style-type: none"> • Understands how certain responses during a conflict can determine the outcome. 	<ul style="list-style-type: none"> • Conflict as a normal part of a healthy relationship and what happens when conflict is mismanaged
		<ul style="list-style-type: none"> • Identifies good and bad decisions in conflicts. 	<ul style="list-style-type: none"> • Wrong decisions when dealing with conflict
		<ul style="list-style-type: none"> • Understands how to take a step back from anger and listen. 	<ul style="list-style-type: none"> • Steps for managing anger as a resource for conflict resolution
		<ul style="list-style-type: none"> • Understands that civic participation embraces the ideal that individuals actively engage in their community, state, or national government for the common good. 	<ul style="list-style-type: none"> • Positive qualities and ways to recognize them in others
		<ul style="list-style-type: none"> • Understands the role of the mediator. 	<ul style="list-style-type: none"> • Roles of the mediator and when mediation is necessary
		<ul style="list-style-type: none"> • Understands how using the mediation process will help resolve one's conflicts. 	<ul style="list-style-type: none"> • How meditation helps to resolve conflicts

Knotion® Subject	Topic	Learning Outcome	Content	
 Language Mastery	<ul style="list-style-type: none"> Word Knowledge 	<ul style="list-style-type: none"> Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> High-frequency words 	
		<ul style="list-style-type: none"> Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> Challenge words 	
	<ul style="list-style-type: none"> Phonics 	<ul style="list-style-type: none"> Understands that the schwa sound is only found in unstressed syllables. 	<ul style="list-style-type: none"> Schwa /ə/ 	
		<ul style="list-style-type: none"> Uses Latin roots to define complex words. 	<ul style="list-style-type: none"> Latin roots mit, fract 	
		<ul style="list-style-type: none"> Determines the meanings of words with the suffixes -ible and -able. 	<ul style="list-style-type: none"> Suffixes -ible, -able 	
		<ul style="list-style-type: none"> Determines the meanings of words with the prefixes bi-, tri-, and uni-. 	<ul style="list-style-type: none"> Prefixes bi-, tri-, uni- 	
	<ul style="list-style-type: none"> Structure and Function 	<ul style="list-style-type: none"> Identifies prepositions and forms prepositional phrases. 	<ul style="list-style-type: none"> Prepositions and prepositional phrases 	
		<ul style="list-style-type: none"> Structures compound sentences using a range of linking words. 	<ul style="list-style-type: none"> Sentence combining 	
		<ul style="list-style-type: none"> Understands and uses complex punctuation. 	<ul style="list-style-type: none"> Punctuation marks: semicolons, colons, quotation marks 	
		<ul style="list-style-type: none"> Correctly writes and punctuates direct quotations. 	<ul style="list-style-type: none"> Direct quotations 	
	 Reading Skills	<ul style="list-style-type: none"> Genre 	<ul style="list-style-type: none"> Understands that poetry is the art of rhythmic composition, written or spoken, for exciting pleasure with beautiful, imaginative, or elevated thoughts. 	<ul style="list-style-type: none"> Poetry
		<ul style="list-style-type: none"> Strategies and Skills 	<ul style="list-style-type: none"> Creates a mental image that reflects or represents the ideas in the text. 	<ul style="list-style-type: none"> Visualization
<ul style="list-style-type: none"> Determines the theme of a story, drama, or poem from details in the text. 			<ul style="list-style-type: none"> Theme 	
<ul style="list-style-type: none"> Asks and answers questions to demonstrate understanding of a text. 			<ul style="list-style-type: none"> Asking and answering questions 	
<ul style="list-style-type: none"> Compares and contrasts elements in multiple texts (e.g., setting, characters, and problems). 			<ul style="list-style-type: none"> Compare and contrast 	

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes opinion pieces on topics or texts, supporting a point of view with facts and details. 	<ul style="list-style-type: none"> • Opinion writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Demonstrates creative thinking and dramatic skills. 	<ul style="list-style-type: none"> • Persuasive speech
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on sixth-grade topics, texts, and issues, building on others' ideas and expressing their own clearly. 	<ul style="list-style-type: none"> • Social interaction

6th

2019-2020

Challenge 8

Thematic Scope and Sequence
English Pathway





Environment and Sustainability

Sixth Grade

Magnetik® Understanding:

Renewable energy generated from natural resources reduces environmental degradation.

Magnetik® Question:

How does renewable energy reduce environmental deterioration?

Global Issue:

Depletion of nonrenewable natural resources

Challenge-Action Question:

How can I generate energy in a sustainable way?



Knotion® supports the Sustainable Development Goals





 **Earth Science**

Knotion® Subject	Topic	Learning Outcome	Content
		<ul style="list-style-type: none"> • Understands that changes to Earth's environments can have different impacts (negative and positive) for different living things. 	<ul style="list-style-type: none"> • Minimizing human impact on the environment
<ul style="list-style-type: none"> • Earth's Systems 		<ul style="list-style-type: none"> • Evaluates that human activities are major factors in the current rise in Earth's mean surface temperature. 	<ul style="list-style-type: none"> • Evidence of the factors that have caused the rise in global temperatures over the past century
		<ul style="list-style-type: none"> • Compares and contrasts ozone depletion and climate change. 	<ul style="list-style-type: none"> • Similarities and differences between the issues of ozone depletion and enhanced greenhouse gas warming

Knotion® Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • International Relationships and Foreign Policy. 	<ul style="list-style-type: none"> • Analyzes international legislations regarding global warming. 	<ul style="list-style-type: none"> • International treaties on global warming and climate change issues
 Environmental Awareness	<ul style="list-style-type: none"> • Human Interaction With the Environment. 	<ul style="list-style-type: none"> • Analyzes and uses models to demonstrate how the environment affects people and how people affect the environment. 	<ul style="list-style-type: none"> • How the environment affects people, and vice versa

Knotion® Subject	Topic	Learning Outcome	Content	
 Language Mastery	<ul style="list-style-type: none"> Word Knowledge 	<ul style="list-style-type: none"> Acquires new grade-level vocabulary words in a variety of contexts. 	<ul style="list-style-type: none"> High-frequency words 	
		<ul style="list-style-type: none"> Acquires new vocabulary words related to the challenge. 	<ul style="list-style-type: none"> Challenge words 	
	<ul style="list-style-type: none"> Phonics 	<ul style="list-style-type: none"> Determines the meanings of words with the suffixes -ance, -ence, -ant, and -ent. 	<ul style="list-style-type: none"> Suffixes -ance, -ence, -ant, and -ent 	
		<ul style="list-style-type: none"> Identifies and defines homographs. 	<ul style="list-style-type: none"> Homographs 	
		<ul style="list-style-type: none"> Identifies consonant blends in a text. 	<ul style="list-style-type: none"> Blends 	
		<ul style="list-style-type: none"> Defines words containing the Greek word parts chron and phon. 	<ul style="list-style-type: none"> Greek word parts chron and phon 	
	<ul style="list-style-type: none"> Structure and Function 	<ul style="list-style-type: none"> Recognizes and fixes a double negative. 	<ul style="list-style-type: none"> Negatives 	
		<ul style="list-style-type: none"> Recognizes and uses conjunctions correctly in sentences. 	<ul style="list-style-type: none"> Conjunctions 	
		<ul style="list-style-type: none"> Identifies whether a verb is followed by a gerund or infinitive. 	<ul style="list-style-type: none"> Gerunds and infinitives 	
		<ul style="list-style-type: none"> Uses ellipses to show pause, suspense, or anticipation. 	<ul style="list-style-type: none"> Ellipses 	
	 Reading Skills	<ul style="list-style-type: none"> Genre 	<ul style="list-style-type: none"> Understands that a myth is a traditional story, especially one concerning the early history of a people or explaining a natural or social phenomenon and typically involving supernatural beings or events. 	<ul style="list-style-type: none"> Myth
		<ul style="list-style-type: none"> Strategies and Skills 	<ul style="list-style-type: none"> Explains what might happen next in a story or what the author may tell next. 	<ul style="list-style-type: none"> Making, confirming, and revising predictions
<ul style="list-style-type: none"> Identifies story elements including, setting, characters, and plot. 			<ul style="list-style-type: none"> Characters, setting, and plot 	
<ul style="list-style-type: none"> Makes connections to real life experiences, real events, and other texts to understand a text better. 			<ul style="list-style-type: none"> Making connections 	
<ul style="list-style-type: none"> Identifies problem and solution as part of story elements. 			<ul style="list-style-type: none"> Problem and solution 	

Knotion® Subject	Topic	Learning Outcome	Content
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Writes real or imagined stories using details and well-structured sequence of events. 	<ul style="list-style-type: none"> • Free writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Writes, produces, and records a radio show around a given topic using language and actions to explore and convey situations, characters, and emotions. 	<ul style="list-style-type: none"> • Radio show
		<ul style="list-style-type: none"> • Adapts speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. 	<ul style="list-style-type: none"> • Oral presentations and class participation