

GRADE

8

2006-2007 Year at a Glance

FIRST SIX WEEK CYCLE				
WEEK	DAYS	LESSONS	PAGES	ASSESSMENT
1	9/7-9/15	Process Skills and Intro	Appendix, pp. A1-A5, pp. 4-9, 130	
2	9/18-9/22	Introduction to Matter	pp. 10-15, 132	PSSA ✓ point/Constructed Response
3	9/25-9/29	Introduction to Matter	pp. 16-25	
4	10/3-10/6	Introduction to Matter	pp. 32-35, 134	PSSA ✓ point/Constructed Response
5	10/10-10/13	Introduction to Matter	pp. 36-47	
6	10/16-10/20	Introduction to Matter	Benchmark Review	Constructed Response
SECOND SIX WEEK CYCLE				
REFER TO THE COORDINATING DOCUMENT				
1	10/23-10/26	Introduction to Matter	pp. 48-49	
2	10/30-11/3	Introduction to Matter	pp. 56-63	PSSA ✓ point/Constructed Response
3	11/6-11/10	Introduction to Matter	pp. 64-71, 136	
4	11/14-11/17	Introduction to Matter	pp. 74-75, 82-95	PSSA ✓ point/Constructed Response
5	11/20-11/22	Introduction to Matter	pp. 96-97	
6	11/27-12/1	Introduction to Matter	pp. 98-99	Constructed Response
THIRD SIX WEEK CYCLE				
1	12/4-12/8	Inside the Restless Earth	pp. 80-85, 4-11	
2	12/11-12/15	Inside the Restless Earth	pp. 12-17	PSSA ✓ point/Constructed Response
3	12/18-12/22	Inside the Restless Earth	pp. 20-21	
4	1/2-1/5	Inside the Restless Earth	pp. 28-35, 182-184	PSSA ✓ point/Constructed Response
5	1/8-1/12	Inside the Restless Earth	pp. 36-43, 50-51	
6	1/16-1/23	Inside the Restless Earth	pp. 44-49, 185	Constructed Response
FOURTH SIX WEEK CYCLE				
1	1/24-2/1	Inside the Restless Earth	pp. 52-53, 95-107	
2	2/5-2/9	Inside the Restless Earth	pp. 108-111, 120-121	PSSA ✓ point/Constructed Response
3	2/12-2/16	Inside the Restless Earth	pp. 112-123, 186-188	
4	2/20-2/23	Inside the Restless Earth	pp. 129-135, 155-161	PSSA ✓ point/Constructed Response
5	2/26-3/2	Inside the Restless Earth	pp. 162-173	
6	3/5-3/9	Inside the Restless Earth	Benchmark Review	Constructed Response
FIFTH SIX WEEK CYCLE				
REFER TO THE COORDINATING DOCUMENT				
1	3/12-3/23	Forces, Motion and Energy	pp. 3-13, 192	
2	3/26-3/30	Forces, Motion and Energy	pp. 14-25, 194-195	PSSA ✓ point/Constructed Response
3	4/9-4/13	Forces, Motion and Energy	pp. 28-29, 36-37, 193	
4	4/16-4/20	Forces, Motion and Energy	pp. 38-46, 196	PSSA ✓ point/Constructed Response
5	4/23-4/27	Forces, Motion and Energy	pp. 47-57	
6	4/30-5/4	Forces, Motion and Energy	pp. 58-59, 198-199	Constructed Response
SIXTH SIX WEEK CYCLE				
1	5/7-5/11	Forces, Motion and Energy	pp. 93-113	
2	5/14-5/18	Forces, Motion and Energy	pp. 116-117, 202-203	PSSA ✓ point/Constructed Response
3	5/21-5/25	Forces, Motion and Energy	pp. 124-137, 205	
4	5/29-6/1	Forces, Motion and Energy	pp. 138-147, 150-151	PSSA ✓ point/Constructed Response
5	6/4-6/8	Forces, Motion and Energy	pp. 158-171	
6	6/11-6/19	Forces, Motion and Energy	pp. 154-155, 190-191	Constructed Response

SECOND SIX WEEK CYCLE SCIENCE 8 PLANNING AND SCHEDULING TIMELINE

LESSON PLANNING WHAT I WILL TEACH...	CONTENT/PERFORMANCE DESCRIPTOR(S): <small>TEACHING TO PROFICIENCY</small>	PA STANDARD STATEMENT(S)	TEXTUAL REFERENCE STRUCTURED LESSONS
GOOD INSTRUCTION IS THE BEST TEST PREPARATION			
<small>HOLT SCIENCE AND TECHNOLOGY: INTRODUCTION TO MATTER</small>	<small>*DENOTES ELIGIBLE CONTENT</small>	<small>REFER TO PAGE(S) IN CORE CURRICULUM</small>	<small>REFER TO THE COORDINATING DOCUMENT</small>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • State specific information about an object or phenomena based on experiences with it • Review the three states of matter 	<ul style="list-style-type: none"> • Describe changes to matter caused by heat, cold, light or chemicals* • Use process skills to make inferences and predictions using collected information* 	<p>3.1.10E p. 26 3.2.10B p. 30</p>	<p>TerraNova Testing (Abridged Schedule) Day 3: Chapter 2 Review, pp. 48-49; Worksheet, CRF pp. 26-30 (also in Spanish, OSP). Chapter 3</p>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • Describe pure substances • Describe the characteristics of elements, and give examples • Explain how elements can be identified • Classify elements according to their properties • Explain how elements make up compounds • Describe the properties of compounds • Explain how a compound can be broken down into its elements • Give examples of common compounds 	<ul style="list-style-type: none"> • Describe the properties of compounds and give examples of common compounds* • Describe changes to matter caused by heat, cold, light or chemicals* • Develop appropriate scientific experiments: raising questions, formulating hypotheses* • Design an investigation with limited variables* 	<p>3.4.10A p. 44 3.1.10E p. 26 3.2.10B p. 30 3.2.10C p. 32</p>	<p>Chapter 3 Day 1: Chapter Starter Transparency Reading Strategy, p. 56 Section 1, pp. 56-59 Reading Checks, pp 56, 58 Bellringer, p. 56 Day 3: Reading Strategy, p. 60 Section 2, pp. 60-63 Bellringer, p. 60 Reading Checks, pp. 61, 62</p>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • Describe three properties of mixtures • Analyze a solution in terms of its solute and solvent • Explain how concentration affects solution • Describe the particles in a suspension • Explain how a colloid differs from a solution and a suspension 	<ul style="list-style-type: none"> • Use process skills to make inferences and predictions using collected information* • Explain concepts about the structure and properties of matter* 	<p>3.2.10B p. 30 3.4.10A p. 44</p>	<p>Chapter 3 Day 1: Reading Strategy, p. 64 Section 3, pp. 64-71 Bellringer, p. 64 Reading Checks, pp. 64, 67, 69, 70 Day 3: Picture Window 3.2.10B, CC, pp. 30-31</p>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • Describe some of the experiments that led to the current atomic theory • Compare the different models of the atom • Explain how the atomic theory has changed as scientists have discovered new information about the atom • Describe the size of an atom • Name the parts of an atom • Describe the relationship between numbers of protons and neutrons and atomic number 	<ul style="list-style-type: none"> • Describe atoms as composed of even smaller sub-atomic structures 	<p>3.4.10A p. 44</p>	<p>Chapter 3 Day 1: Chapter Review, pp. 74-75; Worksheet, CRF pp. 31-35 (also in Spanish, OSP) Chapter 4 Day 3: Motivate Activity, p. 82 Reading Strategy, p. 82 Section 1, pp. 82-87 Reading Checks, pp. 83, 85, 86 Activity p. 82 Day 4: Transparency: Parts of an Atom; Reading Strategy, p. 88 Section 2, pp. 88-95 Reading Checks, pp. 89, 90, 92, 94</p>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • Describe the size of the atom • Name the parts of an atom • State how isotopes differ • Calculate atomic masses • Describe the forces within an atom 	<ul style="list-style-type: none"> • Describe atoms as composed of even smaller sub-atomic structures 	<p>3.4.10A p. 44</p>	<p>Benchmark Test #2</p>
<ul style="list-style-type: none"> ❖ Related Cultural Perspectives • Describe some of the experiments that led to the current atomic theory • Compare the different models of the atom • Explain how the atomic theory has changed as scientists have discovered new information about the atom • Describe the size of an atom • Name the parts of an atom • Describe the relationship between numbers of protons and neutrons and atomic number 	<ul style="list-style-type: none"> • Describe an atom as composed of even smaller sub-atomic structures 	<p>3.4.10A p. 44</p>	<p>Chapter 4 Day 3: Chapter Review, pp. 98-99; Worksheet, CRF pp. 20-24 (also in Spanish, OSP)</p>

PLANNING AND SCHEDULING TIMELINE SCIENCE 8 SECOND SIX WEEK CYCLE

TIME PACING	OTHER REFERENCES TECHNOLOGY	SAMPLE PSSA ASSESSMENT ITEM ALIGNED TERRANOVA OBJECTIVES	CROSS CURRICULAR PSSA CONNECTION TO "WHAT I WILL TEACH"
GOOD INSTRUCTION IS THE BEST TEST PREPARATION			
<p>Cycle 2 Week 1</p> <p>4 days</p> <p>Oct. 23 to Oct. 26</p> <p>TerraNova Testing</p>	<p>Labs</p> <p>Day 1 and 2: TerraNova testing, reflect on Science Notebook entries</p> <p>Assessment</p> <p>Day 4: *Chapter 2, Test A, CRF pp. 37-40 (also in Spanish, OSP) or Performance-Based Assessment, CRF p. 49-50</p> <p>*This assessment may be administered in small groups</p>	<p>Multiple Choice</p> <p>The change of a solid directly to a gas is called_____.</p> <p>Aligned TerraNova Objectives</p> <p>20 Physical Science</p>	<p>Energy and Transfers of Heat: See Core Curriculum page 46 for rationale, concepts and misconception related to changes of state.</p>
<p>Cycle 2 Week 2</p> <p>5 days</p> <p>Oct. 30 to Nov. 3</p> <p>PSSA Checkpoint</p>	<p>Labs</p> <p>Day 2: Quick Lab, p. 57 Datasheet for Quick Lab, CRF p. 65</p> <p>Technology</p> <p>Day 3: Quick Lab, p. 61 Datasheet for Quick Lab, CRF p. 66</p> <p>Day 4: Review and discuss lab data and complete Science Notebook entries.</p> <p>Assessment</p> <p>Day 5: Section Review, p. 59; Worksheet, CRF pp. 25-26 and Section review, p. 63; Worksheets, CRF pp. 27-28</p> <p>Extension</p> <p>Picture Window 3.5.10D, CC, pp. 58-59 or Picture Window 4.1.10B, CC, pp. 84-84</p>	<p>✓ Point Question</p> <p>Constructed Response</p> <p>What is the difference between an element and a compound?</p> <p>Aligned TerraNova Objectives</p> <p>19 Science Inquiry 20 Physical Science</p>	<p>Science Inquiry Flow Chart: See Core Curriculum Appendix page A10 for steps in problem-solving.</p>
<p>Cycle 2 Week 3</p> <p>4 days</p> <p>Nov. 6 to Nov. 10</p>	<p>Day 2: Skills Practice Lab, p. 136 Datasheet for LabBook, CRF pp. 67-68</p> <p>Day 4: Review and discuss lab data and complete Science Notebook entries.</p> <p>Technology</p> <p>See: Guided Reading Audio CD (English and Spanish), See also: SciLinks Activities, Teacher's Edition, and CRF.</p>	<p>Multiple Choice</p> <p>An example of a mixture is_____.</p> <p>Aligned TerraNova Objectives</p> <p>20 Physical Science</p>	<p>Apply Elements of Scientific Inquiry: See Core Curriculum page 32 for rationale, concepts and misconception related to problem solving.</p>
<p>Cycle 2 Week 4</p> <p>4 days</p> <p>Nov. 14 to Nov. 17</p> <p>PSSA Checkpoint</p>	<p>Labs</p> <p>Technology</p> <p>See: Guided Reading Audio CD (English and Spanish)</p> <p>See also: SciLinks Activities, Teacher's Edition, and CRF.</p> <p>Assessment</p> <p>Day 2: Chapter 3 Test A, CRF pp. 43-46 (also in Spanish, OSP) or Performance-Based Assessment, CRF pp. 55-57</p>	<p>✓ Point Question</p> <p>Constructed Response</p> <p>Compare the location of electrons in Bohr's theory with the location of electrons in the current theory.</p> <p>Aligned TerraNova Objectives</p> <p>19 Science Inquiry 20 Physical Science</p>	<p>Scientific Theory: See Core Curriculum page 28 for rationale, concepts and misconception related to scientific theories.</p>
<p>Cycle 2 Week 5</p> <p>3 days</p> <p>Nov. 20 to Nov. 22</p>	<p>Labs</p> <p>Day 1: Benchmark Test #2</p> <p>Day 2: Chapter Lab, pp. 96-97 Datasheet for Chapter Lab, CRF pp. 48-50</p> <p>Day 3: Review and discuss lab data and complete Science Notebook entries.</p>	<p>Multiple Choice</p> <p>An atom's _____ is equal to the number of protons in its nucleus.</p> <p>Aligned TerraNova Objectives</p> <p>20 Physical Science 23 Science and Technology</p>	<p>Graphic Organizers: See Literacy Core Curriculum page A7, the Frayer Model, as a strategy for vocabulary development.</p>
<p>Cycle 2 Week 6</p> <p>5 days</p> <p>Nov. 27 to Dec. 1</p>	<p>Labs</p> <p>Day 1 and 2: Review Benchmark data to: reteach, accelerate, enhance understanding as needed</p> <p>Assessment</p> <p>Day 4: Chapter 4 Test A, CRF pp. 30-33 (also in Spanish, OSP) or Performance-Based Assessment, CRF pp. 42-43</p> <p>Day 5: Review Chapter Test and complete Science Notebook entries.</p>	<p>Constructed Response</p> <p>List and describe the four basic forces at work everywhere in nature?</p> <p>Aligned TerraNova Objectives</p> <p>20 Physical Science</p>	<p>Properties of Matter: See Core Curriculum page 44 for rationale, concepts and misconception related to atoms.</p>