



**RECOMMENDED STANDARDS-BASED SCIENCE RESOURCES
SUPPORTING THE GREAT SOUTHERN CALIFORNIA SHAKEOUT**

Standards Correlations

Grade Level	Standard	Recommended Reading/Activities
4	Earth Science 4a: Students know how to differentiate among igneous, sedimentary, and metamorphic rocks by referring to their properties and methods of formation (the rock cycle).	<ul style="list-style-type: none"> • Delta/FOSS- Gr. 4- Earth Materials • Harcourt CA Science, Gr. 4, SE, p 288-299 • Houghton Mifflin CA Science, Gr. 4, SE, p 174-191 • Macmillan/McGraw-Hill, CA Science, Gr. 4, SE, p 150-181 • Scott Foresman CA Science, Gr. 4, SE, p 208-217
4	Earth Science 5a: Students know some changes in the earth are due to slow processes, such as erosion, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.	<ul style="list-style-type: none"> • Delta/FOSS- Gr. 4- Earth Materials • Harcourt CA Science, Gr. 4, SE, p 304-311 • Houghton Mifflin CA Science, Gr. 4, SE, p 194-205 • Macmillan/McGraw-Hill, CA Science, Gr. 4, SE, p 246-255 • Scott Foresman CA Science, Gr. 4, SE, p 250-253
6	Standard Set 1a- Plate Tectonics and Earth's Structure: Students know evidence of plate tectonics is derived from the fit of the continents; the location of earthquakes, volcanoes, and mid-ocean ridges; and the distribution of fossils, rock types, and ancient climatic zones.	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 8, 9, 10 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 4 • Holt California Earth Science- Ch. 6, 7, 8 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 268-277 • McDougal Littell Earth Science- Ch. 8, 9, 10 • Prentice Hall, Focus on Earth Science, Ch. 4 • Scott Foresman CA Focus on Earth Science, Gr.6, SE, p 144-148
6	Standard Set 1d- Plate Tectonics and Earth's Structure: Students know that earthquakes are sudden motions along breaks in the crust called faults and that volcanoes and fissures are located where magma reaches the surface.	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 8, 9, 10 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 5, 6, 7 • Holt California Earth Science- Ch. 6, 7, 8 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 296-305 • McDougal Littell Earth Science- Ch. 10 • Prentice Hall, Focus on Earth Science, Ch. 5, 6 • Scott Foresman CA Focus on Earth Science, Gr. 6, SE, p 181-185
6	Standard Set 1e- Plate Tectonics and Earth's Structure: Students know major geologic events, such as earthquakes, volcanic eruptions, and mountain building, result from plate motions.	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 8, 9, 10 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 5, 6, 7 • Holt California Earth Science- Ch. 6, 7, 8 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 308-321 • McDougal Littell Earth Science- Ch. 8, 9, 10 • Prentice Hall, Focus on Earth Science, Ch. 5, 6 • Scott Foresman CA Focus on Earth Science, Gr.6, SE, p 174-180
6	Standard Set 1f- Plate Tectonics and Earth's Structure: Students know how to explain major features of California geology (including mountains, faults, volcanoes) in terms of plate tectonics.	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 8, 9, 10 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 5, 7, 8 • Holt California Earth Science- Ch. 6, 7, 8 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 324-331 • McDougal Littell Earth Science- Ch. 8, 9, 10 • Prentice Hall, Focus on Earth Science, Ch. 6 • Scott Foresman CA Focus on Earth Science, Gr.6, SE, p 174-180
6	Standard Set 1g- Plate Tectonics and Earth's Structure: Students know how to determine the epicenter of an earthquake and know that the effects of an earthquake on any region vary, depending on the size of the earthquake, the distance of the region from the epicenter, the local geology, and the type of construction in the region.	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 8, 9, 10 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 6 • Holt California Earth Science- 6, 7, 8 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 296-305 • McDougal Littell Earth Science- Ch. 9 • Prentice Hall, Focus on Earth Science, Ch. 5 • Scott Foresman CA Focus on Earth Science, Gr.6, SE, p 190-195

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Standards Correlations (continued)

6	<p>Standard Set 2d- Shaping Earth's Surface: Students know earthquakes, volcanic eruptions, landslides, and floods change human and wildlife habitats.</p>	<ul style="list-style-type: none"> • CPO Focus on Earth Science- Ch. 13 • Delta/FOSS- Gr. 6- Landforms • Glencoe McGraw Hill- Focus on Earth Science, Ch. 6, 7, 8 • Holt California Earth Science- Ch. 7, 8, 10, 11 • It's About Time: Investigating Earth Systems- <i>Our Dynamic Planet</i> • Macmillan/McGraw-Hill, CA Earth Science, Gr. 6, SE, p 390-403 • McDougal Littell Earth Science- Ch. 1, 2, 7, 9, 10 • Prentice Hall, Focus on Earth Science, Ch. 3, 5, 6, 8 & 10 • Scott Foresman CA Focus on Earth Science, Gr.6, SE, p 196-202
9-12	<p>Earth Sciences/Standard Set 3a- Dynamic Earth Processes: Students know features of the ocean floor (magnetic patterns, age, and sea-floor topography) provide evidence of plate tectonics.</p>	<p>Web Resource addressing Grade 9-12 Earth Science Standards:</p> <p>http://earthednet.org/holly/K-12/Dynamic_LP.html</p> <p>http://209.85.173.104/search?q=cache:5Ub0v6D0uYJ:earthweb.ess.washington.edu/creager/ess202/Appendix1.1installing.pdf+dynamict+planet+CD+rom&hl=en&ct=clnk&cd=3&gl=us&client=firefox-a</p>
9-12	<p>Earth Sciences/Standard Set 3b- Dynamic Earth Processes: Students know the principal structures that form at the three different kinds of plate boundaries.</p>	
9-12	<p>Earth Sciences/Standard Set 3c- Dynamic Earth Processes: Students know how to explain the properties of rocks based on the physical and chemical conditions in which they formed, including plate tectonic processes.</p>	
9-12	<p>Earth Sciences/Standard Set 3d- Dynamic Earth Processes: Students know why and how earthquakes occur and the scales used to measure their intensity and magnitude.</p>	
9-12	<p>Earth Sciences/Standard Set 9b- California Geology: Students know the principal natural hazards in different California regions and the geologic basis of those hazards.</p>	
9-12	<p>Earth Sciences/Standard Set 9d- California Geology: Students know how to analyze published geologic hazard maps of California and know how to use the map's information to identify evidence of geologic events of the past and predict geologic changes in the future.</p>	
9-12	<p>Investigation and Experimentation/Standard 1h: Read and interpret topographic and geologic maps.</p>	

Science Laboratory/Classroom Safety Procedures:

Refer to the Science Safety Handbook for California Public Schools, 1999 Edition; Published by the Calif. Dept. of Ed.
Page 97-102: *Earthquake Preparation*

Earthquake Preparedness: Things to Consider in the Science Lab and Common Storage Prep Areas
<ul style="list-style-type: none"> • Safety lips on storage shelves, especially those that accommodate glassware • Proper storage of chemicals • Accessible main shut-off valve for gas, electric and water • Fire-proof storage for acids, bases and other caustic chemicals • Properly secure pressurized gas cylinders • Avoid storing large scientific models (i.e. anatomical models) on the tops of cabinets