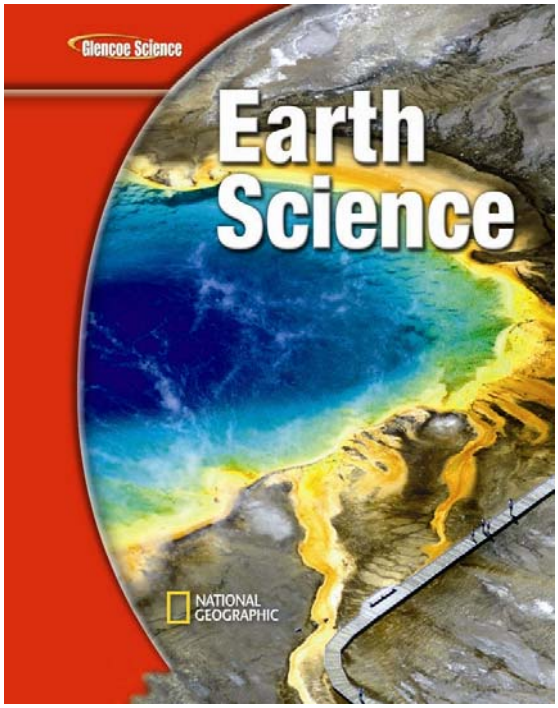
Glencoe

Earth Science
Content Standards
Grades 6-8

Oregon



Earth Science

STANDARDS	PAGE REFERENCES
Grade 6 It is essential that these standards be addressed in contexts that promote scientific inquiry, use of evidence, critical thinking, making connections, and communication.	
6.1 Structure and Function: **Living and non-living systems are organized groups of related parts that function together and have characteristics and properties.**	
6.1E.1 Describe and compare the properties and composition of the layers of Earth.	**Student Edition:** 280, 285, 309-311 *Section Review* 311 **Teacher Wraparound Edition:** CC 309; DI 310; QD 310; UAA 310; VL 309
6.1E.2 Describe the properties of objects in the solar system. Describe and compare the position of the sun within the solar system, galaxy, and universe.	**Student Edition:** 438, 660-662, 671, 696-701, 702-709, 710-713, 740-741 *Launch Lab* 689 *Science Online* 691 *MiniLAB* 704 **Teacher Wraparound Edition:** ACT 708; CC 705; CFU 701, 707; QD 19, 698; TFYI 697

Codes used for Teacher Wraparound Edition pages are the initial caps of headings on that page.

STANDARDS		PAGE REFERENCES
6.2 Interaction and Change: **The related parts within a system interact and change.**		
6.2E.1	Explain the water cycle and the relationship to landforms and weather.	**Student Edition:** 238-248, 437, 449 #19, #25, 451 #15-#17, 458-461 *Launch Lab* 453 **Teacher Wraparound Edition:** A 437, 438, 453; CFU 461; DI 457; IM 437; R 438; SCB 236E; SJ 437; TBI 512; TPK 249
Grade 7 It is essential that these standards be addressed in contexts that promote scientific inquiry, use of evidence, critical thinking, making connections, and communication**.**		
7.2 Interaction and Change: **The components and processes within a system interact.**		
7.2E.1	Describe and evaluate the environmental and societal effects of obtaining, using, and managing waste of renewable and non-renewable resources.	**Student Edition:** 120-129, 130-135, 137-141, 196-199, 500-502, 557-561, 578-584, 586-589, 600-607, 609-615 *MiniLAB* 127 *Science Online* 197 **Teacher Wraparound Edition:** DIS 128; IL 253; LD 124; R 199; SJ 123, 251; V 126
7.2E.2	Describe the composition of Earth's atmosphere, how it has changed over time, and implications for the future.	**Student Edition:** 401, 426-433 *Integrate Chemistry* 401 *Science Online* 428 *Applying Skills* 433 **Teacher Wraparound Edition:** CFU 433; DIS 401, 428; IES 446; SCB 424E; TBI 390; TPK 426; VL 427
7.2E.3	Evaluate natural processes and human activities that affect global environmental change and suggest and evaluate possible solutions to problems.	**Student Edition:** 427-433, 492-502, 609-615 *Integrate Environment* 468 *MiniLAB* 493 *Science Online* 499, 501 *Science and History* 506 **Teacher Wraparound Edition:** DI 338; DIS 427, 499; LD 124, 500; MM 432; R 615; TBI 482; TFYI 427

STANDARDS		PAGE REFERENCES
7.2E.4	Explain how landforms change over time at various rates in terms of constructive and destructive forces.	**Student Edition:** 210-214, 222-227, 238-248, 313-317, 340-343 *Launch Lab* 181, 209 *Science Online* 185 *Design Your Own Lab* 200-201, 228-229 *Lab* 221 *Science and Society* 262 **Teacher Wraparound Edition:** R 214; VL 184
	7.3 Scientific Inquiry: **Scientific inquiry is the investigation of the natural world based on observation and science principles that includes proposing questions or hypotheses, designing procedures for questioning, collecting, analyzing, and interpreting multiple forms of accurate and relevant data to produce justifiable evidence-based explanations.**	
7.3S.1	Based on observations and science principles propose questions or hypotheses that can be examined through scientific investigation. Design and conduct a scientific investigation that uses appropriate tools and techniques to collect relevant data.	**Student Edition:** 8-11, 233 #28, 595 #23 *MiniLAB* 11 *Design Your Own Lab* 52-53, 200-201, 228-229, 350-351, 444-445, 616-617, 746-747 **Teacher Wraparound Edition:** A 19, 229, 261; AIL 229; IL 9
7.3S.2	Organize, display, and analyze relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions including possible sources of error.	**Student Edition:** *Lab* 24-25, 136, 260-261 *Design Your Own Lab* 52-53, 200-201, 228-229, 350-351, 616-617 *Communicating Your Data* 67 *Use the Internet Lab* 290-291, 414-415, 650-651
7.3S.3	Evaluate the validity of scientific explanations and conclusions based on the amount and quality of the evidence cited.	**Student Edition:** 20-22 *Applying Science* 21 *Lab* 23, 45 *Communicating Your Data* 98 *Design Your Own Lab* 200-201, 444-445 **Teacher Wraparound Edition:** A 23, 53, 351, 533; AIL 110; CC 21; SJ 20

STANDARDS		PAGE REFERENCES
7.4 Engineering Design: **Engineering design is a process of identifying needs, defining problems, identifying constraints, developing solutions, and evaluating proposed solutions.**		
7.4D.1	Define a problem that addresses a need and identify constraints that may be related to possible solutions.	**Student Edition:** 205 #22, 214 *Model and Invent Lab* 142-143, 474-475 *Science and Society* 262 *MiniLAB* 318 **Teacher Wraparound Edition:** ACT 133; AIL 320; CC 240; IL 133, 575; MM 132
7.4D.2	Design, construct, and test a possible solution using appropriate tools and materials. Evaluate the proposed solutions to identify how design constraints are addressed.	**Student Edition:** 147 #24, 205 #22 *Model and Invent Lab* 142-143, 474-475 *MiniLAB* 318 *Lab* 634 **Teacher Wraparound Edition:** A 318, 634; ACT 133; AIL 260; IL 575; MM 132; UP 269
7.4D.3	Explain how new scientific knowledge can be used to develop new technologies and how new technologies can be used to generate new scientific knowledge.	**Student Edition:** 12-14, 170, 276-278, 628-633, 635-642, 643-649 *Integrate Earth Science* 26 *Integrate Health* 37 *Science and History* 82, 618 *Accidents in Science* 564 **Teacher Wraparound Edition:** DI 277; DIS 12; R 642; SCB 4E-F, 626E-F; TFYI 277
Grade 8 It is essential that these standards be addressed in contexts that promote scientific inquiry, use of evidence, critical thinking, making connections, and communication**.**		
8.2 Interaction and Change: **Systems interact with other systems.**		
8.2E.1	Explain how gravity is the force that keeps objects in the solar system in regular and predictable motion and describe the resulting phenomena. Explain the interactions that produce Earth's seasons.	**Student Edition:** 492, 529-530, 637, 663-665, 685 #18, 690-694 *MiniLAB* 641 *Science Online* 665 **Teacher Wraparound Edition:** IM 482F; QD 664; V 693

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8.2E.2	Describe the processes of Earth's geosphere and the resulting major geological events.	**Student Edition:** 276-278, 280-289, 300-303, 330-335, 336-343 *Science Online* 282 *Use the Internet Lab* 290-291 **Teacher Wraparound Edition:** A 335; CC 287; DI 288, 302; IM 298F; LD 282; SCB 270E-F
8.2E.3	Explain the causes of patterns of atmospheric and oceanic movement and the effects on weather and climate.	**Student Edition:** 439-443, 462-464, 493, 518-523 *Science Online* 440, 519 *National Geographic* 441, 494-495 *MiniLAB* 493 *Launch Lab* 513 **Teacher Wraparound Edition:** DIS 520; IM 424F; R 523; VL 440
8.2E.4	Analyze evidence for geologic, climatic, environmental, and life form changes over time.	**Student Edition:** 272-275, 362-369, 387 #26-#27, 397-399, 402-406, 408-413 *MiniLAB* 274 *Science Online* 371 *Lab* 376 *Model and Invent Lab* 382-383 *National Geographic* 403 **Teacher Wraparound Edition:** DI 363, 368, 371; DIS 397; SJ 367