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2018-2019

Thematic Scope and Sequence
English Pathway





Health and Well-being

Fourth Grade

Magnetik **Understanding:**

Diet and lifestyle impact our personal and community well-being.

Magnetik **Question:**

In what way can our diet and lifestyle affect our health?

Global **Issue:**

Unhealthy diets and lifestyles

Challenge-**Action Question:**

How can I promote a healthy lifestyle in my family?



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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 what constitutes the long vowel sound o. 	<ul style="list-style-type: none"> • Long vowel o /oʊ/
		<ul style="list-style-type: none"> • Understands what constitutes the short vowel sound in words with the VCCV pattern. 	<ul style="list-style-type: none"> • Short vowels in VCCV
		<ul style="list-style-type: none"> • Identifies the spelling-sound correspondences for the long e sound. 	<ul style="list-style-type: none"> • Long e sound, ei, ey, y /i/
		<ul style="list-style-type: none"> • Understands what constitutes the long vowel sound u. 	<ul style="list-style-type: none"> • Vowel sound /u/ /ju/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Identifies and creates complete sentences. 	<ul style="list-style-type: none"> • Sentences
		<ul style="list-style-type: none"> • Identifies the subject and predicate of sentences. 	<ul style="list-style-type: none"> • Subjects and predicates
		<ul style="list-style-type: none"> • Structures compound and complex sentences. 	<ul style="list-style-type: none"> • Compound and complex sentences
		<ul style="list-style-type: none"> • Identifies and fixes run-on sentences. 	<ul style="list-style-type: none"> • Run-on sentences
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that persuasive writing is a type of nonfiction writing used to convince the reader to agree with the author about an issue. 	<ul style="list-style-type: none"> • Persuasive article
	<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"> • 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"> • Summarizes a story using the most important events and supporting details. 	<ul style="list-style-type: none"> • Summarizing
		<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
 Writing Workshop	<ul style="list-style-type: none"> • Writing Strategy 	<ul style="list-style-type: none"> • Expresses an opinion on a topic including persuasive arguments. 	<ul style="list-style-type: none"> • Persuasive writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Analyzes and evaluates media. 	<ul style="list-style-type: none"> • Purposes of media
		<ul style="list-style-type: none"> • Comments and compares publicity messages. 	<ul style="list-style-type: none"> • Publicity messages
		<ul style="list-style-type: none"> • Poses and responds to specific questions to clarify or follow up on information, and makes comments that contribute to the discussion linking to the remarks of others. 	<ul style="list-style-type: none"> • Listening, asking questions, explaining own ideas, and speaking on topic, being able to paraphrase materials read aloud
		<ul style="list-style-type: none"> • Gives and follows health care instructions. 	<ul style="list-style-type: none"> • Giving and following instructions



Knotion Subject	Topic	Learning Outcome	Content
 Life Science	<ul style="list-style-type: none"> Organisms' Structures and Processes 	<ul style="list-style-type: none"> Identifies the organs of the digestive system and explains how they work. 	<ul style="list-style-type: none"> Organs and functions of the digestive system
		<ul style="list-style-type: none"> Understands that the digestive system takes in food and breaks it down into nutrients. 	<ul style="list-style-type: none"> Nutrients and how they are absorbed
		<ul style="list-style-type: none"> Explains how the immune system works. 	<ul style="list-style-type: none"> Immune system
		<ul style="list-style-type: none"> Describes how vaccines work and how they help the immune system. 	<ul style="list-style-type: none"> Vaccines
	<ul style="list-style-type: none"> Health 	<ul style="list-style-type: none"> Identifies practices to keep the digestive and immune systems healthy. 	<ul style="list-style-type: none"> Actions to avoid diseases: bring healthy lunches, wash fruits and vegetables, drink filtered water
		<ul style="list-style-type: none"> Describes and compares the elements of a healthy diet. 	<ul style="list-style-type: none"> Fats, carbohydrates, proteins, vitamins, minerals
<ul style="list-style-type: none"> Concludes that a balanced diet and healthy habits lead to healthy growth. 		<ul style="list-style-type: none"> Healthy eating and physical activity 	



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 health messages in the media. 	<ul style="list-style-type: none"> Importance of media on healthy lifestyles and diets
		<ul style="list-style-type: none"> Recognizes the importance in complying with the national vaccination program. 	<ul style="list-style-type: none"> National vaccination program; mandatory vaccines
 Productivity Awareness	<ul style="list-style-type: none"> Economic Issues 	<ul style="list-style-type: none"> Understands that it is better to prevent disease rather than try to find cures for diseases after they occur. 	<ul style="list-style-type: none"> Prevention



Biomes and Ecosystems

Fourth Grade

Magnetik **Understanding:**

A balanced ecosystem depends on the interaction between its biotic and abiotic factors.

Magnetik **Question:**

How do the interactions between organisms keep an ecosystem balanced?

Global **Issue:**

Ecological disruption

Challenge-Action **Question:**

How can I contribute to solving an ecological problem in my community?



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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. 	<ul style="list-style-type: none"> • Compound words
		<ul style="list-style-type: none"> • Determines the meanings of words with the prefixes mis-, dis-, in-. 	<ul style="list-style-type: none"> • Prefixes mis-, dis-, in-
		<ul style="list-style-type: none"> • Identifies the spelling-sound correspondences for the consonant digraph ng and the blend nk. 	<ul style="list-style-type: none"> • Digraph ng /ŋ/ and blend nk /nk/
		<ul style="list-style-type: none"> • Identifies the v-sound relationships of r-controlled vowels a and o. 	<ul style="list-style-type: none"> • R- controlled vowels a /ar/ and o /or/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Identifies compound nouns. 	<ul style="list-style-type: none"> • Compound nouns
		<ul style="list-style-type: none"> • Identifies collective nouns. 	<ul style="list-style-type: none"> • Collective nouns
		<ul style="list-style-type: none"> • Uses possessive nouns. 	<ul style="list-style-type: none"> • Possessive nouns
		<ul style="list-style-type: none"> • Identifies pronouns and their antecedents in order to verify their agreement. 	<ul style="list-style-type: none"> • Pronouns and antecedents
 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, but 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"> • 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"> • Summarizes a story using the most important events and supporting details. 	<ul style="list-style-type: none"> • Summarizing
		<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"> • Determines the theme of a story, drama, or poem from details in the text. 	<ul style="list-style-type: none"> • Theme
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<ul style="list-style-type: none"> • Informs about a specific topic using relevant and factual information. 	<ul style="list-style-type: none"> • Informational writing
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Delivers informational speech supporting spoken ideas with details and examples. 	<ul style="list-style-type: none"> • Informational speech
		<ul style="list-style-type: none"> • Expresses and responds to concerns in brief dialogues. 	<ul style="list-style-type: none"> • Expressing concerns
		<ul style="list-style-type: none"> • Understands the function and use of the conventions of academic language when speaking. 	<ul style="list-style-type: none"> • Appropriate rate and accuracy



Knotion Subject	Topic	Learning Outcome	Content
 Life Science	<ul style="list-style-type: none"> Organisms' Structures and Processes 	<ul style="list-style-type: none"> Understands that the difference between a plant and an animal is that a plant makes its own food. 	<ul style="list-style-type: none"> Autotrophs and heterotrophs
		<ul style="list-style-type: none"> Understands that plants get nutrients from the ground to make their own food. 	<ul style="list-style-type: none"> Plants as autotrophs
		<ul style="list-style-type: none"> Explains and demonstrates that plants produce sugar through photosynthesis, and identifies that photosynthesis needs light, water, and carbon dioxide. 	<ul style="list-style-type: none"> The role of light in the photosynthesis process
	<ul style="list-style-type: none"> Ecology 	<ul style="list-style-type: none"> Demonstrates how energy is transferred through food webs and what happens when this flow is interrupted. 	<ul style="list-style-type: none"> Energy flow; the Sun as the food source for all consumers (directly or indirectly)
		<ul style="list-style-type: none"> Identifies and explains the food chain, food webs, and trophic levels. 	<ul style="list-style-type: none"> Food chains, food webs, trophic levels
		<ul style="list-style-type: none"> Understands food decomposition and demonstrates how it can be prevented or delayed. 	<ul style="list-style-type: none"> Decomposers: fungi and bacteria; canning, refrigerating, and fermentation



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 people have the right to be protected against discrimination and abuse to guarantee civil and human rights. 	<ul style="list-style-type: none"> Social and environmental discrimination
 Environmental Awareness	<ul style="list-style-type: none"> Human Interaction With the Environment. 	<ul style="list-style-type: none"> Describes ways that humans can improve or harm the health of ecosystems. 	<ul style="list-style-type: none"> The human factor to improve or harm the health of ecosystems



Science, Technology, and Innovation

Fourth Grade

Magnetik **Understanding:**

Technology allows a better understanding of natural phenomena.

Magnetik **Question:**

How does science help us understand and prepare for a natural phenomenon?

Global **Issue:**

How can I help improve the school's protocols before, during, and after a disaster caused by natural phenomena?

Challenge-**Action Question:**

How can I be better prepared to deal with a natural disaster?

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knowledge in action

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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 uses three letter blends. 	<ul style="list-style-type: none"> • Three letter blends
		<ul style="list-style-type: none"> • Identifies and reads words with the silent letter combinations wr, kn, and mb. 	<ul style="list-style-type: none"> • Words with silent letters wr, kn, and mb
		<ul style="list-style-type: none"> • Identifies the r-controlled vowel spelling patterns er, ir, and ur. 	<ul style="list-style-type: none"> • R-controlled vowels er, ir, and ur /ɜr/
		<ul style="list-style-type: none"> • Recognizes soft c and soft g spelling patterns. 	<ul style="list-style-type: none"> • Soft c /s/ and g /dʒ/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Applies subject-verb agreement rules. 	<ul style="list-style-type: none"> • Subject-verb agreement
		<ul style="list-style-type: none"> • Understands the difference between the past simple and past progressive tenses. 	<ul style="list-style-type: none"> • Past simple vs. past progressive tenses
		<ul style="list-style-type: none"> • Understands present perfect tense to express experiences, immediate past, and for actions that started in the past but continue in the present. 	<ul style="list-style-type: none"> • Present perfect tense
		<ul style="list-style-type: none"> • Understands the difference between the present perfect and past simple tenses. 	<ul style="list-style-type: none"> • Present perfect vs. past simple tenses
 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 text
	<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"> • Identifies the similarities and differences between and among two or more things (example: characters, ideas, issues, concepts, topics, events, places). 	<ul style="list-style-type: none"> • Comparing and contrasting
		<ul style="list-style-type: none"> • Retells important events in sequential order. 	<ul style="list-style-type: none"> • Sequence
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<ul style="list-style-type: none"> • Writes stories using descriptive words to make stories clearer and more interesting. 	<ul style="list-style-type: none"> • Creative writing
<ul style="list-style-type: none"> • Writes dialogues in which expressions to offer and ask for help are used. 		<ul style="list-style-type: none"> • Asking for help 	
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Delivers oral presentations maintaining a clear focus. 	<ul style="list-style-type: none"> • Presentation
<ul style="list-style-type: none"> • Poses and responds to specific questions to clarify or follow up on information, and makes comments that contribute to the discussion linking to the remarks of others. 		<ul style="list-style-type: none"> • Listening, asking questions, explaining own ideas, and speaking on topic, being able to paraphrase materials read aloud 	
<ul style="list-style-type: none"> • Exchanges expressions used to offer and ask for help. 		<ul style="list-style-type: none"> • Asking for help 	

Scientific Perspective



Knotion Subject	Topic	Learning Outcome	Content
 Physical Science	<ul style="list-style-type: none"> • Motion, Forces, and Interactions 	<ul style="list-style-type: none"> • Explains how forces can cause an object to either speed up, slow down, or go in a different direction. • Understands that changes in speed or direction of motion are caused by a force. 	<ul style="list-style-type: none"> • Relationship between a force and an object's change in direction • Predicting the speed or direction of an object
 Earth Science	<ul style="list-style-type: none"> • Earth's Systems 	<ul style="list-style-type: none"> • Demonstrates how temperature and water masses cause tropical storms and hurricanes. • Illustrates how mountain ranges, deep ocean trenches, ocean floor structures, earthquakes, and volcanoes occur in patterns. • Demonstrates how the landscape changes when earthquakes or volcanic eruptions occur. • Understands that humans cannot eliminate natural hazards but can take steps to reduce their impact. 	<ul style="list-style-type: none"> • Tropical storms and hurricanes • Data from maps to describe patterns of Earth's features • Changes in a landscape when a volcanic eruption occurs • Impacts of natural phenomena

Social Participation



Knotion Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • Government Organization, Laws, and Political Systems 	<ul style="list-style-type: none"> • Creates safety procedures and rules and explains why they are needed. • Investigates disaster and emergency planning for preparedness, response, and recovery. 	<ul style="list-style-type: none"> • Importance of following rules and having procedures in case of natural disasters • Emergency and disaster planning
 Historical Awareness	<ul style="list-style-type: none"> • Causes and Consequences of Historical Events 	<ul style="list-style-type: none"> • Investigates causes and consequences of natural disasters in the past. 	<ul style="list-style-type: none"> • Examples: Pompeii, Hurricane Katrina, Mexico City Earthquake



Origins and Cultural Diversity

Fourth Grade

Magnetik **Understanding:**

Different traditions and cultural heritages contribute to a country's diversity.

Magnetik **Question:**

How can different cultures impact our community life?

Global **Issue:**

Migration Issues

Challenge-**Action Question:**

How can I enrich my culture with the contribution of other cultures?



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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 and -ed. 	<ul style="list-style-type: none"> • Inflectional endings -ing /əɪ/ and -ed /d/ /t/ /ə/ 	
		<ul style="list-style-type: none"> • Writes and spells words containing the diphthongs oi and ou. 	<ul style="list-style-type: none"> • Diphthongs /ɔɪ/ and /oʊ/ 	
		<ul style="list-style-type: none"> • Creates and uses plural nouns. 	<ul style="list-style-type: none"> • Plural nouns 	
		<ul style="list-style-type: none"> • Reads and forms words that contain consonant-le. 	<ul style="list-style-type: none"> • Consonant +le syllable /əl/ 	
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Identifies and uses the modal can. 	<ul style="list-style-type: none"> • Can and can't 	
		<ul style="list-style-type: none"> • Identifies and uses modal verbs of probability: may and might. 	<ul style="list-style-type: none"> • Modal verbs: may and might for permission and possibility 	
		<ul style="list-style-type: none"> • Identifies and uses adverbs. 	<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"> • Comparing with adverbs 	
	 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that drama is a prose or verse composition intended for representation by actors impersonating the characters and performing the dialogue and action. 	<ul style="list-style-type: none"> • Drama
		<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"> • 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"> • Creates mental images that reflect or represent the ideas in the text. 			<ul style="list-style-type: none"> • Visualization 	
<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 	
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<ul style="list-style-type: none"> • Writes narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences. 	<ul style="list-style-type: none"> • Narrative writing 	
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Tells a story in logical sequence with a beginning, middle, and end with an effective introduction and conclusion. 	<ul style="list-style-type: none"> • Telling a story 	
		<ul style="list-style-type: none"> • Understands the function and use of the conventions of academic language when speaking. 	<ul style="list-style-type: none"> • Appropriate rate and accuracy to be understood 	
		<ul style="list-style-type: none"> • Interprets and compares information given by an image. 	<ul style="list-style-type: none"> • Information in illustrated texts 	



Knotion Subject	Topic	Learning Outcome	Content
 Physical Science	<ul style="list-style-type: none"> Matter and Its Interactions 	<ul style="list-style-type: none"> Explains that matter has different states and that each state has distinct physical properties. 	<ul style="list-style-type: none"> States of matter and physical properties
		<ul style="list-style-type: none"> Identifies characteristics of a simple physical change. 	<ul style="list-style-type: none"> How heating or cooling changes water from one state to another and back
		<ul style="list-style-type: none"> Identifies characteristics of a simple chemical change. 	<ul style="list-style-type: none"> Chemical changes
		<ul style="list-style-type: none"> Understands that materials made by chemically combining two or more substances may have properties that differ from the original materials. 	<ul style="list-style-type: none"> Materials used in a chemical reaction; reactants and materials formed in chemical reactions; products



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"> Understands the key ideals of unity and diversity. 	<ul style="list-style-type: none"> Characteristics of unity and diversity and how culture is affected by them
		<ul style="list-style-type: none"> Recognizes people's struggle against cultural and ethnic discrimination. 	<ul style="list-style-type: none"> Struggles against cultural and ethnic discrimination
		<ul style="list-style-type: none"> Describes the social and cultural life and interactions among people based on values and traditions. 	<ul style="list-style-type: none"> Values and traditions and interactions among people of different heritage
 Environmental Awareness	<ul style="list-style-type: none"> Physical and Cultural Characteristics 	<ul style="list-style-type: none"> Compares main characteristics of different cultures around the world. 	<ul style="list-style-type: none"> Characteristics of different cultures around the world
		<ul style="list-style-type: none"> Explains the benefits of diversity for a community. 	<ul style="list-style-type: none"> Benefits of cultural diversity, including the increased range of viewpoints, ideas, customs, and choices available
 Historical Awareness	<ul style="list-style-type: none"> Historical Chronology 	<ul style="list-style-type: none"> Creates and explains a community timeline that displays events that are still celebrated or remembered today. 	<ul style="list-style-type: none"> Timeline of celebrations and traditions in the community
		<ul style="list-style-type: none"> Examines the historical conditions that have contributed to cultural division around the world. 	<ul style="list-style-type: none"> Causes and consequences of cultural diversity around the world



Productivity and Economy

Fourth Grade

Magnetik **Understanding:**

Employment boosts economic development and contributes to people's well-being.

Magnetik **Question:**

How does employment influence people's lives?

Global **Issue:**

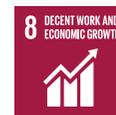
Unemployment

Challenge-**Action Question:**

How can I help the unemployed in my community?



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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 open syllables. 	<ul style="list-style-type: none"> • Open syllables
		<ul style="list-style-type: none"> • Identifies closed syllables. 	<ul style="list-style-type: none"> • Closed syllables
		<ul style="list-style-type: none"> • Recognizes and pronounces vowel pairs correctly. 	<ul style="list-style-type: none"> • Vowel teams
		<ul style="list-style-type: none"> • Identifies when to change a final y to i before adding -ed and -s. 	<ul style="list-style-type: none"> • Inflectional endings: changing y to i
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Creates complex sentences by learning about independent and dependent clauses. 	<ul style="list-style-type: none"> • Clauses and complex sentences
		<ul style="list-style-type: none"> • Uses different types of sentences: statements and questions. 	<ul style="list-style-type: none"> • Declarative and interrogative sentences
		<ul style="list-style-type: none"> • Understands and uses wh question words to ask questions. 	<ul style="list-style-type: none"> • Wh questions
		<ul style="list-style-type: none"> • Uses different types of sentences: imperative and exclamatory. 	<ul style="list-style-type: none"> • Imperative and exclamatory sentences
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that an autobiography is a story from the writer's own life that has an organized sequence of events and is written in first person (using I). 	<ul style="list-style-type: none"> • Autobiography
	<ul style="list-style-type: none"> • Strategies and Skills 	<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"> • Identifies problem and solution as part of story elements. 	<ul style="list-style-type: none"> • Problem and solution
		<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. 	<ul style="list-style-type: none"> • Sequence
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<ul style="list-style-type: none"> • Applies characteristics of personal narratives that tell a story focusing on one significant event. 	<ul style="list-style-type: none"> • Personal writing
<ul style="list-style-type: none"> • Writes and answers letters with personal experiences. 	<ul style="list-style-type: none"> • Personal experiences 		
 Communication	<ul style="list-style-type: none"> • Oral Communication 	<ul style="list-style-type: none"> • Speaks clearly, accurately, and fluently using a series of steps that we can follow to make or do something. 	<ul style="list-style-type: none"> • How to: demonstration
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led). 	<ul style="list-style-type: none"> • Social interaction and balanced participation in conversation
		<ul style="list-style-type: none"> • Shares and compares personal experiences. 	<ul style="list-style-type: none"> • Personal experiences



Knotion Subject	Topic	Learning Outcome	Content
 Physical Science	<ul style="list-style-type: none"> • Energy 	<ul style="list-style-type: none"> • Explains how light travels and interacts with other objects. 	<ul style="list-style-type: none"> • Reflection and refraction
		<ul style="list-style-type: none"> • Understands that objects can be seen only when light is available to illuminate them. 	<ul style="list-style-type: none"> • Objects can be seen only when illuminated
		<ul style="list-style-type: none"> • Illustrates that some materials block light. 	<ul style="list-style-type: none"> • Opaque, translucent, transparent
		<ul style="list-style-type: none"> • Investigates what happens when a light source is partially blocked with various materials 	<ul style="list-style-type: none"> • Light diffraction
 Earth Science	<ul style="list-style-type: none"> • Earth's Place in the Universe 	<ul style="list-style-type: none"> • Understands that an eclipse happens when a planet or a moon gets in the way of the Sun's light. 	<ul style="list-style-type: none"> • Eclipses
		<ul style="list-style-type: none"> • Describes the positioning of the Sun, the Moon, and the Earth during a solar and lunar eclipse. 	<ul style="list-style-type: none"> • Types of eclipses



Knotion Subject	Topic	Learning Outcome	Content
 Productivity Awareness	<ul style="list-style-type: none"> • Economic Concepts and Activities 	<ul style="list-style-type: none"> • Explores economic concepts, such as salary, wage, and profit. 	<ul style="list-style-type: none"> • Characteristics of economic concepts
		<ul style="list-style-type: none"> • Understands that people sell goods and/or provide services to earn income. 	<ul style="list-style-type: none"> • Differences between selling products and providing services
		<ul style="list-style-type: none"> • Distinguishes between price and value and gives examples. 	<ul style="list-style-type: none"> • Difference between price and value
		<ul style="list-style-type: none"> • Understands that labor is a human resource that is used to produce goods and services. 	<ul style="list-style-type: none"> • Characteristics of labor
	<ul style="list-style-type: none"> • Economic Issues 	<ul style="list-style-type: none"> • Understands that people's incomes, in part, reflect choices they have made about education, training, skill development, and careers. 	<ul style="list-style-type: none"> • Education, training, skill development
		<ul style="list-style-type: none"> • Understands that more skilled workers are likely to earn higher wages. 	<ul style="list-style-type: none"> • Importance of professional development



Power, Authority, and Civil Ideals

Fourth Grade

Magnetik **Understanding:**

Leaders can change the social, economic, and political direction of a nation.

Magnetik **Question:**

How do we identify a leader?

Global **Issue:**

Abuse of power

Challenge-**Action Question:**

How can I become a good leader?



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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 spelling-sound correspondences for the variant vowel sound /ɔ/. 	<ul style="list-style-type: none"> • Variant vowel ough, o, aw, a, /ɔ/
		<ul style="list-style-type: none"> • Correctly uses homographs. 	<ul style="list-style-type: none"> • Homographs
		<ul style="list-style-type: none"> • Correctly uses homophones. 	<ul style="list-style-type: none"> • Homophones
		<ul style="list-style-type: none"> • Becomes familiar with r-controlled spelling patterns. 	<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"> • Understands and uses adjectives as words that modify and provide characteristics about nouns. 	<ul style="list-style-type: none"> • Adjectives
		<ul style="list-style-type: none"> • Recognizes and uses demonstrative adjectives. 	<ul style="list-style-type: none"> • Demonstrative adjectives
		<ul style="list-style-type: none"> • Uses a range of comparative adjectives. 	<ul style="list-style-type: none"> • Comparative adjectives
		<ul style="list-style-type: none"> • Uses a range of superlative adjectives. 	<ul style="list-style-type: none"> • Superlative adjectives
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that an informational narrative is nonfiction writing with the intention of informing the reader about a specific topic using a narrative style (autobiographies, histories, correspondences, memoirs, news articles) 	<ul style="list-style-type: none"> • Informational text: narrative
	<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 statements that show cause and effect and understands the difference between them. 	<ul style="list-style-type: none"> • Cause and effect
		<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
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<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"> • Participates in conversations and discussions. 	<ul style="list-style-type: none"> • Panel discussion
<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in teams, and teacher-led). 		<ul style="list-style-type: none"> • Social interaction and balanced participation in conversation 	



Knotion Subject	Topic	Learning Outcome	Content
 Physical Science	<ul style="list-style-type: none"> • Motion, Force, and Interactions 	<ul style="list-style-type: none"> • Understands that the motion of an object can be described and measured. • Knows that an object may move in a straight line at constant speed, speed up, slow down, or change direction depending on net force acting on the object. • Predicts the changes when an object experiences a force. • Compares contact and noncontact forces that affect motion of an object. • States Newton's three laws of motion. 	<ul style="list-style-type: none"> • Objects move in many different ways and at varying rates of speed • Different kinds of motion: constant, variable, periodic, circular, and vibrational. • Push or pull, weight, friction • Gravity, magnetism, collision • Newton's three laws of motion



Knotion Subject	Topic	Learning Outcome	Content
 Citizenship Awareness	<ul style="list-style-type: none"> • Government Organization, Laws, and Political Systems. 	<ul style="list-style-type: none"> • Identifies some advantages and disadvantages of using authority. • Identifies and analyzes the characteristics of a leader. • Compares positive and negative leaders and explains the differences and similarities. • Explains the need to limit the power given to a person in a position of authority. • Understands that special events turn common people with outstanding values and attitudes into leaders. 	<ul style="list-style-type: none"> • Importance of authority in a community • Characteristics of a leader • Differences and similarities of different positive and negative leaders • Power control • Characteristics of leadership and leaders
 Historical Awareness	<ul style="list-style-type: none"> • Historical Cultural Heritage 	<ul style="list-style-type: none"> • Identifies negative and positive leaders in history. 	<ul style="list-style-type: none"> • Some famous leaders: Hitler, Mother Theresa, Churchill, Mandela, Ghandi, Lenin, Stalin, De Gaulle



Crisis and Conflict Resolution

Fourth Grade

Magnetik **Understanding:**

Accepting others the way they are is one way to achieve positive relationships.

Magnetik **Question:**

What does it mean to accept people for who they are?

Global **Issue:**

Discrimination and school bullying

Challenge-**Action Question:**

What can I do to prevent school bullying?



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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"> • Determines the meanings of words with the suffixes -ful, -ly, -ion . 	<ul style="list-style-type: none"> • Suffixes: -ful, -ly, -ion
		<ul style="list-style-type: none"> • Determines the meanings of words with the number prefixes. 	<ul style="list-style-type: none"> • Number prefixes
		<ul style="list-style-type: none"> • Reads and forms words that contain consonant final syllables -le and -el. 	<ul style="list-style-type: none"> • Final syllable -el and -le /əl/
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Understands and uses correct pronoun-verb agreement. 	<ul style="list-style-type: none"> • Pronoun-verb agreement
		<ul style="list-style-type: none"> • Uses pronouns and homophones correctly. 	<ul style="list-style-type: none"> • Pronouns and homophones
		<ul style="list-style-type: none"> • Understands and uses subject and object pronouns. 	<ul style="list-style-type: none"> • Types of pronouns (subject and object)
		<ul style="list-style-type: none"> • Understands and uses possessive pronouns. 	<ul style="list-style-type: none"> • Possessive pronouns
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that realistic fiction is 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 mental images that reflect or represent 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"> • Identifies story elements including, setting, characters, and plot. 	<ul style="list-style-type: none"> • Characters, setting, and plot
		<ul style="list-style-type: none"> • Identifies problem and solution as part of story elements. 	<ul style="list-style-type: none"> • Problem and solution
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<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"> • Delivers an oral book report identifying and retelling the most important ideas. 	<ul style="list-style-type: none"> • Book report
		<ul style="list-style-type: none"> • Engages effectively in a range of collaborative discussions (one-on-one, in teams, and teacher-led). 	<ul style="list-style-type: none"> • Social interaction and balanced participation in conversation
		<ul style="list-style-type: none"> • Tells stories from images. 	<ul style="list-style-type: none"> • Stories from images
		<ul style="list-style-type: none"> • Formulates and answers questions to get information about a concrete topic. 	<ul style="list-style-type: none"> • Asking and answering questions



Knotion Subject	Topic	Learning Outcome	Content
 Life Science	<ul style="list-style-type: none"> Organisms' Structures and Processes 	<ul style="list-style-type: none"> Understands the basics of the endocrine system. 	<ul style="list-style-type: none"> Parts and the functions of the endocrine system and how hormones affect emotions during puberty
		<ul style="list-style-type: none"> Names the organs of the urinary system and lists their general functions. 	<ul style="list-style-type: none"> Organs of the urinary system and general functions
	<ul style="list-style-type: none"> Health 	<ul style="list-style-type: none"> Recognizes that teens who are bullied during puberty reveal higher emotional stress. 	<ul style="list-style-type: none"> Mood and mental state of bullied teens judging by signs of anxiety or depression



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"> Describes and explains characteristics of bullying and explains bullying behaviors. 	<ul style="list-style-type: none"> Characteristics of bullying
		<ul style="list-style-type: none"> Recognizes and describes kinds of bullying and examines their effects. 	<ul style="list-style-type: none"> Physical, social, verbal, emotional, and cyberbullying
		<ul style="list-style-type: none"> Identifies strategies to prevent or reduce bullying 	<ul style="list-style-type: none"> Strategies to reduce and prevent bullying
		<ul style="list-style-type: none"> Identifies ways that bullying makes people feel and demonstrates what to say and do when witnessing or dealing with bullying. 	<ul style="list-style-type: none"> What to do or say when witnessing bullying
		<ul style="list-style-type: none"> Recognizes strategies to handle or overcome bullies. 	<ul style="list-style-type: none"> Strategies to overcome bullying



Environment and Sustainability

Fourth Grade

Magnetik **Understanding:**
Water is a valuable, limited natural resource.

Magnetik **Question:**
How do human actions impact the water cycle?

Global **Issue:**
Lack of access to fresh water

Challenge-**Action Question:**
How can I reduce water pollution and water waste?



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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 whether words contain a prefix or a suffix. 	<ul style="list-style-type: none"> • Prefixes super-, semi-, and suffixes -able, -ous.
		<ul style="list-style-type: none"> • Determines the meanings of Greek and Latin roots. 	<ul style="list-style-type: none"> • Greek and Latin roots
		<ul style="list-style-type: none"> • Determines the meaning of Latin prefixes. 	<ul style="list-style-type: none"> • Latin prefixes
		<ul style="list-style-type: none"> • Correctly spells frequently misspelled words. 	<ul style="list-style-type: none"> • Frequently misspelled words
	<ul style="list-style-type: none"> • Structure and Function 	<ul style="list-style-type: none"> • Uses a range of prepositions. 	<ul style="list-style-type: none"> • Prepositions
		<ul style="list-style-type: none"> • Identifies and forms prepositional phrases. 	<ul style="list-style-type: none"> • Prepositional phrases
		<ul style="list-style-type: none"> • Identifies and uses definite and indefinite articles. 	<ul style="list-style-type: none"> • Articles
		<ul style="list-style-type: none"> • Identifies actions that are expressed with the verbs make and do. 	<ul style="list-style-type: none"> • Make or do
 Reading Skills	<ul style="list-style-type: none"> • Genre 	<ul style="list-style-type: none"> • Understands that a lyric is a verse poem that can be sung to the accompaniment of a musical instrument and that expresses intense emotion. 	<ul style="list-style-type: none"> • Lyric poetry
		<ul style="list-style-type: none"> • Understands that a haiku is a Japanese poem that evokes images of the natural world in seventeen syllables distributed in three lines of five, seven, and five. 	<ul style="list-style-type: none"> • Haiku
	<ul style="list-style-type: none"> • Strategies and Skills 	<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"> • Creates mental images that reflect or represent the ideas in the text. 	<ul style="list-style-type: none"> • Visualizing
		<ul style="list-style-type: none"> • Makes connections to real life experiences, to real events, and to other texts to understand a text better. 	<ul style="list-style-type: none"> • Making connections
		<ul style="list-style-type: none"> • Identifies the author's purpose (example: to inform, entertain, or explain) in text. 	<ul style="list-style-type: none"> • Author's purpose
 Writing Workshop	<ul style="list-style-type: none"> • Type of Writing 	<ul style="list-style-type: none"> • Writes a research report that defines the topic, gathers information, determines credibility, and 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"> • Delivers a persuasive speech supporting spoken ideas with details and examples and includes an effective introduction and conclusion. 	<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 teams, and teacher-led). 		<ul style="list-style-type: none"> • Social interaction and balanced participation in conversation 	



Knotion Subject	Topic	Learning Outcome	Content
 Earth Science	<ul style="list-style-type: none"> • Earth and Human Activity 	<ul style="list-style-type: none"> • Describes the various forms of fresh water. 	<ul style="list-style-type: none"> • Evaporation, transpiration, precipitation, runoff, surface water, groundwater
		<ul style="list-style-type: none"> • Explains the effects of contaminants in the water supply, and how the survival of living things depends on clean water and its conservation. 	<ul style="list-style-type: none"> • Effect of water pollution on living things; how to make water drinkable
		<ul style="list-style-type: none"> • Analyzes problems of water quality and proposes solutions to address water pollution. 	<ul style="list-style-type: none"> • Household chemicals that contaminate water



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"> • Understands the need for using water rationally and the consequences if it's wasted. 	<ul style="list-style-type: none"> • Consequences of water usage
		<ul style="list-style-type: none"> • Describes the different ways in which water is used and the quantities used for various purposes. 	<ul style="list-style-type: none"> • Water usage
		<ul style="list-style-type: none"> • Recognizes that resource availability has guided the development of human society. 	<ul style="list-style-type: none"> • How factors (availability of natural resources, occurrence of natural hazards, and changes in climate) influence human activity