

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

Second 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 4, as one or more strands will be found as a basic component of every GEMS guide.

Chapter/Lesson	TE pages	2 nd grade standard	GEMS Guide Bold type represents a GEMS unit which addresses all standards in that standard set for the respective strand.
2nd grade--LIFE SCIENCE			
Chapter 1: Plant Life Cycles			
L#1: Plants and Their Parts	24-33	2 LS 2.f	No GEMS guides were found to align with standard
L#2: Flowers and Fruits	34-43		
L#3: Plants Grow and Change	44-51	2 LS 2.a	<i>Aquatic Habitats</i> <i>Buzzing a Hive</i> <i>Elephants and Their Young</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Mother Opossum and Her Babies</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Terrarium Habitats</i>
L#4: Plants and Their Environments	52-59	2 LS 2.e	<i>Terrarium Habitats</i>
Chapter 2: Animal Life Cycles			
L#1: Kinds of Animals	74-83	2 LS 2.b	<i>Aquatic Habitats</i> <i>Buzzing a Hive</i> <i>Elephants and Their Young</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Investigating Artifacts</i> <i>Mother Opossum and Her Babies</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Terrarium Habitats</i>

L#2: Mammals L#3: Animals from Eggs	84-91 92-101	2 LS 2.a	<i>Aquatic Habitats</i> <i>Buzzing a Hive</i> <i>Eggs Eggs Everywhere</i> (may provide support for prior knowledge and vocabulary development) <i>Elephants and Their Young</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Mother Opossum and Her Babies</i> (PK-1 guide. Some activities can be adapted to 2 nd grade)
L#4: Animal Traits	102-111	2 LS 2.d	<i>Aquatic Habitats</i> <i>Buzzing a Hive</i> <i>Elephants and Their Young</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Terrarium Habitats</i>
**California Standard 2 LS 2.c is addressed in McMillan/McGraw-Hill Teacher Resource Options found in the Teacher's Edition. The listed GEMS guides will also help address this standard.			<i>Aquatic Habitats</i> <i>Buzzing a Hive</i> <i>Elephants and Their Young</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Mother Opossum and Her Babies</i> (PK-1 guide. Some activities can be adapted to 2 nd grade) <i>Terrarium Habitats</i>
2nd grade--EARTH SCIENCE			
Chapter 3: Earth's Materials			
L#1: Rocks	130-139	2 ES 3.a	No GEMS guides were found to align with standard
L#2: Rocks Change	140-149	2 ES 3.b	<i>On Sandy Shores</i>
L#3: Soil	150-159	2 ES 3.c	<i>On Sandy Shores</i> <i>Terrarium Habitats</i>
Chapter 4: Earth's Past			
L#1: Fossils L#2: Finding Clues in Fossils L#3: Fossils of California	174-183 184-191 192-199	2 ES 3.d	No GEMS guides were found to align with standard
Chapter 5: Earth's Resources			
L#1: Natural Resources L#2: Plant and Animal Resources L#3: Resources of California	214-223 224-233 234-241	2 ES 3.e	No GEMS guides were found to align with standard

2nd grade--PHYSICAL SCIENCE			
Chapter 6: Objects in Motion			
L#1: Position	260-267	2 PS 1.a	<i>Bubble Festival</i> <i>Investigating Artifacts</i> <i>Mystery Festival (Grade 2-3 Level)</i> <i>On Sandy Shores</i>
L#2: Motion	268-275	2 PS 1.b	<i>Bubble Festival</i> <i>Eggs Eggs Everywhere</i> <i>Investigating Artifacts</i> <i>On Sandy Shores</i>
L#3: Pushes and Pulls	276-283	2 PS 1. c	No GEMS guides were found to align with standard
L#4: Changing Motion	284-291		
Chapter 7: Forces at Work			
L#1: Tools and Machines	306-313	2 PS 1.d	No GEMS guides were found to align with standard
L#2: Gravity	314-321	2 PS 1.e	No GEMS guides were found to align with standard
L#3: Magnets Push, Magnets Pull	322-329	2 PS 1.f	<i>Sifting Through Science (Activity 2)</i>
L#4: Sound	330-339	2 PS 1.g	No GEMS guides were found to align with standard
2nd grade--INVESTIGATION AND EXPERIMENTATION			
While the guides listed below do not address specific 2 nd grade standards in Life, Earth, or Physical Science, they do meet standards within the Investigation and Experimentation standard set.			
<i>Bubble Festival</i> <i>Involving Dissolving</i> <i>Liquid Explorations</i> <i>Matter: Solids, Liquids, & Gases</i> <i>Secret Formulas</i>			