Ganado Unified School District Science -Kindergarten

PACING Guide SY 2015-2016

Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
Quarter 1 Life Science -Unit A: Plants	Stand 4: Life Science	THE STREET		
Quarter 1 Life Science -Unit A: Plants Lesson 1: Parts of Plants Resources: Flipbook p. 7 Leveled Readers: Plant Parts Unit A Literature Big Book Science Resource Book. Photo Sorting Cards 1-10 A to Z Activity Book pp. 8-9, 14-15 Science on the Go pp. 1-4 Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	Concept 2: Life Cycles Understand the life cycles of plants and animals. PO. 1. Describe that most plants and animals will grow to physically resemble their parents.	Demonstrate the Life Cycle of a plant. What parts help plants grow?	Students will be able to: Understand that plants are organisms with parts that help them get what they need to and mature	Root stem leaf seed
Lesson 2: What Plants Need Resources:	Stand 4: Life Science Concept 3: Organisms and Environments	What do plants need?	Recognize that a plant is an organism that needs air, water, light and soil to survive.	Air light water

	T	T		
Flipbook pp. 8-9	Understand the relationships			soil
Leveled Readers:	among various organisms and			
Where Do Plants Live?	their environment.			
<u>Plants Grow</u>	PO.1. Identify some plants and			
Unit A Literature Big Book	animals that exist in the local			
Science Resource Book p.	environment.	CO-800000		
28	PO.2. Identify that plants and	\triangle		
Photo Sorting Cards 1-10	animals need the following to			
A to Z Activity Book pp. 8-9,	grow and survive:			
14-15	• F <mark>ood</mark>	THERMORE,		
Science on the Go pp. 5-8	• Water		1.1	
Technology:	• Air			
www.macmillanmh.com	• Space	2		
www.bankstreet.edu	- C	MANUAL PRIME		
www.timeforkids.com	PO. 3. Describe changes	aminore Actions		pr.
	observed in a small system	4	AREER SO	
	(e.g., ant farm, plant terrarium,			
	aquarium,)		1111	
Lesson 3:	Stand 4: Life Science	How do plants	Recognize that plants are	Seed, seedling, fruit,
How Plants Grow	Concept 3: Organisms and	change as they	organisms that grow and change.	flower
Resources:	Environments	grow?		
Flipbook pp. 10. S2	Understand the relationships	ELF & SOCIAL	1110	
Leveled Readers:	among various organisms and	EMARENESS		
Small Plants, Tall Plants	their environment.	EN-1-6-46-2-2	A STATE OF THE STA	
Unit A Literature Big Book	PO.1. Identify some plants and		1000	
Science Resource Book. P.	animals that exist in the local			
29	environment.			
1 - 1				
Photo Sorting Cards 1-10	PO.2. Identify that plants and			
Photo Sorting Cards 1-10 A to Z Activity Book pp. 8-9	PO.2. Identify that plants and animals need the following to			
A to Z Activity Book pp. 8-9	•			
A to Z Activity Book pp. 8-9 Science on the Go pp. 9-12	animals need the following to			
A to Z Activity Book pp. 8-9 Science on the Go pp. 9-12 Technology:	animals need the following to grow and survive:			
A to Z Activity Book pp. 8-9 Science on the Go pp. 9-12 Technology: www.macmillanmh.com	animals need the following to grow and survive: • Food			
A to Z Activity Book pp. 8-9 Science on the Go pp. 9-12 Technology:	animals need the following to grow and survive: • Food • Water			

	PO. 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium,)			
Lesson 4: Look at Leaves and Flowers Resources: Flipbook pp. 11-12, S3 Leveled Readers: From Seed to Sunflower Unit A Literature Big Book: Time for Kids Science Resource Book pp. 30 Photo Sorting Cards 1-10 Floor Puzzle: Pond Life Science on the Go pp. 1-4 Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	PO.2. Identify that plants and animals need the following to grow and survive: • Food • Water • Air • Space PO. 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium,)	How can plants look different?	Recognize that plants can be identified by their parts.	Leaf, leaves, flower, flowers
Lesson 5 Plants We Use Resources: Flipbook pp. 13 Leveled Readers: All Kinds of Plants Unit A Literature Big Book	Stand 4: Life Science Concept 3: Organisms and Environments Understand the relationships among various organisms and their environment. PO.1. Identify some plants and animals that exist in the local	What plants can we use?	Identify and explore plants that we eat and the foods that come from different plants.	Fruits, vegetables

Science Resource Book pp. 31 Photo Sorting Cards 1-10 A to Z Activity Book pp. 8-9, 14-15 Science on the Go pp. 15-18 Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	environment. PO.2. Identify that plants and animals need the following to grow and survive: • Food • Water • Air • Space PO. 3. Describe changes observed in a small system (e.g., ant farm, plant terrarium, aquarium,)	THENRIANS.		
Quarter 2	Strand 4: Life Science	MANUFACTOR /		
Life Science Unit B: What Are Animals	RESPECT N		MISSE	
Lesson 1: Where do animals live? Flipbook, pp. 15 Unit B Literature Big Book Science Resource Book pp. 32 Photo Sorting Cards 11-20 A to Z Activity Book pp. 20-21, 52-53 Leveled Readers: What Kind of Animal Are You? Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	Where do animals live?	Understand the basic definition of an animal and explore animals in your neighborhood.	Animal Habitat

Lesson 2: What Animals Need? Flipbook, pp. 16-17, S4 Unit B Literature Big Book Science Resource Book pp. 33 Photo Sorting Cards 11-20 A to Z Activity Book pp. 12- 13, 18-19	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	What Animals Need?	Recognize that animals are organisms that need air, water, food and shelter to stay alive.	Air Water Shelter Food Space
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	(AA so	MANUSCRION		
Lesson 3: How can bugs alike? Flipbook, pp. 18 Science Resource Book pp. 34 Photo Sorting Cards 11-20 A to Z Activity Book pp. 2-3, 18-19	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	How can Bugs Alike?	Learn about bugs, their attributes and where they live.	Insect
Lesson 4: Where do reptiles live? Flipbook, pp. 19 Unit B Literature Big Book Science Resource Book pp. 35 Photo Sorting Cards 11-20 Leveled Readers? Our Desert Home Technology:	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	Where do Reptiles?	Understand the basic definition of a reptile, its attributes, and where it lives.	Mammal Reptile Lizard Snake

www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				
Lesson 5: How can animals move? Flipbook, pp. 20-21, S5 Unit B Literature Big Book Science Resource Book pp. 36 Photo Sorting Cards 11-20 Leveled Reader: Animals on the Move	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	How can Animals Move?	Learn about birds, fish, and other water animals.	Wings Fins Reef
Technology: <u>www.macmillanmh.com</u> <u>www.bankstreet.edu</u> <u>www.timeforkids.com</u>	RESPECT N REVERENCE	MWINICKTION (MINERA	
Lesson 6: How animals stay safe? Flipbook, pp. 22 Unit B Literature Big Book: Time for Kids Science Resource Book pp. 37 Photo Sorting Cards 11-20 A to Z Activity Book pp. 16-17	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	How Animals Stay Safe?	Explore how animals have adapted to their environments.	Skin Fur Scales Shell Feathers
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				

Lesson 7: How do animals change as they grow? Flipbook, pp. 23-24 Unit B Literature Big Book Science Resource Book pp. 38 Photo Sorting Cards 11-20 A to Z Activity Book pp. 10-11, 24-25, 50-51 Leveled Reader: Animals Grow Technology: www.macmillanmh.com	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	How do Animals Change as they Grow?	Understand how animals grow and change as they mature.	Grow Change
www.bankstreet.edu www.timeforkids.com	RESPECTA		MHEER	
Lesson 8: What do we get from animals? Flipbook, pp. 25 Unit B Literature Big Book Science Resource Book pp. 39 Photo Sorting Cards 11-20 Leveled Reader: Good Morning Technology: www.macmillanmh.com www.bankstreet.edu	Concept 1: Characteristic of Organisms Understand that basic structures in plants and animals serve a function. PO1. Distinguish between living things and nonliving things.	What do we get from Animals?	Explore relationships between people and animals.	Beekeeper Farmer
www.timeforkids.com		-7		
Quarter 3 Earth And Space Science Unit C: Our Earth, Our Home	Strand 6: Earth and Space Science			

Lesson 1: Soil Under Your Feet Flipbook pp. 29 Unit C Literature Big Book Leveled Reader: What's in the Soil? Science Resource Book, pp. 40 A to Z Activity Book, pp. 8-9 Science on the Go, pp. 51- 54	Concept 1: Properties of Earth Materials Identify the basic properties of Earth materials. PO1. Identify rocks, soil, and water as basic Earth materials.	What uses soil?	Explore the composition and uses of soil.	Soil Dirt Earth
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	RESPECT N	MANUALCETION /	MHSER .	
Lesson 2: Rocks Flipbook pp. Unit C Literature Big Book Leveled Reader: Rocks Science Resource Book, pp. 41 A to Z Activity Book, pp. 36- 37 Science on the Go, pp. 55- 56	Concept 1: Properties of Earth Materials Identify the basic properties of Earth materials. PO1. Identify rocks, soil, and water as basic Earth materials.	How can you describe rocks?	Investigate the characteristics of different rocks.	Rocks Pebbles Sand
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				

Lesson 3: Land High and Low Flipbook pp. 31-32, S6 Unit C Literature Big Book	PO2. Compare physical properties (e,g,. color, texture, capacity to retain water) of basic Earth materials.	How can land be different?	Learn characteristics of geographic features that are high and low.	Mountains Valleys Plains Canyons
Leveled Readers: America, the Beautiful and Land High and Low Science Resource Book, pp. 42 Science Songs CD Photo Sorting Cards 21-30 Floor Puzzle: Landforms		THENDUNG		
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	RESPECT N REVERFACE	MANUALCETION /	MINER I	
Lesson 4: Water All Around Flipbook pp. 33, S7 Unit C Literature Big Book Leveled Reader: Our Land Science Resource Book, pp. 43	PO1. Identify rocks, soil, and water as basic Earth materials.	What are different bodies of water?	Learn characteristics of rivers, streams, lakes, and oceans and identify water as a natural resource.	River Stream Lake Ocean
Science Songs CD Photo sorting 21-30 A to Z Activity Book, pp. 46-47 Technology:				
www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				

Lesson 5: Earth's Resources Flipbook pp. 34-35 Science Resource Book, pp. 44 A to Z Activity Book, pp. 46- 47 Science on the Go, pp. 65- 68	PO2. Compare physical properties (e.g., color, texture, capacity to retain water) of basic Earth materials. PO3. Classify a variety of objects as being natural or manmade.	What resources from Earth do we use?	Learn about Earth's natural resources that are used in everyday life and that resources can be conserved.	Resource Firefighter
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	/AA	A SALVANO STATE OF	44	
Lesson 6: Recycle, Reuse Flipbook pp. 36 Unit C Literature Big Book: Time for Kids Leveled Reader: Recycle, Reduce, Reuse! Science Resource Book, pp. 45 Science on the Go, pp. 69-70	PO3. Classify a variety of objects as being natural or manmade. PO4. Identify ways some natural or man-made materials can be reused or recycled.	How can we take care of Earth?	Learn different reasons for and ways of recycling.	Recycle Reduce Reuse
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				
Quarter 4 Unit D How do the weather and the sky change?	Strand 6: Earth and space Science	What on Earth?		

Lesson 1:	Concept 3: Changes in the earth	What are some	Recognize the characteristics of	Rainy
Exploring Weather	and Sky	different kinds of	different kinds of weather, such	Windy
Flipbook, pp. 38-39	Understand characteristics of	weather?	as win, sun, rain, and snow.	Snowy
Unit C Literature Big Book:	weather conditions and climate.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ws (1111, 5011), 10111, 0110 5115 (11	Sunny
Time for Kinds	PO1. Identify the following			
Leveled Readers: What is	aspects of weather:			
the Weather? And What	Temperature, wind,	A 2		
Will I Wear Today?	precipitation, storms.	1-1-1		
Science Resource Book, pp	1	1.1		
46	//	THENDUNG:		
Photo Song Cards 31-40	//		7.7	
A to Z Activity Book, pp. 28-				
29			$\triangle \triangle$	
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Technology:		NWINICKTION /	- 22	De la companya della companya della companya de la companya della
www.macmillanmh.com	RESPECTA		MHSER	
www.bankstreet.edu	REVERENCE		11 11 11 11 11	
www.timeforkids.com			1111	
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Lesson 2:	PO2. Describe observable	How can clouds be	Describe clouds and how they	Cloud
Look at Clouds	changes in weather.	different?	change.	
Flipbook, pp. 40	PO3. Give examples of how the	ELF & BOCIAL	11111	
Unit C Literature Big Book:	weather affects people's daily	EWARENESS		
Leveled Readers:	activities	Blake billiakton	1. 1000	
Clouds	1		-000	
Science on the Go, pp. 75-				
76				
Science Resource Book, pp.				
47			2	
Floor Puzzle: Landforms				
Technology:	199			
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Lesson 3: The Seasons Flipbook, pp. 41, G1 Unit D Literature Big Book Leveled Reader: A Favorite Season and Seasons Science Resource Book, pp. 48 A to z Activity Book, pp. 28- 29 Science on the Go, pp. 77-	PO.2 Describe observable changes in weather. PO3. Give examples of how the weather affects people's daily activities.	What happens when the seasons change?	Identify what occurs in nature and what people do in different seasons.	Winter Sprung Summer Fall
78 Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	RESPECTS	MANUAL CATION	NH66 R	
Lesson 4: Night and Day Flipbook, pp. 42-43, S8 Unit Literature Big Book Leveled Reader: The Night Sky Science Resource Book, pp. 49 Science Songs CD Photo Sorting Cards 31-40 A to Z Activity, Cards pp. Science on the Go, pp. 79- 82	PO2. Describe observable changes in weather.	How does the sky change from night to day?	Recognize changes that occur in the sky from day to night and night to day.	Day Night Moon Sun Stars Patterns
Technology: www.macmillanmh.com				

www.bankstreet.edu www.timeforkids.com				
Lesson 5: Sun and Shadows Flipbook, pp. 44, S9 Science Resource Book, pp. 50 Science Songs CD A to Z Activity Book, pp. 38- 39. 42-43 Science on the Go, pp. 83- 86 Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com	PO.2 Describe observable changes in weather. PO3. Give examples of how the weather affects people's daily activities.	How does the Sun make shadows?	Recognize that the Sun creates shadows and appears to move through the sky.	Shadows Shade Heat
Quarter 4 Unit E: Exploring Matter	Strand 5: Physical Science	What is matter?	11	
Lesson 1: Paper and Cloth Flipbook, pp. 48 Unit Literature Big Book: Time for Kids Leveled Reader: Soft or Hard? Science on the Go, pp. 87- 90 Science Resource Book, pp. 51 Photo Sorting Cards 41-50 A to Z Activity Book, pp. 32- 33, 48-49	Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties. PO1. Identify the following observable properties of objects using the senses: Shape, texture, size, color. PO2. Compare objects by the following observable properties: Size, color, type of material.	How do we use paper and cloth?	Identify and explore the ways we can use and change paper and cloth.	Bend Fold Tear Cut

Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com				
Lesson 2: Wood and Metal Flipbook, pp. 49 Unit Literature Big Book: Leveled Reader: Working with Wood Science on the Go, pp. 91- 94 Science Resource Book, pp. 52 Photo Sorting Cards 41-50 Floor Puzzle: Workbench	Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties. PO1. Identify the following observable properties of objects using the senses: Shape, texture, size, color. PO2. Compare objects by the following observable properties: Size, color, type of material.	How can we change wood and metal?	Identify and explore the ways we can use and change natural resources, such as wood and metal.	Wood Metal
Technology: www.macmillanmh.com www.bankstreet.edu www.timeforkids.com		ELF S BOCIAL		
Lesson 3: Working with Clay Flipbook, pp. 50 Unit E Literature Big Book: Leveled Reader:	PO1. Identify the following observable properties of objects using the senses: Shape, texture, size, color.	What can we make out of clay?	Identify clay as a natural resource that can be manipulated to make things.	Clay Kiln Fire
Made from Clay Science Resource Book, pp. 53 Science on the Go, pp. 95- 96 www.macmillanmh.com	PO2. Compare objects by the following observable properties: Size, color, type of material. Concept 2: Position and Motion			

www.bankstreet.edu www.timeforkids.com	of Objects. Understand spatial relationships and the way objects move. PO1. Describe spatial relationship (i.e., above, below, next to, left, right, middle, center) of objects.			
Lesson 4: Investigate Water Flipbook, pp. 51-52, S10 Unit E Literature Big Book Leveled Reader: Melting Snow, I Like Ice, Matter Changes	/AA	How can water change?	Identify and explore the properties and changing states of water and investigate objects that sink and float in water.	Solid Liquid Gas
Science on the Go, pp. 97- 100 Science Resource Book, pp. 54 Science Songs CD A to Z Activity Book, pp. 4- 5, 46-47 Technology:	RESPECT A REVERENCE	ELF S BOCIAL	Afficial	
Unit F	Strand 5: Physical Science	What cause thing to move?	A STATE OF THE PARTY OF THE PAR	
Lesson 1 Wheels Flipbook, pp. 54, S11 Unit F Literature Big Book: Time for Kids Leveled Reader: Working with Clay Science Songs CD	Concept 3: Energy and Magnetism Investigate different forms of energy. PO1. Investigate how applied force (push and pull) can make things move.	How do wheels help us?	Recognize that wheels affect speed and motion and make moving easier.	Wheel Pulley

Science on the Go, pp. 101- 104 Science Resource Book, pp. 55 A to Z Activity Book, pp. 40- 41 Photo Sorting Cards 51-60				
Lesson 2 How Things Move Flipbook, pp. 53, 55-56 Unit F Literature Big Book Leveled Readers: Toys That Move and Water Moves Science on the Go, pp. 105-	PO1. Investigate how applied force (push and pull) can make things move.	What makes things move?	Explore ways objects move and forces that cause movement.	Slide Roll Push Force
106 Science Resource Book, pp. 56 Floor Puzzle: Workbench	RESPECTA		KHEED	
Lesson 3 Ups and Downs Flipbook, pp. 57 Science Resource Book, pp. 57 Science on the Go, pp. 107-108	PO1. Investigate how applied force (push and pull) can make things move.	How do we stay on the ground?	Understand that certain objects, like the Sun and the Moon, stay in the sky, while others, like an airplane, are in the sky but return to Earth.	Gravity
Lesson 4 Sounds All Around Flipbook, pp. 58, S12 Unit F Literature Big Book Leveled Reader: Making Sounds Science Songs CD Science Resource Book, pp. 58		How are sounds made?	Describe sounds and understand how they are made.	Vibration Loud Soft

A to Z Activity Book, pp. 34-35 Science on the Go, pp. 109- 112				
Lesson 5 Magnets Flipbook, pp. 59 Unit F Literature Big Book Leveled Reader: What Can a Magnet Do? Science Resource Book, pp. 59 A to Z Activity Book, pp. 26- 27 Science on the Go, pp. 113-114	PO2. Investigate how forces can make things move without touching them (e.g., magnets, static electricity)	What objects will magnets move?	Recognize that magnets can be used to make some objects move without being touched	Magnet
	115 4 5 115 115 115		110	

The Inquiry Process standards will be used within each lesson:

Strand 1: Inquiry Process

Inquiry Process establishes the basic for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses: Observe, ask questions and make predictions.

PO1. Observe common objects using multiple senses.

PO2. Ask questions based on experiences with objects, organisms, and events in the environment.

PO3. Predict results of an investigation based on life, physical, and Earth and space science (e.g., the five senses, changes in weather).

Concept 2: Scientific Testing (Investigating and Modeling) Participant in planning and conducting investigations, and recording data.

PO1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.

PO2. Participate in guided investigations in life, physical, and Earth and space sciences.

Concept 3: Analysis and Conclusions: Organize and analyze data; compare to predictions.

PO1. Organize (e.g., compare, classify, and sequence) objects, organisms, and events according to various characteristics.

PO2. Compare objects according to their measurable characteristics (e.g., longer/shorter, light/heavier).

Concept 4: Communication: Communicate results of investigations.

PO1. Communicate observations with pictographs, pictures, and/or words.

PO2. Communicate with other groups to describe the results of an investigation.

Ganado Unified School District (Science/Kindergarten)

PACING Guide SY 2014-2015

Timeline & Resources	AZ College and Career	Essential Question	Learning Goal	Vocabulary
	Readiness Standard	(HESS Matrix)		(Content/Academic)

