

Week	Topic	Standards (KCAS, Literacy, Quality Core, other KY standards)	Learning Targets (I can... or I am learning to...)	Curriculum Resources and Assessments (texts, video clips, images, primary/secondary sources, etc.)
1 Aug 13- 17	Chemistry – Introductions and Foundations	I. A. 1. a – g; I. A. 3. a – g; these targets are also embedded throughout the year	See Unit 1 Learning Targets (LT) (sent as attachment with this pacing guide)	Unit 1 Targets; Element Quizzes – Set 1 – Symbols and Spelling; Pretest results; Formative Assessment Probe ((FAP) – Hypotheses, Theory); “Science Basics – Notes”; “Applying Scientific Methods”; “Categories” – Note taking graphic organizer; Lab Equipment and Graphing reference sheets; Constructed Response (CR) – Graphing; soft drink and Mentos demo/ index cards for research question; distribute books; textbook handouts for Ch. 1
2 Aug 20- 24	Matter and Change	II. A. 1. a and b; II. A. 2. a – c; II. B. 1. a – 3; IV. A. 1. a – b	Unit 1 LT	Lab Safety Quiz; FAPs – “Is It Matter?”, “Is is a Solid?”, and “Hot and Cold Balloons”; Element Quizzes – Set 2 – Symbols and Spelling; Ch. 2 textbook handouts; transparency master – “Classification of Matter” ; study guide from <i>Matter and Change</i> book; Chemical/Physical properties and changes practice; Lab: Physical and Chemical Changes; Introductory questions to measurement chapter
3 Aug 27 - 31	Measurement	I. A. 2. a - g	Unit 1 LT	Vocabulary Quiz – Ch. 2 Terms; FAPs – on density; Separation of Recycled Materials (density): solve problem and write letter (chemfiesta website); Labs: densities of pennies and chromatography with M and Ms (time permitting); practice problems with precision, accuracy, significant figures, SI system, and density; Unit 1 EXAM
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Sept 4 – 7	Measurement	I.A. 2. a – g	Unit 1 LT	See above – Measurement “stuff” was continued due to ASVAB and field trips; I postponed the exam by 4 days; plus added Ch. 3 vocab quiz and the “Density Slope” lab activity (did not do M and M lab, nor penny lab); Unit 1 test - Sept.7
5 Sept 10 - 14	Atomic Structure	IV. B. 1. a and b	Unit 2 Learning Targets (U2 LT) – (sent as attachment with pacing this pacing guide Sept. 10)	Practice filling charts to determine #s of subatomic particles; practice problems with calculating atomic mass; atom-building game boards; Lab: Isotopes of Pennium; formative assessment probe: “Pennies”; video clip of simulation of Rutherford’s gold foil experiment
6 Sept 17 - 21	Orbital Theory and Electron Configurations	IV. B. 1. c through f	Unit 2 LT	Lab: flame tests of elements; Demo: wintergreen lifesavers in the dark; notes - rules governing electron arrangement in atoms; lots of practice problems with electron configurations and orbital diagrams; characteristics of waves video; practice problems with Planck’s constant also; Unit 2 Test – hopefully Sept 21
7 Sept 24- 28	Orbital Theory and Electron Configurations	IV. B. 2. b through d and II. A. 2. c	Unit 2 LT (NOTE: right after distributing LTs to students I made some additions and re-distributed; I am re-submitting Unit 2 LTs	No new materials except for an additional practice packet; also isotope lab to be completed this week (didn’t get to week of Sept 10); an additional set of review questions for chapter b/c students still weren’t ready for test on Sept 21; Unit 2 Test – Sept. 28
8 Oct 1 – 5 plus Oct 8 – 9	Periodic Table	IV. B. 2. a through 3 and 2. g	Unit 3A Learning Targets (sent as attachment); I am calling this Unit 3A b/c of timing of fall break – couldn’t finish everything about periodic table; periodic trends goes along with periodic table; I will call the periodic trends Unit	Notes over periodic table (history, organization, and representative groups); Activity: periodic table placemats and (hopefully) creation of larger scale periodic table; web assignment to expose students to various types of tables; students will compile research on alkali metals, alkaline earth metals, transition metals, halogens, rare earth metals, and noble gases

			3B	(maybe jigsaw activity); vocab quiz over 6.1 and 6.2; Test over 6.1 and 6.2 on Tues. Oct. 9
9 Oct	Part of previous wk			
10 Oct 15- 19	Periodic Trends	IV. B. 2. f	Unit 3B Learning Targets-attached	Notes on periodic trends; LAB: Reactivity of Alkaline Earth Metals; Test Oct. 19 (Note: the periodic table test actually occurred Oct. 24)
11 Oct. 22 - 26	Ionic Bonding	IV. B. 3 a - d	Unit 4 and 5 Learning Targets – attached; NOTE: I put the targets for Unit 4 and 5 together because ACT Quality Core groups so many of the “ionic” objectives together with the “covalent” objectives, and I want to be in keeping with how ACT presents their objectives – this is how cumulative eoca questions will be posed – so even though we “broke up” ionic and covalent topics into two units I presented the targets to the students collectively	Wrapping up periodic table trends and reviewing groups of elements and their properties; Test Oct. 24 Begin Ch. 7 – Discuss octet rule; notes on formation of cations and anions; ppt. over sections 7.1 and 7.2; practice Lewis structures of cations and anions
12 Oct. 29 – Nov. 2	Ionic Bonding	IV. B. 3 a – d	Unit 4 and 5 Learning Targets – attached	Review sections 7.1 and 7.2; assign #1 – 11 p. 193; #12 and 13 p. 196; #14 – 22 p. 199; use ppt. for notes on formation of ionic compounds (section 7.3); practice Lewis structures for ionic compounds; assign #23 –

				29 p. 203; #48 p. 207; brief discussion of metallic bonding and alloys; vocab quiz over all of ch. 7 terms (assign polyatomic ions to study quizzes next week)
13 Nov. 5 – 9	Naming Ions	III. A. 1. c IV. B. 4. a. and b.	Unit 4 and 5 Learning Targets – attached	Discuss and demonstrate how to name ions; ppt for Section 9.1; work on how to determine charges for transition metals – point out exceptions; discuss polyatomic ions (Table 9.3!); assign #1, 2 p. 256; #3 – 9 p. 258; #42, 44, 46 p. 281; #10, 11 p. 263; #12 and 13 p. 265; #14 – 18 p. 266; 48, 50, 52 p. 281; polyatomic ion quiz (take 1) on November 8
14 Nov. 12 - 16	Naming and Writing Formulas for Ionic Compounds	III. A. 1. c IV. B. 4. a. and b.	Unit 4 and 5 Learning Targets - attached	Review and Reinforcement on “Criss Cross” method; demonstrate use of chart to determine how to use Roman numerals when transition metals are involved; Practice naming worksheets from www.chemfiesta.org ; work with clock buddies on compound naming races; polyatomic ion quiz (take 2) Nov. 12; polyatomic ion quiz (take 3) Nov. 15; Lab: Determining Chemical Formulas
15 Nov. 19 - 20	(everything about) Ionic Compounds	IV. B. 3 a – d; III. A. 1. c.; IV. B. 4. a. and b.	Unit 4 and 5 Learning Targets – attached	Review; test over Chapter 7 (Ionic and Metallic Bonding) and Sections 9.1 and 9.2 (Naming and Writing Formulas for Chemical Compounds)
16 Nov. 26- 30	Nature of Covalent Bonds/Lewis structures	IV. B. 3. a., c through e. III. A. 1. a and b	Unit 4 and 5 Learning Targets – attached	Notes/discussion over sections 8.1 and 8.2; assign 1 – 6 p. 216; #39 – 41 p. 247; practice Lewis structures; discussion of resonance structures and diatomic molecules; look at/draw examples; have students draw Lewis structures of elements and simple ions on smart board; complete Frayer model for 8.1

				terms and 8.2 terms; complete 8.1 worksheet packet
17 Dec. 3 - Dec. 7	Covalent Bonding – VSEPR theory	IV. B. 4. c through f	Unit 4 and 5 Learning Targets – attached	Have students complete 8.3 reading guide for notes; give students notes from various chemistry websites that describe the “Kelter strategy” for Lewis structures of molecular compds; give students “VSEPR” chart for reference; discussion of molecular geometry, bond angles, bonding domains, etc.; assign practice problems so they learn to use chart; assign #26, 28 p. 236 and #53, 56 p. 247; discuss sigma and pi bonds and hybridization of orbitals; give students note packet from www.boisestate.edu (chemistry dept)
18 Dec. 10 - 14	Covalent Bonding – VSEPR theory continued/IM forces	IV. B. 4. c through f	Unit 4 and 5 Learning Targets – attached	LAB: Building compounds with “ball and stick” models; reading guide for 8.4 (polarity and IM forces); discussion on electronegativity differences and using them to determine bond type; discussion of molecular polarity (eg: carbon dioxide vs. water); assign #32 – 38 p. 244 and #58 and 61 p. 247; allow students re-take of Ionic Bonding Test
19 Dec 17- Dec 21	Covalent Bonding – Intermolecular Forces (cont) and Naming Molecular Cmpds.	III. A. 1. d. IV. B. 3. f through h, k	Unit 4 and 5 Learning Targets – attached	Continue notes and discussion over section 8.4 and 9.3 (point out table of prefixes); practice naming molecular compds, and a “mixed review”- both ionic and covalent compds.; LAB: tie-dyeing t-shirts; Ch. 8 vocab quiz (create word wall); practice test over covalent bonding
20 Jan 2- Jan 4	Naming acids and hydrates	III. a. 1. d. IV. B. 3. f through h, k	Unit 4 and 5 Learning Targets - attached	Notes/discussion on naming acids and hydrates; review everything about covalently bonded compounds; test over ch. 8 and 9.3 through 9.5
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