

# 8th Grade Science

Syllabus 2022-2023



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## **Note:**

Please keep in mind that things change unexpectedly from time to time throughout the school year. Some of the following policies may change or may not be applicable as we go through this school year. Your patience in this matter is appreciated!

## **Teacher Schedule:**

Homeroom	7:40-7:50am
1st Period (RTI)	7:55-8:40am
2nd Period	8:45- 9:50am
3rd Period	9:55-11:00am
4th Period and Lunch	11:05-12:35pm
5th Period	12:40-1:45pm
6th Period -Activity	1:50-3:00pm Early Buses-1st Bell Walkers, Car riders and Late Buses -2nd Bell

## **Classroom Rules and Expectations/Discipline Policy:**

### **Classroom Rules:**

1. Be on time!
2. Be Ready! (have paper, pencil, charged Chromebook , textbook, and appropriate supplies in class each day!)
3. Be Responsible! (have assignments, follow classroom procedures, proper manners, and appropriate attitude-- follow dress code)
4. Be Respectful! (no bullying!! This includes teasing, cursing or harassing any other person)
5. Students will not be allowed to have cell phones on their person during instructional time.

### **Consequences:**

1. Warning
2. Lunch detention. (Students will be required to eat alone.)
3. Students may be sent to the office. (ISS, OSS, Alternative School, or paddling may be assigned)
4. Students may be omitted from classroom activities, field trips, or other rewards.

### **Rewards:**

1. Verbal acknowledgement.
2. Self satisfaction.
3. A predetermined reward. (movie, free time outside, special privileges during lunch, the opportunity to purchase items from snack machines, trips, etc.)

\*\* Our goal is to provide a stress-free learning environment for our students, and to ensure a pleasant and orderly classroom atmosphere. Thank you for your help and support in our efforts.

### **Course Expectations:**

1. Participation is a must! Students should listen attentively, take notes, AND ask questions.
2. Idleness will not be acceptable. Students should use their time effectively, and stay focused.

3. Ask for help when you get stuck! I am more than willing to help.
4. I expect everyone to try, try, and TRY. You accomplish more when you try.
5. I expect everyone to come to class prepared and take pride in their work.
6. Cell phones will NOT be used during class time.
7. Respect your neighbors. Treat them the same as how you would want to be treated.

### **Grading Policy:**

1. Zeroes are **not** acceptable.
2. **Classwork/Homework:** It will be my goal to get most work done in class. Any class work not completed will be taken home to be finished and turned in the next day. This may include things like finishing vocabulary, finishing journal work, or occasionally worksheets. Therefore, if your child is a slow worker, they will have more work to complete at home. If it is not turned in at the required time, 10 points will be deducted for each day that it is late.
3. **Tests:** Tests will be given at the end of the chapter, or unit. Students will be required to make up all missed tests in a timely manner.
4. **Progress Reports:** Progress reports will be sent home at the mid-nine weeks point, or sooner if an unacceptable pattern seems to appear.

### **Grading Scale:**

A -> 90-100  
B -> 80-89  
C -> 70-79  
D -> 60-69  
F -> 60 and below

Parents will be allowed to check Synergy as often as you like to check on the student's grades in Science. You will need to call the school office to receive instructions and possibly a code.

### **Make-up Work Policy:**

\_\_\_\_\_ Students are responsible for making up any assignments missed due to absence. The teacher is not responsible for asking a student for missed work. Students must ask for missed assignments the day they return to school, and they are given two days for each day missed to complete make-up work.

### **Classroom Supply List:**

Paper (Loose Leaf (Preferably College Rule)  
Pencils (several)  
Folder

### **Major Assignments and Field Trips (if applicable):**

All assignments will be considered major as they will serve as practice in maintaining and displaying newly acquired knowledge, in building stamina to drive future possibilities, and in preparation of state mandated tests.

### **Standards/Topics Covered & Course Calendar:**

Chapter	Time Frame	Standards	Major Topics/Concepts	% of Blueprint
1	Week 1 Q1	8.PS2.3 8.PS2.4 8.PS2.5	<ul style="list-style-type: none"> <li>Create a demonstration of an object in motion and describe the position, force, and direction of the object.</li> <li>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</li> <li>Evaluate and interpret that for every force exerted on an object there is an equal force exerted in the opposite direction.</li> </ul>	8.PS2/8.PS4 34-36%
2	Week 2 Q1	8.PS2.1 8.PS2.2	<ul style="list-style-type: none"> <li>Conduct an investigation to provide evidence that fields exist between objects exerting forces on each other even though the objects are not in contact.</li> <li>Design and conduct investigations depicting the relationship between magnetism and electricity in electromagnets, generators, and electrical motors, emphasizing the factors that increase or diminish the electric current and the magnetic field strength.</li> </ul>	8.PS2/8.PS4 34-36%
3	Week 3-4 Q1	8.PS4.1 8.PS4.2	<ul style="list-style-type: none"> <li>Develop and use models to represent the basic properties of waves including frequency, amplitude, wavelength, and speed.</li> <li>Compare and contrast mechanical waves and electromagnetic waves based on refraction, reflection, transmission, absorption, and their behavior through a vacuum and/or various media.</li> </ul>	8.PS2/8.PS4 34-36%
4	Week 5-6 Q1	8.PS4.2 8.PS4.3	<ul style="list-style-type: none"> <li>Compare and contrast mechanical waves and electromagnetic waves based on refraction, reflection, transmission, absorption, and their behavior through a vacuum and/or various media.</li> <li>Evaluate the role that waves play in different communication systems.</li> </ul>	8.PS2/8.PS4 34-36%

<b>5</b>	Week 7-8 Q1	8.ESS1. .2	<ul style="list-style-type: none"> <li>Explain the role of gravity in the formation of our sun and planets. Extend this explanation to address gravity's effect on the motion of celestial objects in our solar system and Earth's ocean tides.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
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<b>Chapter</b>	<b>Time Frame</b>	<b>Standards</b>	<b>Major Topics/Concepts</b>	<b>% of Blueprint</b>
<b>6</b>	Week 9-10 Q2	8.ESS1 .2	<ul style="list-style-type: none"> <li>Explain the role of gravity in the formation of our sun and planets. Extend this explanation to address gravity's effect on the motion of celestial objects in our solar system and Earth's ocean tides.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
<b>7</b>	Week 11-15 Q2	8.ESS1 .2	<ul style="list-style-type: none"> <li>Research and communicate information to describe how data from technologies (telescopes, spectrosopes, satellites, and space probes) provide information about objects in the solar system and universe.</li> <li>Develop a model to generate data for ongoing testing and modification of an electromagnet, a generator, and a motor such that an optimal design can be achieved.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
<b>8</b>	Week 16-18 Q2	8.ESS2 .2 8.ESS2 .5 8.ESS3 .1	<ul style="list-style-type: none"> <li>Evaluate data collected from seismographs to create a model of Earth's structure.</li> <li>Construct a scientific explanation using data that explains the gradual process of plate tectonics accounting for A) the distribution of fossils on different continents, B) the occurrence of earthquakes, and C) continental and ocean floor features (including mountains, volcanoes, faults, and trenches).</li> <li>Interpret data to explain that earth's mineral, fossil fuel, and groundwater resources are unevenly distributed as a result of geologic processes.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%

\*\*Benchmark October 18th-27th

<b>Chapter</b>	<b>Time Frame</b>	<b>Standards</b>	<b>Major Topics/Concepts</b>	<b>% of Blueprint</b>
<b>9</b>	Week 19-20 Q3	8.ESS2 .3	<ul style="list-style-type: none"> <li>Describe the relationship between the processes and forces that create igneous, sedimentary, and metamorphic rocks.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
<b>10</b>	Week 21-23 Q3	8.ESS2 .5	<ul style="list-style-type: none"> <li>Construct a scientific explanation using data that explains the gradual process of plate tectonics accounting for A) the</li> </ul>	8.ESS1/8.ESS2/8.ESS3

			distribution of fossils on different continents, B) the occurrence of earthquakes, and C) continental and ocean floor features (including mountains, volcanoes, faults, and trenches).	41-45%
<b>11</b>	Week 24-25 Q3	8.ESS3 .2	<ul style="list-style-type: none"> <li>Collect data, map, and describe patterns in the locations of volcanoes and earthquakes related to tectonic plate boundaries, interactions, and hotspots.</li> <li>Evaluate data collected from seismographs to create a model of Earth's structure.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
<b>12</b>	Week 26 Q3	8.ESS2 .5	<ul style="list-style-type: none"> <li>Construct a scientific explanation using data that explains the gradual process of plate tectonics accounting for A) the distribution of fossils on different continents, B) the occurrence of earthquakes, and C) continental and ocean floor features (including mountains, volcanoes, faults, and trenches).</li> <li>Collect data, map, and describe patterns in the locations of volcanoes and earthquakes related to tectonic plate boundaries, interactions, and hotspots.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%
<b>13</b>	Week 27 Q3	8.ESS3 .1	<ul style="list-style-type: none"> <li>Interpret data to explain that earth's mineral, fossil fuel, and groundwater resources are unevenly distributed as a result of geologic processes.</li> </ul>	8.ESS1/8.ESS2/8.ESS3 41-45%

\*\*Benchmark: February 28th - March 9th

CHAPTER	Time Frame	Standards	Major Topics/Concepts	% of Blueprint
<b>14</b>	Week 31-32 Q4	8LS4.1	<ul style="list-style-type: none"> <li>Analyze and interpret data for patterns in the fossil record that document the existence, diversity, extinction, and change in life forms throughout Earth's history.</li> </ul>	8.LS4 20-25%
<b>15</b>	Week 33-36 Q4	8LS4.2 8LS4.3 8LS4.5 8LS4.4	<ul style="list-style-type: none"> <li>Construct an explanation addressing similarities and differences of the anatomical structures and genetic information between extinct and extant organisms using evidence of common ancestry and patterns between taxa.</li> </ul> <p>Obtain, evaluate, and communicate information about the technologies that have changed the way humans use artificial selection to influence the inheritance of desired traits in other organisms.</p> <ul style="list-style-type: none"> <li>Analyze evidence from geology, paleontology, and comparative anatomy to support that specific phenotypes within a population can increase the probability of survival of that species and lead to adaptation.</li> </ul>	8.LS4 20-25%

			<ul style="list-style-type: none"><li>• Develop a scientific explanation of how natural selection plays a role in determining the survival of a species in a changing environment.</li></ul>	
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**Student Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Parent/Guardian Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_