8th Grade Science
Sharyland North JR. HIGH
2016-2017

Instructor: Amanda Tijerina
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Class Schedule: Monday-Friday

1st- Science Pre-AP	5th- Science
2nd- Science & Inclusion	7th- Science Pre-AP
3rd- Science Pre-AP	8th- Science
4th- Conference	9th- Science Academy

TUTORING: MONDAY-THURSDAY except WEDNESDAY
4:00PM-4:30PM
Room # 124

Academic dishonesty will result in a grade of F.

CHAPTERS AND CH. SECTIONS WILL BE COMBINED TO FORM THE UNITS NOT ALL CHAPTERS/SECTIONS WILL BE COVERED

Class Work Activities: vocabulary terms, study questions, study guide, reinforcement and enrichment master handouts, other resource handouts as required per chapter/section. Laboratory investigations and research projects will be done as appropriate per chapter/section in each unit. Other curriculum sources (Edusmart, sci-tech lab, cscope, Measuring Up, & stemscope will be used to help students to master STAAR objectives.

All class work, homework, labs, and activities are subject to change

1st 6 weeks (August 22-Septemeber 30)

Unit 1 Lab Safety and Tools
Chapter 1 Using Scientific Inquiry

Unit 2 Atoms
Chapter 2 Elements & The Periodic Table

Unit 3 Periodic Table
Chapter 2 Elements & The Periodic Table

Labor Day: 09/05/2016

2nd 6 weeks (October 03-November 04)

Unit 4 Chemical Formulas, Equations, and Reactions
Chapter 3 Chemical Reactions

Columbus Day: 10/10/2016

Unit 5 Forces and Motion & Unit 6 Newton's Laws of Motion
Chapter 4 Forces

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3rd 6 weeks (November 07-December 21)

Thanksgiving Break (Nov. 21-25) & Christmas Break (Dec. 22-Jan. 06)

Unit 07 Forces that changes Earth

Chapter 7 Plate Tectonics
Chapter 8 Mapping Earth's Surface

Density Concept

Unit 08 Climatic Interactions

Chapter 9 The Atmosphere

4th 6 weeks (January 09-February 17)

Unit 08 Climatic Interactions

Chapter 10 The Weather
Chapter 11 Ocean Systems

Unit 9 Earth Cycles

Chapter 5 Earth, Moon, & Sun

Unit 10 Light Years and Theories & Unit 11 Characteristics of the Universe

Chapter 6 Stars, Galaxies, & the Universe

Unit 12 Interdependence Among Living Systems

Chapter 12 Living Systems &the Environment

5th 6 weeks (February 21-April 7)

Bad Weather Day (02/20)
Spring Break: March 13-17/2017; Easter Break (Aril 14 & 17);

Spiral/STAAR Review

6th 6 weeks (April 10-May 25)

Spiral/STAAR Review Cont.- Science STAAR will be on May 10

Unit 13 Experimental Design

Chapter 1 Using Scientific Inquiry

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Course Description

- To develop a rich knowledge of science and the natural world, students must become familiar with different modes of scientific inquiry, rules of evidence, ways of formulating questions, ways of proposing explanations, and the diverse ways scientists study the natural world and propose explanations based on evidence derived from their work.
- Scientific investigations are conducted for different reasons. All investigations require a research question, careful observations, data gathering, and analysis of the data to identify the patterns that will explain the findings. Descriptive investigations are used to explore new phenomena such as conducting surveys of organisms or measuring the abiotic components in a given habitat. Descriptive statistics include frequency, range, mean, median, and mode. A hypothesis is not required in a descriptive investigation. On the other hand, when conditions can be controlled in order to focus on a single variable, experimental research design is used to determine causation. Students should experience both types of investigations and understand that different scientific research questions require different research designs.
- Scientific investigations are used to learn about the natural world. Students should understand that certain types of questions can be answered by investigations, and the methods, models, and conclusions built from these investigations change as new observations are made. Models of objects and events are tools for understanding the natural world and can show how systems work. Models have limitations and based on new discoveries are constantly being modified to more closely reflect the natural world.
- Matter and energy. Students recognize that matter is composed of atoms. Students examine information on the Periodic Table to recognize that elements are grouped into families. In addition, students understand the basic concept of conservation of mass. Lab activities will allow students to demonstrate evidence of chemical reactions. They will use chemical formulas and balanced equations to show chemical reactions and the formation of new substances.
- Force, motion, and energy. Students experiment with the relationship between forces and motion through the study of Newton's three laws. Students learn how these forces relate to geologic processes and astronomical phenomena. In addition, students recognize that these laws are evident in everyday objects and activities. Mathematics is used to calculate speed using distance and time measurements.
- Earth and space. Students identify the role of natural events in altering Earth systems. Cycles within Sun, Earth, and Moon systems are studied as students learn about seasons, tides, and lunar phases. Students learn that stars and galaxies are part of the universe and that distances in space are measured by using light waves. In addition, students use data to research scientific theories of the origin of the universe. Students will illustrate how Earth features change over time by plate tectonics. They will interpret land and erosional features on topographic maps. Students learn how interactions in solar, weather, and ocean systems create changes in weather patterns and climate.
- Organisms and environments. In studies of living systems, students explore the interdependence between these systems. Interactions between organisms in ecosystems, including producer/consumer, predator/prey, and parasite/host relationships, are investigated in aquatic and terrestrial systems. Students describe how biotic and abiotic factors affect the number of organisms and populations present in an ecosystem. In addition, students explore how organisms and their populations respond to short- and long-term environmental changes, including those caused by human activities.

Required:

Textbook: **Pearson Interactive Science Grade 8**

Other texts and resources as required

- 1-three ring Binder-1 inch with 6 dividers—1pkg of wide ruled three hole paper, copier paper (optional), graph paper, 3-solid color folders with pockets and brads
- 1 pkg. of colored pencils, #2 lead pencils with eraser, red ball pens for grading, colored markers
- Ruler with metric system
- Students are responsible for all materials presented in class, including announcements about changes in course procedures.
- Students might have to participate in bringing household materials (for example sugar, baking soda, milk, oil, coffee, vinegar, ammonia, detergent etc.) to be used in lab activities.
- **1 box of Kleenex and 1 bottle of hand sanitizer-2nd period only.**

Attendance:

Student is responsible for all material presented in class, including announcements about course procedures. Exams, quizzes, and homework often include questions on material presented only in class, so performance on these indirectly reflects attendance. See tutoring schedule above if absent to make up work missed.

- The student is responsible to keep his/her parent(s) informed of their progress in science class. Failing class progress reports will be given to any student that is failing at mid six weeks period. It is the student's responsibility to have the parent review and sign the progress report.
- Student is responsible to keep a binder. The binder will include all information concerning school and class rules/regulations. The binder will help the student to be organized with all assignments for science class and will be graded and required whenever a teacher/student/parent conference is held.
- **Parents are encouraged to call the teacher for a conference when they receive the three-week failing progress report from both the teacher and the school. A failing progress report will be sent home with the student during the fourth/fifth week of each six weeks if the student is in danger of failing the class.**
- **Student is responsible for textbook. If lost, student must inform teacher immediately.**

Classroom and Lab Policies & Procedures

A. Major Assignments: 60%

I. Tests & Projects:

A. Test will be given upon completion of a chapter or unit.

B. Ample time will be allowed in class to review the test.

C. Reteaching and retesting will be done according to school policy.

D. Retesting does not apply to class work, homework, lab work, projects, and quizzes.

B. Minor Assignments: 40%

II. Class work & Homework:

A. Class work & Homework may include any other activity the teacher chooses to label as Class work.

B. Assignments are due at the beginning of the class.

C. Late work will be accepted according to district's grading policy.

D. The policy for accepting the late work due to excused absences follows the school policy.

III. Lab work & Quizzes:

A. Detention or lab grade of a "0" may be given for not following the lab safety rules.

B. Students are not allowed to break or damage the lab equipment. If they do so, they may require replacing the equipment/Detention or office referrals may be assigned also.

C. Students are recommended to notify the teacher for planned absences.

IV. Notebooks:

A. One 3-ring binder will be kept to include:

1. Notes
2. Class work/Homework
3. Lab work
4. Quizzes
5. Projects
6. Study guides/Tests

B. Notebooks will be graded for completeness, neatness, and organization.

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It is recommended that you record names and phone numbers of at least two other class members:

Friends' Name and Phone #:

1. _____

2. _____

Parent's Signature:

Remind

What is Remind?

Remind is a simple way for you to stay informed and up-to-date with what's happening in your class. By joining your teacher's class on Remind, you're choosing to receive class messages via push notifications, SMS, or email. Don't worry because your phone number will not be shared with the teacher or anyone else in the class. Remind also generates a number for the teacher to use so their number stays private as well. I highly recommend you join your class so you don't miss out on important announcements or reminders. Be sure to join the correct class Science or IPC or GTT or TMSCA. If you need assistance signing up or have any questions please feel free to contact me. Follow these steps to join Science or IPC or GTT or TMSCA class:

Join via text:

- **Science** students enter this number 81010 or (469) 507-2942 with message @atijerina

Join via email:

- **Science** students send e-mail To: atijerina@mail.remind.com or Go to rmd.at/atijerina on a desktop computer to sign up for email notifications.

Parents please check off the corresponding box and sign to authorize your child to receive these notifications.

- ○ I do give permission for my child to participate in Remind messaging.
- ○ I do not give permission for my child to participate in Remind messaging, should my child sign up without my permission I will not hold Ms. Bhatti accountable.

Student Name (print):_____ Signature: _____

Parent Name (print):_____ Signature: _____

Date: _____ Class Pd: _____ Subject: _____