# Course Syllabus

Cicely Tyson Middle/High School
Title- Grade 7 Science
Days of the Week-MTWTHF
Full year/Semester Course
Credit hours: 5.0

Teacher-Mr. Leon
School phone number: (973) 414-8600
Room Number- 303
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**Welcome and Introduction**

"Welcome to "Middle School Science". I'm your instructor, Mrs. Williams-Wong. We'll be together for the next YEAR of courses. In this course, we'll come together to help you learn to about topics entitled "Nature of Wave"

**Course Goals/Essential Questions**

What factors interact and influence weather and climate? What are the processes involved in the cycling of water through Earth's systems?
What is the relationship between the complex interactions of air masses and changes in weather conditions? What are the major factors that determine regional climates?

How does the ocean exert influence on weather and climate? How does "greenhouse effect" help keep regulate the Earth's surface temperatures?
What causes significant climate changes and how does it affect our world?

How do we study global climate?
What role does the water cycle play in determining weather patterns?
How do the properties and movements of water shape Earth's surface and affect its systems?
What role does water play in dissolution and formation of Earth's materials?
How does Earth's atmosphere affect life on Earth?
How do scientists describe and predict weather?
What is climate and how does it impact life on Earth?

**Methods of Instruction**

Science is a very rigorous course of study, subsequently various methods will be utilized to maximize student achievement. Instructional methods that will be employed in this subject area; include lectures, whole group instruction, group discussions, teamwork, hands-on activities, experiments, learning stations, presentations (oral &written) technology usage and other relevant teaching methods.

**Course Component Specifics**

**Course Policies**

Classroom Expectations: It is the responsibility of everyone in the classroom to help create and maintain a positive learning environment in which all members feel safe, secure, and valued as unique individuals. It is the teacher's role to help students develop an awareness of other people's needs, and to guide students in selecting appropriate behavior to fit different social situations.

Students are expected to take care of bathroom and locker issues before coming to class. In case an emergency situation arises, students will be allowed to leave with permission and a pass.

**Discipline:** Disrespect will NOT be tolerated in the classroom. Students who are disrespectful will receive immediate disciplinary action. Students are required to comply with the rules in the student handbook as well as rules set by the teacher. Students must respect the opinions and property of their peers and the teacher. Students are not allowed to yell, shout, or use the word SHUT UP in the classroom. A graduated discipline plan has been developed for the students' benefit and will be posted.

**Assignments:** Plagiarism and cheating have no place in a community of scholars. Have the confidence in yourself to give your original best. High school is a time for students to accept more responsibility for their own learning as well as develop habits and attitudes that will enable them to be successful in college, and their future careers. For this reason we will be working throughout the school year to develop good work habits. The following guidelines will help students be successful in science class:

**Deadlines**: It is the students responsibility to budget their time in order to complete assignments and turn
them in on time. For each day an assignment is late, the student will lose 10 points.

**Homework**: Students will be given homework assignments throughout the year. Some of these assignments will be specific assignments that are due at the beginning of the following class period. Other assignments will be long term and will require students to turn in pieces as they are completed. Each student is responsible for completing assignments in atimely manner.

**Attendance and Make-Up Work**
Class attendance is mandatory for all students. However in light of absences, students are expected to make up all assignments given while they are absent! It is the *student's responsibility* to check with the teacher to find out what needs to be made up, negotiate deadlines, and ask or additional help when needed. Students must make up all assignments missed due to excused absences. Students must turn in homework assigned prior to their absence the day they return and homework assigned during their absence the day after they return, unless the teacher extend the deadline because of unusual circumstances. Students who miss class are expected to get notes from classmates, make-up assignment(s) or the missing lab after school unless other arrangements have been made with the teacher.
Absences are recognized for the following reasons:

1. Absences to participate in official school/district activities (performances, field trips, athletic events, etc.)
2. Absences for medical reasons
3. College Visits
4. Pass indicating with Administrator/Guidance/Nurse/CST/Social Worker/Discipline
5. Passes indicating you are with another teacher must be cleared first by the period teacher if you are planning to be more than 10 min. late (optional wording).

**Course Requirements and Grading**

Grades will be based on points assigned to classwork, homework, quizzes, tests, projects, unit performance tasks, projects, labs, research, exit slips abd student participation. Student grades will be based on the percentage of points earned out of the
total possible points. Grades are assigned on the traditional grading scale:
90-100% = A 80-89% = B 70-79% = C 65-69%= D Below 65%= F

Students are responsible for keeping up with their current class average. Parents and guardians are provided with electronic access to view their child's grades from the online district operated system called FOCUS.

The student cycle grades are determined using these general guidelines:

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| Tests | 20% |
| Quizzes | 15% |
| Class Work | 15% |
| Class Participation | 20% |
| Homework | 10% |
| PBL/ Unit Performance Task(s) | 20% |
| | 100% |

- ***The first project (PBL) should be assigned by Nov.1st for a full year courses and Oct. 1st for a semester course.***
- You will receive tests that will administered weekly assessments
- District benchmarks will be given at the beginning of the year
- District midterm will be given in the middle of the school year
- District final exams will be given in April.

**Opportunities for Extra Support**
By appointment or give hours/After school/lunch time

**How to Reach Me**
Please see the information on the top of this syllabus.

Date of the 1st Parent/Teacher meeting: This will be our back to school night schedule for November. This will be mandatory for all teachers and fall after report cards are scheduled to go home. Date will be provided. Please leave a section on your syllabus.

**Required text/E-book/Online Resources Used**
Holt: Science & Technology – Inside the Restless Earth, Textbook F

Online Resource Used (Achieve3000, IXL, E-science, etc.)
http://nemo.sciencecourseware.org/eec/Earthquake/ Students can work in groups/partners to complete this lab activity and receive a Seismologist Certification when all tasks are performed.

**Supplies: Course Materials**

- Textbook (Holt: Science & Technology – Textbook A-O)

- Laboratory Notebook
- Class Notebook
- Students' Work Folders (Green)
- Laboratory Folders (Blue)
- Assessment Folders (Red)
- Portfolio Folders (Yellow)
- Pen/Pencil
- Calculator

**EAST ORANGE SCHOOL DISTRICT 2017/18 MIDDLE SCHOOLS (6-8)**

**SCIENCE SEQUENCING MATRIX**

# GRADE 7

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| Unit 1 | *Rituals, Routines, Lab Safety, Scientific Method, Engineering Design Method, 5E Instructional Model* **Weather and Climate**<br><br>Chapter 12: Earth's Atmosphere<br>● *Describing Earth's Atmosphere*<br>● *Energy Transfer in the Atmosphere*<br>● *Air Currents* Chapter 13: Weather<br>● *Describing Weather*<br>● *Weather Patterns*<br>● *Weather Forecasts* Chapter 14: Climate<br>● *Climates of the Earth*<br>● *Climate Cycles*<br>● *Recent Climate Changes* | **Earth Science** | **30 days** | **cycle 1** |
| Unit 2 | **Heredity, Natural Selection & Adaptation & Evolution**<br><br>Chapter 4: Reproduction of Organism<br>● *Sexual Reproduction & Meiosis*<br>● *Asexual Reproduction* Chapter 5: Genetics<br>● *Mendel and His Peas*<br>● *Understanding Inheritance*<br>● *DNA & Genetics* Chapter 6: The Environment & Change<br>● *Fossil Evidence of Evolution*<br>● *Theory of Evolution By Natural Selection*<br>● *Biological Evidence of Evolution* ****Accelerated Learners****** Chapter 10: Clues to the Earth's Past Chapter 11: Geologic Time | **Life Science** | **30 Days** | **cycle 1 & 2** |
| Unit 3 | **Matter, Energy & Relationships in**<br><br>**Organisms and Ecosystems**<br><br>Chapter 20: Matter and Energy in the Environment<br>● *Abiotic Factors* | **Life Sc** | **30 Days** | **Cycle 2** |

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| | ● *Cycles of Matter*<br>● *Energy in Ecosystems* Chapter 21: Population and Communities<br>● *Populations*<br>● *Changing Populations*<br>● *Communities*Chapter 22: Biomes and Ecosystems<br>● *Land Biomes*<br>● *Aquatic Ecosystems*<br>● *How Ecosystems Change* | **ience** | | |
| Unit 4 | **Structure and Properties of Matter**<br>Chapter 7: Foundations of Chemistry<br>● *Classifying Matter*<br>● *Physical Properties* Chapter 8: States of Matter<br>● *Solids, Liquids & Gases*<br>● *Changes in State*<br>● *The Behavior of Gases* Chapter 9: Understanding Atoms<br>● *Discovering Parts of an Atom*<br>● *Protons, Neutrons & Electrons* Chapter 10: The Periodic Table<br>● *Using the Periodic Table* | **Physical Science** | **45 days** | **Cycle 3** |
| Unit 5 | **Chemical Reactions**<br>Chapter 11: Elements & Chemical Bonds<br>● *Electrons & Energy Level*<br>● *Ionic & Metallic Bonds*<br>● *Compounds, Chemical Formulas & Covalent Bonds* Chapter 12: Chemical Reactions<br>● *Understanding Chemical Reactions* | **Physical Sci** | **45 Days** | **Cycle 4** |

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| | • *Types of Chemical Reaction*<br><br>• *Energy Changes and Chemical Reactions* Chapter 13: Mixtures, Solubility, & Acid/ Base Solutions<br><br>• *Substances and Mixtures*<br><br>• *Properties of Solutions (Accelerated Learners: Earth Science, Chapter 15, Lesson 2: Properties of Water)*<br><br>• *Acids and Bases* | **e n c e** | | |
| **180 days** | | | | |