April Calendar 2013 **(2pts ec printing)**

7 Sun	**April 8** Monday **Hand back ALL WORK from this year** **Handout Hwk for Block Days 1 & 2 And Friday: This wk**	9 Tuesday **Day 1 HWK: Due** Investigation & Experimentation (Standard #9) Pd:1,3,4	10 Wednesday **Day 1 HWK: Due** Pd 5&6 **Day 2 HWK DUE** Structure of Matter (Std #3) **Due Pd 1**	11 Thursday **Day 2 HWK DUE** Structure of Matter (Std #3) **Due Pd 3,4,5,6**	12 Friday **Day 3 Hwk DUE:** Periodic Table: Standard #7 **ALL CLASSES** **Handout hwk for Next week**	13 Sat
14	15 State Sci Fair **Day 4 Hwk DUE:** Chemical Reactions (Standard #5) **ALL CLASSES**	16 State Sci Fair **Day 4 Continued** Chemical Reactions (Standard #5) **Pd:1,3,4**	17 **Day 4** Chem Rxns (Std #5) Cont Pd5&6 **Day 5 Hwk DUE:** Chemistry of Living Systems (Std #6) **Due Pd 1**	18 **Day 5 Hwk DUE:** Chemistry of Living Systems (Std #6) **Due Pd 3,4,5,6**	19 **Day 6: Hwk DUE:** Density & Buoyancy (Standard #8) **ALL CLASSES** **Handout hwk for Next week**	20
21	22 **Day 7 DUE:** Motion (Standard #1) **ALL CLASSES**	23 **Day 8 DUE:** Forces (Standard #2) **DUE: Pd:1,3,4**	24 **Day 8 DUE:** Forces (Standard #2) Pd 5&6 **Day 9 DUE:** Space Science (Standard #4) **Pd 1**	25 Gillum in Orlando **Day 9 DUE:** Space Science (Standard #4) **Due Pd 3,4,5,6**	26 Gillum in Orlando **Review Final: Part 1:** **ON: Standards:** **9 (day1) 3 (day2)** **7 (day3) 5 (day4)**	27
28	29 **Review Final: Part 2** **Standards: 6 (day5)** **8 (day6) 1 (day7)** **2 (day8) 4 (day9)** **HWK this week** **Brain Pop Review**	30 Testing Begins ELA 9:45-11:00 Pd 1-75 min LUNCH 11:05-11:40 11:45-1:00 Period 2 1:05-2:20 Period 3 Felix Mystery Begins	May1 Testing ELA 9:45-11:00 Pd 4-75 min LUNCH 11:05-11:40 11:45-1:00 Period 5 1:05-2:20 Period 6 Felix Mystery Begins	May 2 Testing History 10:20-11:25 Pd 1-65 min LUNCH 11:30-12:00 12:05-1:10 Period 2 1:15-2:20 Period 3 Felix Mystery	May 3 Testing Science 10:20-11:25 Pd 1-65 min LUNCH 11:30-12:00 12:05-1:10 Period 2 1:15-2:20 Period 3 **Notebk Due Mon** Felix Mystery	4
5	6 Testing Makeups Block schedule 1-2-3-4 **Notebk Due ALL CLASSES TODAY Before School** Felix Mystery	7 Testing Makeups Block schedule 5-6-1-2 Felix Mystery	8 Testing Makeups Block schedule 3-4-5-6 Felix Mystery	9 Testing Math 9:45-11:00 Pd 1-75 min LUNCH 11:05-11:40 11:45-1:00 Period 2 1:05-2:20 Period 3 Felix Mystery	10 Testing Math 9:45-11:00 Pd 4-75 min LUNCH 11:05-11:40 11:45-1:00 Period 5 1:05-2:20 Period 6 Felix Mystery	11

Day 1: Investigation & Experimentation (Standard #9)
Day 2: Structure of Matter (Standard #3)
Day 3: Periodic Table (Stand #7)
Day 4: Chemical Reactions (Stand#5)
Day 5: Chemistry of Living Systems (Standard #6)
Day 6: Density & Buoyancy (Standard #8)
Day 7: Motion (Standard #1)
Day 8: Forces (Standard #2)
Day 9: Space Science (Standard #4)

Homework is DUE on Dates Shown ABOVE in calendar
LATE WORK WILL RECEIVE 0 CREDIT

Final Review Exams: **NO NOTES FOR THESE EXAMS**
Part 1: Friday April 26th, Days 1-4 standards:
Part 2: Monday April 29th, Days 5-9 standards:

Review NOTEBOOK: Due Mon May6 Before School

Graded Exams will be handed back on Tues & Wed April 30th & May 1st in class.
You will keep your note book, the test/answers and your entire science folder to prepare for your state exam on Friday: May 3rd.
Your notebook is due on Monday May 6th before school

8th Grade Standards Review: JOURNAL TOPICS: Due on HWK Due Date

Day1: Investigation & Experimentation: Name the steps of the scientific method:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Day 2: Structure of Matter

1. **Draw the structure of a lithium atom.**
   Label the parts.
   (Lithium's atomic number is 3, its atomic mass is 7)

2. What is a compound? _____
_____
_____

3. What would the molecules look like in each of the states of matter below?

Solid	Liquid	Gas

Day 3: Periodic Table

a. List 3 differences between metals & nonmetals._____
_____

b. List 3 pieces of information that can be found on the periodic table of elements.
_____
_____

Day 4: Chemical Reactions: Use the equation to answer the questions:

$$2Mg + O_2 \rightarrow 2MgO + energy$$

List the reactants: _____ List the products: _____

a. Is this an example of an endothermic or exothermic reaction? Explain.
_____
_____

b. Are changes of state (freezing, boiling, melting) examples of physical or chemical changes?
_____
_____

c. How do you know whether a solution is acidic basic or neutral?
_____
_____

Day 5: Chemistry of Living Systems

a. Why is carbon an essential element for living things _____
_____

b. Name the 4 nucleic bases and who they bond with (a-t c-g) _____

Day 6: Density & Buoyancy :

Define density: _____

give an example: _____

Define buoyancy: _____

give an example: _____

Day 7: Motion

How do you know when something is in motion _____

_____

_____

What is the equation for speed?

How is velocity different from speed? _____

_____

_____

Name 3 ways velocity may change.

_____

_____

Day 8: Force

What is a force? _____

What is the equation for force?

Define the terms

SHOW YOUR WORK!

1. With what force will a car hit a tree if the car has a mass of 3,000 kg and it's accelerating at a rate of 2 m/s^2	2. A 10kg bowling ball would require what force to accelerate it down an alleyway at a rate of 3 m/s^2	3. What is the acceleration of a softball if it has a mass of .50 kg and hits the catcher's glove with a force of 25 Newtons?

Day 9: Space Science

- Draw & Label the 4 types of galaxies.

- What units do scientists use to measure distances in space? _____
- Draw & Label 4 different planets found in our solar system.

8th Grade Science Content Standards

Standard 1: Motion

1. The velocity of an object is the rate of change of its position.
As a basis for understanding this concept, students know:
a. position is defined relative to some choice of standard reference point and a set of reference directions.
b. average speed is the total distance traveled divided by the total time elapsed. The speed of an object along the path traveled can vary.
c. how to solve problems involving distance, time, and average speed.
d. to describe the velocity of an object one must specify both direction and speed.
e. changes in velocity can be changes in speed, direction, or both.
f. how to interpret graphs of position versus time and speed versus time for motion in a single direction.

Standard 2: Forces

2. Unbalanced forces cause changes in velocity.
As a basis for understanding this concept, students know:
a. a force has both direction and magnitude.
b. when an object is subject to two or more forces at once, the effect is the cumulative effect of all the forces.
c. when the forces on an object are balanced, the motion of the object does not change.
d. how to identify separately two or more forces acting on a single static object, including gravity, elastic forces due to tension or compression in matter, and friction.
e. when the forces on an object are unbalanced the object will change its motion (that is, it will speed up, slow down, or change direction).
f. the greater the mass of an object the more force is needed to achieve the same change in motion.
g. the role of gravity in forming and maintaining planets, stars and the solar system.

Standard 3: Structure of Matter

3. Elements have distinct properties and atomic structure. All matter is comprised of one or more of over 100 elements.
As a basis for understanding this concept, students know:
a. the structure of the atom and how it is composed of protons, neutrons and electrons.
b. compounds are formed by combining two or more different elements. Compounds have properties that are different from the constituent elements.
c. atoms and molecules form solids by building up repeating patterns such as the crystal structure of NaCl or long chain polymers.
d. the states (solid, liquid, gas) of matter depend on molecular motion.
e. in solids the atoms are closely locked in position and can only vibrate, in liquids the atoms and molecules are more loosely connected and can collide with and move past one another, while in gases the atoms or molecules are free to move independently, colliding frequently.
f. how to use the Periodic Table to identify elements in simple compounds.

Standard 4: Earth in the Solar System (Earth Science)

4. The structure and composition of the universe can be learned from the study of stars and galaxies, and their evolution.
As a basis for understanding this concept, students know:
a. galaxies are clusters of billions of stars, and may have different shapes.
b. the sun is one of many stars in our own Milky Way galaxy. Stars may differ in size, temperature, and color.
c. how to use astronomical units and light years as measures of distance between the sun, stars, and Earth.
d. stars are the source of light for all bright objects in outer space. The moon and planets shine by reflected sunlight, not by their own light.
e. the appearance, general composition, relative position and size, and motion of objects in the solar system, including planets, planetary satellites, comets, and asteroids.

Standard 5: Reactions

5. Chemical reactions are processes in which atoms are rearranged into different combinations of molecules.
As a basis for understanding this concept, students know:
a. reactant atoms and molecules interact to form products with different chemical properties.
b. the idea of atoms explains the conservation of matter: in chemical reactions the number of atoms stays the same no matter how they are arranged, so their total mass stays the same.
c. chemical reactions usually liberate heat or absorb heat.
d. physical processes include freezing and boiling, in which a material changes form with no chemical reaction.
e. how to determine whether a solution is acidic, basic or neutral.

Standard 6: Chemistry of Living Systems (Life Science)

6. Principles of chemistry underlie the functioning of biological systems.
As a basis for understanding this concept, students know:
a. carbon, because of its ability to combine in many ways with itself and other elements, has a central role in the chemistry of living organisms.
b. living organisms are made of molecules largely consisting of carbon, hydrogen, nitrogen, oxygen, phosphorus and sulfur.
c. living organisms have many different kinds of molecules including small ones such as water and salt, and very large ones such as carbohydrates, fats, proteins and DNA.

Standard 7: Periodic Table

7. The organization of the Periodic Table is based on the properties of the elements and reflects the structure of atoms.
As a basis for understanding this concept, students know:
a. how to identify regions corresponding to metals, nonmetals and inert gases.
b. elements are defined by the number of protons in the nucleus, which is called the atomic number. Different isotopes of an element have a different number of neutrons in the nucleus.
c. substances can be classified by their properties, including melting temperature, density, hardness, heat, and electrical conductivity.

Standard 8: Density and Buoyancy

8. All objects experience a buoyant force when immersed in a fluid.
As a basis for understanding this concept, students know:
a. density is mass per unit volume.
b. how to calculate the density of substances (regular and irregular solids, and liquids) from measurements of mass and volume.
c. the buoyant force on an object in a fluid is an upward force equal to the weight of the fluid it has displaced.
d. how to predict whether an object will float or sink.

Standard 9: Investigation and Experimentation

9. Scientific progress is made by asking meaningful questions and conducting careful investigations.
As a basis for understanding this concept, and to address the content the other three strands, students should develop their own questions and perform investigations. Students will:
a. plan and conduct a scientific investigation to test a hypothesis.
b. evaluate the accuracy and reproducibility of data.
c. distinguish between variable and controlled parameters in a test.
d. recognize the slope of the linear graph as the constant in the relationship y=kx and apply this to interpret graphs constructed from data.
e. construct appropriate graphs from data and develop quantitative statements about the relationships between variables.
f. apply simple mathematical relationships to determine one quantity given the other two (including speed = distance/time, density = mass/volume, force = pressure x area, volume=area x height).
g. distinguish between linear and non-linear relationships on a graph of data.