Science Unit: Chemical Reactions

P2G WEEKLY UNIT PLANNING TEMPLATE

Course: Science Teacher: G. Fay / Marcell C Edwards Dates of Unit: 2/11/14 - 2/14/14

STAGE 1: DESIRED RESULTS HS-PS Chemical Reactions (pp. 76-77)

UNIT GOAL/FOCUS:

The unit ~~focuses on the topic Chemical~~ will ~~Reactions and help~~ build understanding of ~~how~~ chemical reactions.

COMMON CORE LEARNING STANDARDS: (See Orange Binder)

HS-PS-2: Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical prop.
HS-PS1-4: develop a model...
5th Apply atomic principles (See p. 76 of binder)

ESSENTIAL/FOCUS QUESTION(S):

- What is the Law of Conservation of Matter?
- What are the characteristics of bond energy?
- What are the properties and structure of matter?

CONTENT OBJECTIVES:

Students will know…

- how to recognize a balanced chem. eq.
- understand & apply law of conservation of matter
- identify different types of solutions

SKILLS/STRATEGIES OBJECTIVES:

Students will be able to…

- understand the structure & properties of matter
- understand how chemicals react
- understand how to describe and predict chemical reactions

LANGUAGE OBJECTIVES & VOCABULARY:

Students will read, write, speak, or listen… students will learn to apply these vocabulary terms: chemical equation
chemical formula
chemical reaction

Vocabulary will be displayed, defined, & placed on a chart.

STAGE 2: ASSESSMENT EVIDENCE

END OF UNIT ASSESSMENT/ PERFORMANCE TASK:	END OF UNIT STUDENT SELF-ASSESSMENT/REFLECTION:
Conversation: - Short-Answer Exam about balancing equations & keyed to the objectives - Short essay on Chemical Reactions.	Self-assment form: • What I learned, • What I still don't understand • What I have mastered.

STAGE 3: LEARNING PLAN

TEXTS:

• McGraw Hill Common Core Basic Science

~~Kaplan~~

(TASC) Scoreboost: Thinking Skills - Critical Thinking for Reading, Science, and Soc Studies (New Reader's Press)

RESOURCES & MATERIALS:

• Bill Nye Videos
• Chart Paper
• Markers

• Teacher will search Internet for appropriate material.

TECHNOLOGY INTEGRATION:

TV with DVD player

DIFFERENTIATION:

- Exit Ticket will ask students to reflect on what they learned
- Do Now will ~~link~~ encourage students to reflect on what they learned in previous lessons and to link personal experiences/interests to Science concepts.
- Showing videos, writing assignments, reading & discussion will engage students with different learning styles.

STAGE 3: LEARNING PLAN (CONTINUED)—OUTLINE OF LESSONS FOR UNIT

DAY	AIM	OBJECTIVES	INSTRUCTIONAL SEQUENCE/PLAN	DAILY ASSESSMENT
Monday		SWBAT construct and revise an explanation for the outcome of a simple chemical reaction	*Do Now: Quiz - 5 questions (TASC) on chem. reactions * Mini-Lesson: Chemical Reactions ~~& demo~~ with Alka-Seltzer Types of chemical reactions Chemical formula & Chemical equation	• Do Now: Diagnosti • share out; word wal • Identify a chem. equation
Tuesday		SWBAT draw/diagram the release ~~of~~ or absorption of energy from a chemical reaction system.	Do Now: Quiz on Monday's lesson Mini Lesson: Balancing Equations *Periodic Table	
Wednesday		SWBAT understand how changing the temperature of reactants affects the rate at which the chemical reaction occurs.	DN: Review Quiz Mini-Lesson: Note-Taking Skills for scientific passages.	• Students demonstrate their ability to take notes • students use vocab ~~to~~ in sentences.
Thursday				
Friday				