**Kahlil Gibran School**

**Course Outline & Expectations**

**Math & Science – Grade 6**

**Ms. Romano**

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**Behavior:**

Proper classroom behavior is always expected of all students. No student should, at any time, disrupt the learning of any other student. The Yonkers Public Schools Conduct & Discipline Code will be followed and enforced along with the school and classroom rules.

**Tests:**

Students will be given notice at least 1-2 days prior to most of the tests/quizzes given this year. However, sometimes pop-quizzes/skill-based assessment will be administered with no advance notice. This is one of the reasons why homework is so important.

If you’d like to request a test retake, please make an appointment for a parent conference so we can discuss the necessity for the retake as well as other ways we can support your child.

**Supplies:**

A list of supplies is attached. Please be sure that your child has the necessary supplies each day. If you need a new copy, you can find it on the school website or you can have your child, ask for a new copy at school.

**Attendance and Punctuality:**

It is vital to attend class on time every day. Have the number of someone in your class who you can call if an absence is unavoidable. All notes, readings and written classwork / homework assignments must be made up upon your return.

**Notebooks:**

Notebooks must be kept organized, neat and should be treated as a reference/written log of the student’s learning. A neat and organized notebook will assist and promote good study habits.

**Homework Policy:**

Homework is given to reinforce the day's lesson. Homework will be checked and reviewed in class. A homework grade, based on the percentage of assignments completed, will be averaged into each trimester's report card grade; therefore, missed homework will cause your child's grade to be lowered.

If your child forgets to complete their math or science homework, they can submit it the next school day. If your child fails to complete homework consistently, I will contact you through Class Dojo or by email to discuss how we can better support your child.

**Grading Policy:**

 Trimester math & science grades will be based on formative and summative assessments in the form of tests, quizzes, projects, and classwork, as well as a homework grade. Traditional and digital assessments and assignments will be utilized.

Grading is as follows.

A = 90-100

B = 80-89

C = 70-79

D = 65-69

F = 0-64

**Birthday Celebrations:**

 Due to time restrictions and concerns about food allergies, we are unable to accommodate birthday celebrations at school.

**Math – Grade 6**

This year we will be using the i-Ready Classroom program. All students will receive their workbooks as we use them. This program has many other components and resources which will be available on the website and on my clever page.

We will be following the New York State Next Generation Mathematics Learning Standards which are outlined below.

**New York State Next Generation Mathematics Learning Standards (2017) - Grade 6 Overview**

1. Through their learning in the **Ratios and Proportional Relationships** domain, students:

* use reasoning about multiplication and division to solve ratio and rate problems about quantities,
* connect understanding of multiplication and division with ratios and rates by viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities; and
* expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions.

2. Through their learning in the **Number System** domain, students:

* use the meaning of fractions and relationships between multiplication and division to understand and explain why the procedures for dividing fractions make sense,
* extend their previous understandings of number and the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, particularly negative integers; and
* reason about the order and absolute value of rational numbers and about the location of points on a coordinate plane.

3. Through their learning in the **Expressions, Equations, and Inequalities** domain, students:

* write expressions and equations that correspond to give situations, using variables to represent an unknown and describe relationships between quantities,
* understand that expressions in different forms can be equivalent, and use the properties of operations to rewrite and evaluate expressions in equivalent forms; and
* use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations.

4. Through their learning in the **Geometry** domain, students:

* find areas of polygons, surface areas of prisms, and use area models to understand perfect squares; and
* extend formulas for the volume of a right rectangular prism to fractional side lengths and use volume models to understand perfect cubes.

5. Through their learning in the **Statistics and Probability** domain, students:

* learn to describe and summarize numerical data sets, identifying clusters, peaks, gaps, and symmetry, considering the context in which the data were collected; and
* understand the probability of a chance event and develop probability models for simple events.

Mathematical Practices

1. Make sense of problems and persevere in solving them.

2. Reason abstractly and quantitatively.

3. Construct viable arguments and critique the reasoning of others.

4. Model with mathematics.

5. Use appropriate tools strategically.

6. Attend to precision.

7. Look for and make use of structure.

8. Look for and express regularity in repeated reasoning.

**Science – Grade 6**

This year we will be using the HMH Science program. All students will receive their workbooks as we use them. This program has other online components and resources which will be available through my clever page.

**Next Generation Science Learning Standards – YPS Grade 6 Curriculum**

**Structure and Properties of Matter**

MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures.

MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and phase (state) of a substance when thermal energy is added or removed.

MS-PS1-7. Use evidence to illustrate that density is a property that can be used to identify samples of matter.

MS-PS1-8. Plan and conduct an investigation to demonstrate that mixtures are combinations of substances.

**Chemical Reactions**

MS-PS1-2. Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

MS-PS1-5. Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.

MS-PS1-6. Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy during a chemical and/or physical process.

**Forces and Interactions**

MS-PS2-1. Apply Newton’s Third Law to design a solution to a problem involving the motion of two colliding objects.

MS-PS2-2. Plan and conduct an investigation to provide evidence that the change in an object’s motion depends on the sum of the forces on the object and the mass of the object.

MS-PS2-3. Ask questions about data to determine the factors that affect the strength of electric and magnetic forces.

MS-PS2-4. Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects and the distance between them.

MS-PS2-5. Conduct an investigation and evaluate the experimental design to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.

 **Energy**

MS-PS3-1. Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.

MS-PS3-2. Develop a model to describe that when the arrangement of objects interacting at a distance changes, different amounts of potential energy are stored in the system.

MS-PS3-3. Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

MS-PS3-4. Plan and conduct an investigation to determine the relationships among the energy transferred, the type of matter, the mass, and the change in the temperature of the sample of matter.

MS-PS3-5. Construct, use, and present an argument to support the claim that when work is done on or by a system, the energy of the system changes as energy is transferred to or from the system.

MS-PS3-6. Make observations to provide evidence that energy can be transferred by electric currents.

**Waves and Electromagnetic Radiation**

MS-PS4-1. Develop a model and use mathematical representations to describe waves that includes frequency, wavelength, and how the amplitude of a wave is related to the energy in a wave.

MS-PS4-2. Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

MS-PS4-3. Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals.

**Grade 6 Supply List**

**General Supplies**

* **Accordion Folder** (plastic with 5-6 pockets)
* **Earbuds** (standard for use with pc-laptops)
* **Loose-leaf paper** (continuous supply)
* **Pens** (Black/Blue/Red)
* **Pencils** (continuous supply)
* **Homework planner**
* **Glue sticks** (6-12 sticks)
* **School scissors**
* **Colored pencils or crayons**
* **Markers**
* **Highlighters**
* **Pen/Pencil storage bag**
* **1 pack/pad of construction paper** (multi-color)
* **1 Roll of paper towel** (for homeroom class)
* **4 large boxes of tissue** (for homeroom class)
* **1 Lysol/Clorox disinfecting wipes** (for homeroom class)
* **2 large packs of baby wipes** (for homeroom class)

**Math & Science Supplies**

* 2 composition notebooks
* 6 pack Expo Dry Erase Markers

**ELA and Social Studies Supplies**

* One 5-subject spiral notebooks (at least 150-200 pages; Mead or Excel preferred/ durable plastic cover)
* One 3-subject spiral notebooks (at least 120 pages; Mead or Excel preferred/ durable plastic cover)
* 1 Composition notebook
* Access to news articles (internet/newspapers/magazines)