EARTH & SPACE SCIENCE 8

MRS. DUDDLES

Q1 – CHEMISTRY

FRIDAY 10/27/2017 – HALF DAY PM

- No Science class today – Math block with Mr. Carron for Decimals Project work

THURSDAY 10/26/2017

Objectives:

- Students will describe the structure of the universe, including the scale of distances in the universe
- Students will describe stars and their physical properties
- Students will describe the stages of the life cycles of stars

White Space Question:

What things can be found in our universe?

Agenda: (No Power Hour)

- Engineering Design Process Practice and Reflection on "Design a Better Model" project (if time)
- Dimensional Analysis Review with notes & practice worksheets

WEDNESDAY 10/25/2017

Objectives:

- Students will describe the structure of the universe, including the scale of distances in the universe
- Students will describe stars and their physical properties
- Students will describe the stages of the life cycles of stars

White Space Question:

What is at the center of our solar system?

Agenda:

- Turn in Galactic Address assignment
- Science Notebook check
- Work on Activity 1 "Structure of the Universe"
  - Read pages 4 – 11 in the *Space Science* book
  - Answer questions 1 – 3, 5 – 7, 9 – 11, and 13
  - Do Lesson Review on page 13, questions 1 – 10

TUESDAY 10/24/2017

Objectives:

- **Students will describe the structure of the universe, including the scale of distances in the universe**
- **Students will describe stars and their physical properties**
- **Students will describe the stages of the life cycles of stars**

White Space Question:

Name as many planets which you know that belong to our solar system.

Agenda:

- **Mrs. Duddles at Stream Leaders with 7th grade class**
- **Space Science Notes with Mr. Moore**
- **Science Notebook check tomorrow, Wednesday 10/25**

MONDAY 10/23/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

Write the chemical equation for the process of cellular respiration.

Agenda:

- **Turn in "Design a Better Model Project" model and poster; due today**
- **Discuss and review Chemistry Unit Test**
- **Start Space Science unit**
- **Science Notebook check this Wednesday 10/25**

FRIDAY 10/20/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

The starting materials in a reaction are called _____.The new substances that are formed in a reaction are called _____.

Agenda:

- Continue work on "Design a Better Model Project" if you brought in your recycled materials; due beginning of class Monday 10/23

THURSDAY 10/19/2017

No class today – 8th grade field trip to Henry Ford Museum

WEDNESDAY 10/18/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

What type of bond forms between beryllium (Be) and chlorine (Cl)?

Agenda:

- **Take Chemistry Unit Test Part II**
- **Continue work on "Design a Better Model Project" if you brought in your recycled materials; due Friday 10/20**

TUESDAY 10/17/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

Draw the Bohr model and Lewis structure for the element #14 (Si).

Agenda:

- **Take Chemistry Unit Test Part 1**
- **Continue work on "Design a Better Model Project" if you brought in your recycled materials; due Friday 10/20**

MONDAY 10/16/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

Define the term catalyst.

Agenda:

- **Continue work on "Design a Better Model Project" if you brought in your recycled materials; due Friday 10/20**
- **Check Balancing Equations: Practice Problems worksheet (15 mins)**
- **Review for Chemistry Unit Test Tuesday 10/17 (20 mins)**

FRIDAY 10/13/2017 – HALF DAY AM CLASSES ONLY

THURSDAY 10/12/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

What is the difference between a physical change and a chemical change? What are the signs that a chemical reaction or change has happened?

Agenda:

- Work on "Design a Better Model Project" if you brought in your recycled materials; due Friday 10/20
- Complete Balancing Equations: Practice Problems WS

HW: Chemistry Unit Test Study Guide; Unit Test Tuesday 10/17

WEDNESDAY 10/11/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

What does it mean that a chemical reaction is exothermic?

Agenda:

- **Keep working on Chemistry Unit Test Study Guide; Unit Test week of 10/16**
- **Complete Balancing Equations WS**
- **Work on "Design a Better Model Project" if you have your recycled materials**

TUESDAY 10/10/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

In your own words, state the Law of Conservation of Matter and Energy. How does a balanced chemical equation show that matter is conserved?

Agenda:

- Take Chemistry Part 3 Notes with note sheet
- Discuss and review Balancing Equations and Modeling Photosynthesis & Cellular Respiration lab activity
- Discuss "Design a Better Model Project" project handout; due Friday 10/20
  - You must have your recycled materials for the project by this Thursday

MONDAY 10/09/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

In your own words, describe the process of photosynthesis.

Agenda:

- Work on Chemical Bonding WS – This is part of your review for Chemistry Unit Test week of 10/16 (5 mins)
- Discuss & review Chemistry Part 2 Quiz
- Distribute Chemistry Unit Test Study Guide; Unit Test week of 10/16
- Continue work on Balancing Equations and Modeling Photosynthesis & Cellular Respiration lab activity

FRIDAY 10/06/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

Ionic bonds involve what types of atoms?

Agenda:

- Work on Chemical Bonding WS – This is part of your review for Chemistry Unit Test week of 10/16
- Do Balancing Equations and Modeling Photosynthesis & Cellular Respiration lab activity

THURSDAY 10/05/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

Which type of bond is stronger, ionic or covalent? Explain your answer (Hint: Think about what you observed during the "Sugar or Salt?" lab. Which substance melted faster?)

Agenda:

- **Turn in 8th Grade field trip permission form due today**
- **Take Chemistry Part 2 Quiz**
- **Work on Chemical Bonding WS – Review for Chemistry Unit Test**

WEDNESDAY 10/04/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will begin to investigate chemical bonding and identify the signs of a chemical reaction
- Students will understand that balanced chemical equations show that mass is conserved

White Space Question:

Covalent bonds often happen between what types of atoms (metal or nonmetal)?

Agenda:

- Turn in 8th Grade field trip permission form due Thursday 10/05
- Review notes packet on Chemistry Part 2 (Chemical Bonding); Use this notes packet to help you study for Chemistry Part 2 quiz
- Preview Balancing Equations and Modeling Photosynthesis & Cellular Respiration lab activity
- **Quiz on Chemistry Part 2 on Thursday 10/05**

TUESDAY 10/03/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

What is the difference between a single bond and a double bond?

Agenda:

- **Turn in 8th Grade field trip permission form due Thursday 10/05**
- **Watch Science Bob video to see decomposition reaction of H2O2 into O2 & H2O (elephant toothpaste lab)**
- **Finish notes on Chemical Bonding with notes packet; go to Mrs. Duddles' class webpage to find Chemistry Part 2 notes PPT file**
- **Quiz on Chemistry Part 2 Notes Thursday 10/05**

MONDAY 10/02/2017

Objectives:

- **Students will investigate and be able to describe the basic structure of an atom**
- **Students will begin to investigate chemical bonding and identify the signs of a chemical reaction**
- **Students will understand that balanced chemical equations show that mass is conserved**

White Space Question:

What is the relationship among elements, compounds, and mixtures?

Agenda:

- **Turn in 8th grade field trip permission form due Thursday 10/05 (THF wants a count by this date!)**
- **Do Activity 4 "Elephant Toothpaste" lab activity; Read & follow directions in lab sheet carefully**
- **Finish notes on Chemical Bonding with WS (if time)**

FRIDAY 09/29/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

Ionic bonds usually form between what types of atoms?

Agenda: (shorten class for Butcher Jog-a-thon)

- Turn in 8th Grade field trip permission form due 10/06
- Finish notes on Chemical Bonding with WS (if time)
- Discuss & review Marshmallow Lab activity

THURSDAY 09/28/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

How are covalent bonds different from ionic bonds?

Agenda: (shorten class for Power Hour)

- Turn in 8th grade field trip permission form
- Marshmallow Prelab: Read Procedures steps so that you understand what you are doing
- Complete Marshmallow Lab activity

WEDNESDAY 09/27/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

What happens to the electrons of atoms in ionic Bonding?

Agenda:

- Distribute 8th grade field trip notice & permission form for The Henry Ford visit
- Marshmallow Lab prelab prep: Read the procedures so you understand what we are doing in the lab tomorrow
- Work on Covalent Bonds Practice sheet

TUESDAY 09/26/2017

- No Science class today due to NWEA ELA testing with Mrs. Toy
- Report to Mrs. Toy's class room #128 for NWEA ELA Test

MONDAY 09/25/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

Why do atoms form bonds?

Agenda:

- Pass back Chemistry Part 1 quiz
- Continue notes on chemical bonding using Ionic Bond Practice WS

FRIDAY 09/22/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

Isotopes of an atom will have the same number of what subatomic particle(s)?

Agenda: (Extended science class period today)

- Read and follow directions in lab packet to complete Activity 3 "Sugar or Salt?" lab activity
- Finish Notes on chemical bonding (if time)

THURSDAY 09/21/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element
- Students will begin to investigate chemical bonding

White Space Question:

How do I find the number of electrons in an atom?

Agenda: (Short class period for Power Hour)

- Take quiz on atomic structure, subatomic particles, Bohr model, Lewis structure & Periodic Table basics (30 mins)
- Copy Activity 3 "Sugar or Salt?" set up in to Science notebook

WEDNESDAY 09/20/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

In a neutrally charged atom, what can you conclude about the number of protons and electrons?

Agenda: (Extended class period to accommodate 7th grade NWEA testing)

- Review for quiz on atomic structure, subatomic particles, bohr model, lewis structure & periodic table basics with Notes handout
- Take Notes on Ions & Isotopes with worksheet
- Copy Activity 3 "Sugar or Salt?" set up in to Science notebook; Start Notes on chemical bonding

HW: Study for quiz on Thursday 09/21

TUESDAY 09/19/2017

- No Science & math classes today; extended class period for ELA NWEA & District writing assessment

HW: Complete Chemistry Part 1 Notes to help you study for quiz on Atomic structure, subatomic particles, Bohr model, and Lewis structures

MONDAY 09/18/2017

Objectives:

- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

What are valence electrons? How do you find the valence electrons for an element?

Agenda:

- Finish Periodic Table Basics Activity (35 mins)
- Discuss & Review Periodic Table Activity

Notice: Quiz on atomic structure, subatomic particles, Bohr model, Lewis structure & Periodic Table basics on Wednesday 09/20

FRIDAY 09/15/2017

Objectives:

- Students will understand and be aware of lab Safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

Where are Protons and neutrons found inside the atom?

Agenda:

- Work on periodic table basics activity
  - Work with your group to complete activity
  - Read and follow directions; every group member must contribute to activity

THURSDAY 09/14/2017

Objectives:

- Students will understand and be aware of lab safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

Name the three subatomic particles

Agenda:

- Finish notes on "the atom"
- Review video resources on the atom and atomic theory

WEDNESDAY 09/13/2017

Objectives:

- Students will understand and be aware of lab Safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

Are atoms visible to the unaided eye? Compare the size of an Atom to an every day object.

Agenda:

- Discuss & Review Activity 2 "The Flame Test" lab activity
- Continue notes on "The Atom"

TUESDAY 09/12/2017

Objectives:

- Students will understand and be aware of lab safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

Define the term atom.

Agenda:

- Take Attendance then go to Room 134 for lab activity
- Read, Listen & follow directions to complete Activity 2 "The Flame Test" lab

MONDAY 09/11/2017

Objectives:

- Students will understand and be aware of lab safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

What should you do before starting a lab activity?

Agenda:

- "Introduction to the Atom" PowerPoint presentation
  - Make Cornell Notes as you listen to presentation; listen & participate
- Copy Activity 2 "The Flame Test" lab set up in to Science notebook

FRIDAY 09/08/2017

Objectives:

- Students will understand and be aware of lab safety rules and procedures
- Students will investigate and be able to describe the basic structure of an atom
- Students will explain how changing the structure of an element can result in an isotope or a new element

White Space Question:

What did you do or experience for the first time this summer?

Agenda:

- Collect Course Syllabus signature page due today
- Take Lab Safety Rules and Procedures quiz
- Cornell Notes quick review with handout

THURSDAY 09/07/2017

Objectives:

- Students will understand and be aware of lab safety rules and procedures

Agenda:

- Shortened class period for Power Hour
- Discuss & review lab safety rules and procedures
- Sign student Lab Safety Contract
- Be ready for Lab Safety Rules and Procedures quiz Friday 09/08

HW:

- Review course syllabus with parents/guardians & turn in signature page to Mrs. Duddles by this Friday

WEDNESDAY 09/06/2017

Objectives:

- Students will understand CHAMPS classroom behavior & norms, and syllabus course expectations

Agenda:

- Conduct classroom housekeeping procedures: materials, syllabus, class expectations & norms, CHAMPS, etc
- Distribute science notebooks

HW:

- Review course syllabus with parents/guardians & turn in signature page to Mrs. Duddles by this Friday

TUESDAY 09/05/2017

- Half Day – Home Schools Only

MONDAY 09/04/2017

WCS District – Labor Day observance; class not in session