Matrix #	Matrix Strand	TEKS Knowledge and Skill	Student Expectation	TAKS Obj.	Resources	Time/Pace	Assessment	Student Work Products	Teaching Notes
Earth, Sun and Moon (17 days) ✖ **Note-this section is being shortened by 7 days from the IPG document.**									
339	**Patterns, Properties, and Models**	7.13 The student knows components of our solar system.	A. Identify and illustrate how the tilt of the Earth on its axis as it rotates and revolves around the Sun causes changes in seasons and the length of a day. (13A)* **B** **T-5**	1. The student will demonstrate an understanding of the nature of science. 5. The student will demonstrate an understanding of Earth and space systems.	Glencoe – Chapter 2: Earth in Space Sections 1 and 2 Investigations and Labs on Earth & Space Labs: • Temperature graph-The Real Reason for the Seasons • FOSS Kit: Earth & Moon Investigations 3 Day and Night Think Questions{R} • Day Length Graph- The Real Reason for the Seasons • Angle of the Sun's Rays Lab • FOSS Kit- Earth & Moon- Investigation 9 • Lab: What Causes the Seasons? {R} pp. 62, 63.	24 days	Lab reports or reflections Optional-- "Building a Sundial" p.13 of the Chapter 2 Resources {S} Graphs and lab investigations from Real Reasons for Seasons and from FOSS Kit. • Begin month long Moon Log (FOSS Kit) • Earth & Moon Investigation 3 Day and Night {R} (FOSS Kit) • Investigation 4 Discover the Moon {R} (FOSS Kit) • Investigation 9 Phases of the Moon {R} (FOSS Kit)	See pp. 105-107 in Real Reasons for Seasons Moon Log	Unit: Sun, Earth, Moon Suggested Sequence of Topics: Seasons Day/Night Time Moon and Phases Eclipses **5 E Instructional Model: All labs are in the 5 E format now.** We recommend starting the unit with the survey on p. 26 in Real Reasons for the Seasons. After working through the activities in the book and kit, follow up by reviewing the survey again and having students Explanation why the common misconceptions are incorrect. Training is REQUIRED to use the FOSS Kits. Sign up through the PDA catalog. Professional

If you have been keeping a year long Ecosystem Field Journal, you can tie the moon log to the ecosystem log. Start the moon log about 20 days before you are discussing the phases of the moon.

There will be a total solar eclipse in Turkey on March 29, 2006. A live webcast is available from http://www.exploratorium.edu/eclipse/ and more eclipse-related lessons are available from http://sunearthday.nasa.gov

Frames Activity: TEK 7.13 A-identify and illustrate how the tilt of the Earth on its axis as it rotates and revolves around the Sun causes changes in seasons and the length of a day

Matrix #	Matrix Strand	TEKS Knowledge and Skill	Student Expectation	TAKS Obj.	Resources	Time/Pace	Assessment	Student Work Products	Teaching Notes
341			B. Relate the Earth's movement and the moon's orbit to the observed cyclical phases of the moon. (13B)* **B** **T-5**		The Real Reasons for Seasons –each campus received at least one copy. www.unitedstreaming.com Discovery School: Earth Science: The Universe (20:20) Celestial Bodies: Moon, Stars, and Planets (2:43)			Within the context of the lessons, the students should develop an understanding of the terms: Rotation Revolution Orbit Waxing Waning Phases Axis Tilt Solar eclipse Lunar eclipse	Development Academy (PDA): http://www.austin.isd.tenet.edu/insupport/pda/index.html

Academic Rigor
At Moon Log's conclusion: Students will Explanation and justify what they have seen: waxing and waning of the moon, moonrise and moonset times.

Accountable Talk:
Classroom discussion starters: Moon Log
At beginning of Moon Log Assignment: ask students what they already know from past observations of the moon.
During Moon Log: Ask students what they are noticing about the moon as they are observing it.

TEKS = (##); Local Objective = (L); Benchmark = B; TAKS = T; * = Middle School Science TAKS Objective
[R] = Required Investigations (required labs or investigations should be conducted for all AISD students.) [S] = Supplemental Investigations
Labs or Investigations should comprise of 40% of the curriculum.

Matrix #	Matrix Strand	TEKS Knowledge and Skill	Student Expectation	TAKS Obj.	Resources	Time/Pace	Assessment	Student Work Products	Teaching Notes
✖ **Earth Processes (7 days)** **Note-this entire section is being added to the APG document.**									
216	**Systems**	7.8 The student knows that substances have physical and chemical properties.	A. Illustrate examples of potential and kinetic energy in everyday life such as objects at rest, movements of geologic faults and falling water. (8A)* **B T-4**	4. The student will demonstrate an understanding of motion, forces, and energy. 5. The student will demonstrate an understanding of Earth and Space systems.	Ch 23: Weathering and Soil Glencoe Ch. 24: Erosional Forces Glencoe Ch. 25: Water Erosion and Depositional Forces **Investigations and Labs for Earth Processes** Weathering of Chalk, p. 700 {S} • Erosion Lab using stream tables, p. 760 {S} • Mass Movement Erosion {R} • ✖ Water Erosion and Soil Type Lab {S}, p. 1-5 appendix • ✖ Soil Erosion Lab {S}, p. 6-7 appendix • ✖ Types of Weathering Power point {S}, p. 8-10 appendix • ✖ Erosion Power point {S}, p. 11-16 appendix ✖ Satellite Questions {S}, p. 17 appendix	7 days	✖ **Vocabulary:** Erosion Chemical weathering Mechanical weathering Deposition Oxidation Soil Aquifer Groundwater Runoff Permeable Impermeable Capillary Action Carbon Dioxide and Limestone	✖Lab questions and reflection • Weathering of Chalk, p. 700 {S} • Erosion Lab using stream tables, p. 760 {S} • Mass Movement Erosion {R}	✖ Stream Tables can be made using disposable paint trays. They can also be ordered from SHRC. ✖ **5 E Instruction Model** **Engagement:** Dante's Peak Clip or United Streaming, Discovery Clip: "Weathering and Erosion" **Exploration:** Weathering of Chalk {S} **Explanation:** Teacher explanation **Elaboration:** Mass Movement: Erosion by Water{R} **Evaluation:** Responses to students questions on Mass Movement Lab or reflection
354	**Patterns, Properties and Models**	7.14 The student knows that natural events and human activity can alter Earth systems.	B. Analyze effects of regional erosional deposition and weathering. (14B)* **L B T-1, 4, 5**						
EOY Review, Interventions, Reteaching, Assessment (7 days)									

Accountable Talk

Classroom discussion starters: Students give examples of where they have seen erosion or weathering taking place. We affect our environment by…How are humans affecting the photosynthesis/respiration cycle?

Contact your Partners in Education representative on your campus to learn about area businesses that want to help public schools with supplies.

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