**8th Grade Science**

**Sharyland North JR. HIGH**

**2017-2018**

**Instructor: Marina Aguilar Class Schedule: Monday-Friday**

**Office: 5100 Dove Ave, Rm. # 121** 1st- Science Pre-AP 5th- Science Academy

**Phone**: 686-1415 (Ext: 3567) 2nd- Regular Sci. 7th- Science Pre-Ap

**HW website:** [www.Sharylandisd.org](http://www.Sharylandisd.org) 3rd-Regular Sci. 8th- Conference

**E-Mail:** maguilar@sharylandisd.org 4th- Science Pre-AP 9th - Athletics

**TUTORING: MONDAY-THURSDAY**

4:00PM-4:30PM

**Room # 121**

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 28-October 06)**

**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

**2nd 6 weeks (October 10-November 10)**

**Unit 4 Chemical Formulas, Equations, and Reactions**

Chapter 3 Chemical Reactions

**Columbus Day: 10/09/2017**

**Unit 5 Forces and Motion & Unit 6 Newton’s Laws of Motion**

Chapter 4 Forces

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**3rd 6 weeks (November 13-December 22)**

**Thanksgiving Break (Nov. 20-24) & Christmas Break (Dec. 25-Jan. 09)**

**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 10-February 23)**

**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 26-April 20)**

**Spring Break: March 12-16/2018; Easter Break (March 30);**

**Spiral/STAAR Review**

**6th 6 weeks (April 23-May 31)**

**Spiral/STAAR Review Cont.- Science STAAR will be on May 16**

**Unit 13 Experimental Design**

Chapter 1 Using Scientific Inquiry

**Bad Weather Day (May 28)**

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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.

**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 District/school policy.

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

**B. Minor Assignments: 40%**

**II. Class work & Homework:**

1. Class work & Homework may include any other activity the teacher chooses to label as Class work.
2. Assignments are due at the beginning of the class.
3. Late work will be accepted according to district’s grading policy.
4. The policy for accepting the late work due to excused absences follows the District/school policy.

**III. Lab work & Quizzes:**

1. Detention or lab grade of a “0” may be given for not following the lab safety rules.
2. 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.
3. Students are recommended to notify the teacher for planned absences.

**IV. Notebooks:**

1. One composition notebook 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.

**Required:**

Textbook: **Pearson Interactive Science Grade 8**

Other texts and resources as required

* 1-composition notebook
* 4 AA batteries
* **1 box of Kleenex and 1 bottle of hand sanitizer**

**Attendance:**

Student is responsible for all materialpresented 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.**

**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. If you have any questions please feel free to contact me. Follow these steps to join Science class:

**Join via text:**

* **Science students enter this number 81010 or (972) 810-7624 with message @b80408**

**Join via email:**

* **Science students send e-mail To:** [**b80408@mail.remind.com**](mailto:b80408@mail.remind.com) **to sign up**

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: \_\_

**Parent’s Signature:**

**DATE:**