Office of Larry E. Reider Kern County Superintendent of Schools Advocates for Children

Fourth Grade—Macmillan/McGraw-Hill

The GEMS guides listed below are suggested supplements to the Macmillan/McGraw-Hill curriculum. Teachers are encouraged to select the lessons from each guide they find most beneficial to their students' needs. Most guides have kits with hands-on materials available for check-out, at no charge, from KCSOS. Contact Kathy Hill at kahill@kern.org or 661.636.4640.

GEMS uses the strategies of hands-on examination and discovery throughout its program. Therefore, we have not listed the California State Standards correlation of Investigation and Exploration, Standard 6, as one or more strands will be found as a basic component of every GEMS guide.

Chapter/Lesson	TE	4 th grade	GEMS Guide			
	pages	standard	Bold type represents a GEMS unit which addresses all standards in that standard set for the respective strand.			
	4 th (GradeLIF	E SCIENCE			
Chapter 1: Living Th	ings Need Er					
L#1: Plants and	24-33	4 LS 2.a	Aquatic Habitats			
Sunlight			Terrarium Habitats			
L#2: Food Chains	36-47	4 LS 2.a,	Aquatic Habitats			
		2.b, 2.c	On Sandy Shores (2.b, 2.c)			
			Terrarium Habitats			
L#3: Food Webs	50-59	4 LS 2.b	Aquatic Habitats			
			On Sandy Shores			
			Terrarium Habitats			
L#4: Micro-	62-71	4 LS 2.c,	Aquatic Habitats			
organisms		3.d	On Sandy Shores (2.c)			
			Terrarium Habitats			
Chapter 2: Living Things and Their Environment						
L#1: Ecosystems	82-91	4 LS 3.a	Aquatic Habitats			
			On Sandy Shores			
			Schoolyard Ecology			
			Terrarium Habitats			
L#2: Living Things	94-101	4 LS 3.c	Aquatic Habitats			
Need Each Other						
L#3: Changes in	104-111	4 LS 3.b	Aquatic Habitats			
Ecosystems			Moons of Jupiter			
L#4: Adaptations	114-123		On Sandy Shores			
			Terrarium Habitats			

	₄th ~								
4 th GradeEARTH SCIENCE									
Chapter 3: Rocks and	d Minerals								
L#1: Minerals: The	138-147	4 ES 4.b	Stories in Stone						
Building Blocks of									
Rocks									
L#2: Igneous Rocks	150-157	4 ES 4.a	Stories in Stone						
L#3: Sedimentary	160-167	. 22							
Rocks	100 107								
L#4: Metamorphic	170-181								
Rocks	170 101								
Chapter 4: Slow Cha	nges on Fart	<u> </u>	1						
L#1: Weathering	192-199	4 ES 5.b	On Sandy Shores						
Lari. Weathering	1,72-1,7,7	T LO J.U	Stories in Stone						
L#2: Erosion and	202-209	4 ES 5.a,	On Sandy Shores						
Deposition	<u> </u>	4 ES 3.a, 5.c	Stories in Stone						
L#3: Landforms:	212-223	3.0	Stories in Stone						
	212-223								
Changing Over Time	ngag an Earth	<u> </u>							
Chapter 5: Fast Char L#1: Landslides			O. C						
	236-243	4 ES 5.a,	On Sandy Shores						
L#2: Earthquakes	246-255		Stories in Stone						
L#3: Volcanoes	260-269								
	4 th Grae	dePHYSI	ICAL SCIENCE						
Chapter 6: Electricity	V								
L#1: Static	284-293	4 PS 1.e	No GEMS guides were found to align with standard						
Electricity									
L#2: Electric	296-305	4 PS 1.a	Electric Circuits						
Circuits									
L#3: Using	308-315	4 PS 1.g	Electric Circuits						
Electrical Energy									
Chapter 7: Magnetis	m	1	1						
L#1: Magnets	328-337	4 PS 1.b,	No GEMS guides were found to align with standards						
Za i. magneto	320 33 7	1.f	5						
L#2: Electromagnets	340-347	4 PS 1.c,	No GEMS guides were found to align with standards						
En 2. Electromagnets	J-10-J-1	1.d	and the second s						
		1.4							
L#3: Magnets in	350-357	4 PS 1.d	No GEMS guides were found to align with standard						
Motion	330 - 337	4 F S 1.U	1.0 SEMO Baides were round to ungil with standard						
IVIUUII									
		l							

4 th GradeINVESTIGATION AND EXPERIMENTATION						

While the guides listed below do not address specific 4th grade standards in Life, Earth, or Physical Science, they do meet standards within the Investigation and Experimentation standard set.

Bubble Festival
Crime Lab Chemistry
Fingerprinting
Microscopic Explorations
Mystery Festival
Of Cabbages and Chemistry
Oobleck