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## Middle School Science

a resource for grades 5 - 8



Chemistry | Earth Science | Life Science | Physics  
My Plan Book

Home  
FAQs  
News  
Teacher Sites  
Plan Book  
Notebook  
Odds & Ends  
NJCCCS  
5th Grade HW  
Science Starters  
Blog

Lesson Plans for the 2009-10 school year will be posted here. We have a 6 day cycle with science classes meeting 5 out of 6 days. Each class period is about 45 - 50 minutes. I have 3 sections of Science: 5R, 5G, 5E.

### 2009-2010

- [Interactive Science Notebook](#) - all activities
- Old Lessons Plans 2000-2009
- September: Week 1, 2, 3, 4,
- October: Week 5, 6, 7, 8
- November: Week 9, 10, 11, 12
- December: Week 13, 14, 15,
- January: Week 16, 17, 18, 19
- February: Week 20, 21, 22, 23
- March: Week 24, 25, 26
- April: Week 27, 28, 29, 30
- May: 31, 32, 33, 34
- June: 35, 36

### Week 36

**Big Idea:** Volcanoes are locations where molten rock reaches Earth's surface, and volcanoes can affect landforms and societies

**NJCCC Standards:** 5.1, 5.2, 5.8

**Objectives:** Students will be able to

- learn about the history of Pompeii, its destruction, and its preservation
- explain how Mt. Vesuvius formed using the terms stratovolcano, Eurasian Plate, African Plate, and subduction
- describe the phases of eruption of Mt. Vesuvius
- understand that Romans did not know that Mts. Vesuvius was a volcano and the destruction that it could cause
- view a reenactment of daily life during Roman times and the eruption of Mt. Vesuvius
- understand the importance of Pliny's Letter to Tacitus and its value as a primary source for the events of that day
- understand how historians and scientists have pieced together the story of Pompeii

Date	Day	Science Starters	Classwork Special Schedules This Week	Homework
			All Classes: <u>The Mini Page</u> , begin	

6/7	X	none	"Pompeii. The Last Day"	None
			3:00 Dismissal	
6/8	X	none	All Classes: finish Pompeii Movie	
			3:00 Dismissal	
6/9	X	none	Last Day of Classes	
			All classes	
			MMR - view BBC Gladiator Film	
			12:00 Dismissal	
6/10	X	none	No Classes today!	
6/11	X	None	No Classes	
			Graduation at 3:00pm	

Notebook:

- none

Volcano Links:

- Volcanic Hazards [ppt](#)
- List of [Volcanoes](#) around the world
- [USGS](#), monitors current Volcanic activity - check it out!!
- Volcanoes in the USA - [list](#) - Did you know that we have over [160](#) volcanoes?!
- Volcanic [Glossary](#), not sure what a word means? look it up here! also has color pictures
- Deadliest [Volcanoes](#)
- [Volcanoes for Kids](#)
- NatGeo - Volcano [Quiz](#)
- NatGeo - [Volcanoes](#)
- [Make a Volcano](#)
- Think Quest - [Volcanoes](#)
- Yellowstone: Super Volcano ([Interactive](#))
- BrainPOP: [Volcanoes](#)
- "[How the Earth Was Made: Iceland](#)" - History Channel

### Week 35 [top](#)

<b>Big Idea: Volcanoes are locations where molten rock reaches Earth's surface, and volcanoes can affect landforms and societies</b>				
<b>NJCCC Standards: <a href="#">5.1</a>, <a href="#">5.2</a>, <a href="#">5.8</a></b>				
<b>Objectives: Students will be able to</b> <ul style="list-style-type: none"> <li>• create an animated ppt slide for a volcano of their choice</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
5/31	X	none	No School Memorial Day	none
6/1	D	none	5R - drop day 5G/5E - continue volcano work	Study!
			All classes	

6/2	E	none	Wrap up volcano ppt & review for test	Study!
6/3	F	none	Earthquakes & Volcano Test	ppt done?
6/4	X	None	Special Schedule Work on Black Boxes and End of Year Reflection Picnics 12 - 3pm	none

**Notebook:**

- pg. 188 - BrainPOP Volcano Activity Page
- pg. 189 - BrainPOP FYI Types of Lava
- pg. 190 - Volcano Hazards Graphic (pg. 9)
- pg. 191 - Graphic Organizer: Volcano Hazards Vocab (pg. 8) & ppt
- pg. 192 - Research 5 Volcanoes
- pg. 193 - Volcano ppt criteria

**Volcano Links:**

- Volcanic Hazards ppt
- List of Volcanoes around the world
- USGS, monitors current Volcanic activity - check it out!!
- Volcanoes in the USA - list - Did you know that we have over 160 volcanoes?!
- Volcanic Glossary, not sure what a word means? look it up here! also has color pictures
- Deadliest Volcanoes
- Volcanoes for Kids
- NatGeo - Volcano Quiz
- NatGeo - Volcanoes
- Make a Volcano
- Think Quest - Volcanoes
- Yellowstone: Super Volcano (Interactive)
- BrainPOP: Volcanoes
- "How the Earth Was Made: Iceland" - History Channel

**Week 34 top**

**Big Idea:** Volcanoes are locations where molten rock reaches Earth's surface, and volcanoes can affect landforms and societies

**NJCCC Standards:** 5.1, 5.2, 5.8

**Objectives:** Students will be able to

- identify Iceland as a volcanic island
- know that Iceland is part of the Mid-Atlantic Ridge, and both the N. American & Eurasian tectonic plates
- explain the relationship between volcanoes and plate tectonics
- identify the features of a volcano
- describe different types of lava
- explain how volcanic eruptions can affect climate
- compare three types of volcanoes
- compare craters vs calderas
- describe how magma is formed and moves
- locate & research major volcanoes from around the world
- create an animated ppt slide for a volcano of their choice

Date	Day	Starters	Classwork	Homework
5/24	E	none	All Classes: go over vocab hw finish Iceland Movie Start Volcano Notes & ppt	pg. 185
5/25	F	none	All Classes go over hw Start Volcano Independent Work	pg. 186-187
5/26	A	none	5R - go over hw, continue volcano work  5G - go over hw continue volcano work  5E - drop	none
5/27	B	none	5R - continue volcano work, research  5E - continue volcano work  5G - drop	none
5/28		None	No School today & Monday	Have Fun!

**Notebook:**

- pg. 182 - Earthquake Vocab
- pg. 183 - Earthquake Vocab
- pg. 184 - Earthquake Vocab
- pg. 185 - Volcano notes & ppt
- pg. 186 - Volcano Vocab
- pg. 187 - Volcano Vocab
- pg. 188 - BrainPOP Volcano Activity Page
- pg. 189 - BrainPOP FYI Types of Lava
- pg. 190 - Volcano Hazards Graphic (pg. 9)
- pg. 191 - Graphic Organizer: Volcano Hazards Vocab (pg. 8) & ppt
- pg. 192 - Research 5 Volcanoes
- pg. 193 - Volcano ppt criteria

**Volcano Links:**

- Volcanic Hazards ppt
- List of Volcanoes around the world
- USGS, monitors current Volcanic activity - check it out!!
- Volcanoes in the USA - list - Did you know that we have over 160 volcanoes?!
- Volcanic Glossary, not sure what a word means? look it up here! also has color pictures
- Deadliest Volcanoes
- Volcanoes for Kids
- NatGeo - Volcano Quiz
- NatGeo - Volcanoes
- Make a Volcano
- Think Quest - Volcanoes
- Yellowstone: Super Volcano (Interactive)
- BrainPOP: Volcanoes
- "How the Earth Was Made: Iceland" - History Channel

**Week 33 top**

**Big Idea: Earthquakes result from sudden motions along breaks in the Earth's crust and can affect landforms and societies.**

**NJCCC Standards: 5.1, 5.2, 5.8**

**Objectives: Students will be able to**

- explain where earthquakes take place
- explain what causes earthquakes
- describe how energy from earthquakes travels through the Earth
- differentiate between P,S, and surface waves
- explain how earthquakes are detected
- know how to read the Richter scale
- how to read the Mercalli Scale
- compare the Mercalli and Richter Scales
- simulate an earthquake drill
- know what to do in case of an earthquake
- explain what a tsunami is and what causes one to form
- identify the warning signs of an approaching tsunami
- identify Iceland as a volcanic island
- know that Iceland is part of the Mid-Atlantic Ridge, and both the N. American & Eurasian tectonic plates

Date	Day	Science Starters	Classwork	Homework
5/17	F	Plate Tectonics <u>3/4</u>	All - go over hw 5R- Finish earthquake notes 5G/5E - Start Earthquake notes	All - pg. 175
5/18	A	Plate Tectonics <u>4/5</u>	5E - drop 5R - Earthquakes, Tilly Smith, Tsunami Video Clips and discussion 5G - Finish up earthquake notes Earthquake Drill	5R - 176-178
5/19	B	Plate Tectonics <u>5/</u> Earthquake <u>1</u>	5G - drop 5E - Finish up earthquake notes Earthquake Drill 5R - go over hw, video clips & discussion, start hw	5R - 179-181 5E - 176-177
5/20	C	none	All - Plate Tectonics Quiz (15min) 5R - go over hw Start "Iceland" by History Channel 5G- go over hw video clips & discussion, start hw 5E- go over hw video clips & discussion, start hw	5R- pgs. 182-184 5G - 178-181 5E - 178-181
5/21	D	Earthquake <u>1</u>	5R - drop 5E - go over hw "Iceland" by History Channel 5G - go over hw "Iceland" by History Channel	5E/5G - pgs. 182-184

**Notebook:**

- pg. 170 - Plate Tectonics - Key Terms (pg 22)
- pg. 171 - Pangea - color, cut, and paste in order
- pg. 172 - BrainPOP - Earthquakes
- pg. 173 - Puzzle, Types of Waves
- pg. 174 - Earthquake Notes & ppt
- pg. 175 - Types of Faults
- pg. 176 - Drop, Cover, and Hold On
- pg. 177 - Living on a Fault
- pg. 178 - Mercalli Intensity Scale
- pg. 179 - People & Earthquakes (pg. 31)
- pg. 180 - P & S Waves Graph
- pg. 181 - Calculating Time of an Earthquake (pg. 33)
- pg. 182 - Earthquake Vocab
- pg. 183 - Earthquake Vocab
- pg. 184 - Earthquake Vocab

**Related Links:**

- California Shake Out Drill
- Tilly Smith -Tsunami
- NatGeo - Tsunami
- NatGeo - Earthquakes
- "How the Earth Was Made: Iceland" - History Channel

**Week 32** [top](#)

**Big Idea:** Plate tectonics accounts for important features of Earth's surface and major geologic events.

**Big Idea:** Earthquakes result from sudden motions along breaks in the Earth's crust and can affect landforms and societies.

**NJCCC Standards:** [5.1](#), [5.2](#), [5.8](#)

**Objectives:** Students will be able to

- record real time earthquake data using USGS
- describe how earthquakes are measured using the Richter Scale
- plot earthquake data on a map using latitude and longitude coordinates
- see the correlation between earthquakes and tectonic plates
- explain where earthquakes take place
- explain what causes earthquakes
- describe how energy from earthquakes travels through the Earth
- differentiate between P,S, and surface waves
- explain how earthquakes are detected
- know how to read the Richter scale

Date	Day	Science Starters	Classwork	Homework
5/10	A	Plate Tectonics 1	5R/5G - go over hw Plot Earthquake Data 5E - drop	5R/5G - pgs. 166-167
5/11	B	Plate Tectonics 1/2	5E - go over hw Plot earthquake Data 5R - BrainPOP: <u>Earthquakes</u> Notes	5E - pgs. 166-167 5R - 172-173
		Plate	All - go over hw	

5/12	C	Tectonics 2/3	5E/5G: BrainPOP: <u>Earthquakes</u> Notes 5R: Start Earthquake Notes & ppt	5E/5G - 170-173
5/13	D	none	Greek Plays Today - special schedule	none
5/14	E	none	Great Adventure - Chorus Trip	none
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 166 - <u>Plotting Earthquakes data</u></li> <li>pg. 167 - Plotting Earthquakes- map</li> <li>pg. 168 - Tectonic Plates - Review Sheet (pg 29)</li> <li>pg. 169 - Iceland - Enrichment (pg 30)</li> <li>pg. 170 - Plate Tectonics - Key Terms (pg 22)</li> <li>pg. 171 - <u>Pangea</u> - color, cut, and paste in order</li> <li>pg. 172 - BrainPOP - Earthquakes</li> <li>pg. 173 - <u>Puzzle, Types of Waves</u></li> <li>pg. 174 - Earthquake Notes &amp; ppt</li> </ul>				
<b>Related Links:</b>  <b>USGS Earthquake Links:</b> <ul style="list-style-type: none"> <li><u>Past 7 days</u></li> <li><u>Last 7 days</u>- USA Animation</li> <li><u>Last 8-30 days</u></li> </ul>				

**Week 31 top**

<b>Big Idea: Plate tectonics accounts for important features of Earth's surface and major geologic events.</b>				
<b>Big Idea: Earthquakes result from sudden motions along breaks in the Earth's crust and can affect landforms and societies.</b>				
<b>NJCCC Standards: <u>5.1</u>, <u>5.2</u>, <u>5.8</u></b>				
<b>Objectives: Students will be able to</b> <ul style="list-style-type: none"> <li>record real time earthquake data using USGS</li> <li>describe how earthquakes are measured using the Richter Scale</li> <li>plot earthquake data on a map using latitude and longitude coordinates</li> <li>see the correlation between earthquakes and tectonic plates</li> </ul>				
Date	Day	Science Starters	Classwork <b>Special Schedules this week for Spring Sing Rehearsals, shortened classes</b>	Homework
5/3	C	none	Rocks Test Today	pgs. 163-165
5/4	D	<u>Earth Science Trivia</u>	5E - go over hw Wrap up Plate Tectonic Notes 5G - go over hw Wrap up Plate Tectonic Notes	5E/5G - none
5/5	E	<u>Earth Science</u>	5R - go over hw Wrap up Plate Tectonics Notes	All- sign & correct test

		<u>Trivia</u>	5G - start collecting Earthquake data 5E - start collecting earthquake data	5E/5G - pgs. 168, 169
5/6	F	<u>Earth Science Trivia</u>	5R - Collect Earthquake Data 5G/5E - go over hw (5G, go over hw on Monday, class time was too short) Finish collecting earthquake data	5R - pgs. 168, 169 5E/5G - finish collecting earthquake data only
5/7	X	none	Grandfriend's Day, Spring Sing, & Field Day	none
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 160 - Plate Tectonics <u>Notes</u> &amp; <u>Plate Tectonics</u> ppt</li> <li>pg. 161 - Earth's Layers - <u>Color</u></li> <li>pg. 162 - Tectonic Plates - <u>Color</u></li> <li>pg. 163 - Plate Tectonics <u>Vocab</u></li> <li>pg. 164 - Plate Tectonics <u>Vocab</u></li> <li>pg. 165 - Plate Tectonics <u>Vocab</u></li> <li>pg. 166 - <u>Plotting Earthquakes data</u></li> <li>pg. 167 - Plotting Earthquakes- map</li> <li>pg. 168 - Tectonic Plates - Review Sheet (<u>pg 29</u>)</li> <li>pg. 169 - Iceland - Enrichment (<u>pg 30</u>)</li> <li>pg. 170 - Earthquake Notes &amp; ppt</li> </ul>				
<b>Related Links:</b>  <b>USGS Earthquake Links:</b> <ul style="list-style-type: none"> <li><u>Past 7 days</u></li> <li><u>Last 7 days- USA Animation</u></li> <li><u>Last 8-30 days</u></li> </ul>				

### Week 30 top

**Big Idea:** Studying the rock and fossil record help us understand Earth's history and the history of life on Earth.

**Big Idea:** Plate tectonics accounts for important features of Earth's surface and major geologic events.

**NJCCC Standards:** 5.1, 5.2, 5.8

**Objectives:** Students will be able to

- use a model to demonstrate core sampling
- understand that geologists use core samples to diagram underground rock layers
- explain that a topographic map represents a 3-D surface on a flat piece of paper
- create and read simple topographic maps
- make a 3-D model using data from a topographic map
- identify the layers of the Earth and their chemical composition
- identify the layers of the Earth and their physical properties
- describe a tectonic plate
- describe Wegener's hypothesis of continental drift
- explain how sea-floor spreading provides a way for continents to move
- describe how oceanic lithosphere forms at mid-ocean ridges
- describe 3 types of tectonic plate boundaries



Date	Day	Science Starters	Classwork	Homework
4/26	X	none	Ancient Greece - Special Schedule	None
4/27	E	<u>Earth Science Trivia</u>	5R - Core Sampling 5E- Playdoh Topo Maps 5G- Playdoh Topo Maps	Kairos Night, no HW
4/28	F	<u>Earth Science Trivia</u>	5R - Playdoh Topo Maps  5E - BrainPOP - <u>Earth's Structure, Plate Tectonics</u> Intro to Plate Tectonics  5G- BrainPOP - <u>Earth's Structure, Plate Tectonics</u> Intro to Plate Tectonics	5R - pg. 157, 159  5E/5G - pg. 159, pg. 161
4/29	A	<u>Earth Science Trivia</u>	5E - Drop  5R - Go over HW BrainPOP - <u>Earth's Structure, Plate Tectonics</u> Intro to Plate Tectonics  5G - Go over HW Plate Tectonics continued	5R - pg. 161, 162  5G - pg. 162  Study for Rocks Quest
4/30	B	<u>Earth Science Trivia</u>	5R - Go over HW Plate tectonics continued  5E - Go over HW Plate tectonics continued	5E - pg. 162  Study for Rocks Quest

**Notebook:**

- pg. 156 - Core Samples- Candy Bar Activity
- pg. 157 - Practice: Core Samples
- pg. 158 - Playdoh Mountains/Topo Maps
- pg. 159 - Practice: Topo Maps
- pg. 160 - Plate Tectonics Notes & Plate Tectonics ppt
- pg. 161 - Earth's Layers - Color
- pg. 162 - Tectonic Plates - Color
- pg. 163 - Iceland - Enrichment (pg 30)
- pg. 164 - Tectonic Plates - Review Sheet
- pg. 165 - Plate Tectonics Vocab
- pg. 166 - Plate Tectonics Vocab
- pg. 167 - Plate Tectonics Vocab
- pg. 168 -

**Related Links:**

- <http://geology.com/nsta/earth-internal-structure.shtml>
- <http://pubs.usgs.gov/gip/dynamic/understanding.html>
- <http://www.enchantedlearning.com/subjects/astronomy/planets/earth/Continents.shtml>

**Big Idea: Studying the rock and fossil record help us understand Earth's history and the history of life on Earth.**

**NJCCC Standards: [5.1](#), [5.2](#), [5.8](#)**

**Objectives: Students will be able to**

- explain how relative dating is used in geology
- explain the law of superposition
- explain how physical features are used to determine relative ages
- explain why fossils are usually found in sedimentary rock
- explain how fossils can be used to date rock layers
- explain how fossils can be used to determine the history of changes in environments and organisms
- name an index fossil
- use a model to demonstrate core sampling
- understand that geologists use core samples to diagram underground rock layers

Date	Day	Science Starters	Classwork	Homework
4/19	A	<a href="#">Earth Science Trivia</a>	5E - Drop 5G - go over hw pg. 151-52 Law of Superposition 5R - Go over Rock Lab, <a href="#">ppt</a> BrainPOP: <a href="#">weathering &amp; erosion</a>	5R - pgs. 151-52  5G - pg. 153, 155
4/20	B	<a href="#">Earth Science Trivia</a>	5G - drop 5E - go over hw pg. 151-52 Law of Superposition 5R - go over hw pg. 151-52 Law of Superposition	5R/5E - pg. 153, 155
4/21	C	none	<a href="#">Sterling Mine Trip</a>	none
4/22	D	<a href="#">Earth Science Trivia</a>	5R - Drop 5G - Core Sampling 5E - Core Sampling	5E/5G - pg. 157
4/23	X	none	Earth Day Festivities!	none

**Notebook:**

- pg. 151 - Rocks terms ([pg. 21](#))
- pg. 152 - Rocks and Minerals Crossword Puzzle ([pg. 22](#))
- pg. 153 - BrainPOP FYI: [Grand Canyon](#)
- pg. 154 - Law of Superposition [Notes](#), [ppt](#)
- pg. 155 - Practice - [Law of Superposition](#)
- pg. 156 - [Core Samples- Candy Bar Activity](#)
- pg. 157 - Practice: [Core Samples](#)

**Related Links:**

**Big Idea: Rock changes through the rock cycle and is classified by how it formed, by its composition, and by its texture.**

**NJCCC Standards: 5.1, 5.2, 5.8**

**Objectives: Students will be able to**

- describe the way igneous rocks form
- explain how cooling rates affect crystal size in igneous rock
- distinguish between extrusive and intrusive igneous rocks
- describe how sedimentary rocks form
- understand what strata and stratification means
- describe how rocks undergo metamorphism
- know the difference between foliated and non-foliated
- identify 10-12 different rock samples

Date	Day	Science Starters	Classwork	Homework
4/12	B	<u>Rocks Bell</u>	5G - Drop 5E/5R - collect rock cycle comics Review for Minerals/Mining Test	Study
4/13	C	none	Minerals and Mining Test	None
4/14	D	<u>Rocks Bell</u>	5G/5E - Start Rock Identification Lab	none
4/15	E	<u>Rocks Bell</u>	5R - Start Rock Identification Lab 5E/5G - continue Rock Lab	sign test & permission slip
4/16	F	<u>Rocks Bell</u>	5R - Finish Rock Lab 5E/5G - Go over Rock Lab, ppt BrainPOP: <u>weathering</u> & <u>erosion</u>	5G/5E - pg. 151-52  sign permission slip by Monday

**Notebook:**

- pg. 146 - Color the Rock Cycle Notes & ppt
- pg. 147 - Ride the Rock Cycle Activity, Comic to hand in
- pg. 148 - Igneous Rocks
- pg. 149 - Metamorphic Rocks
- pg. 150 - Sedimentary Rocks
- pg. 151 - Rocks terms (pg. 21)
- pg. 152 - Rocks and Minerals Crossword Puzzle (pg. 22)

**Related Links:**

Smart Board Activity- <http://www.learner.org/interactives/rockcycle/index.html>

**Week 27 top**

**Big Idea: Rock changes through the rock cycle and is classified by how it formed, by its composition, and by its texture.**

**NJCCC Standards: 5.1, 5.2, 5.8**

**Objectives: Students will be able to**

- define the term rock
- list three different types of rocks: igneous, sedimentary, and metamorphic
- identify characteristics for each type of rock
- describe how each type changes into another type of rock as it moves through the rock cycle
- identify processes such as weathering, erosion, deposition, heat, pressure, cementation
- create an original comic showing the journey of one rock through the rocky cycle

Date	Day	Science Starters	Classwork	Homework
4/5	C	"I" words	All Classes - New Seats Set up new notebooks pg. Start notes for Types of Rocks	none
4/6	D	"J/K" words	5R - drop 5E - finish notes for types of rocks 5G - finish notes for types of rocks	5E/5G- pg. 144
4/7	E	"L" words	5R - finish notes for types of rocs 5E - go over pg. 144 BrainPOP: <u>Rock Cycle</u> Color the rock cycle, notes, website 5G - go over pg. 144 BrainPOP: <u>Rock Cycle</u> Color the Rock Cycle, notes, website	5R- pg. 144 5E/5G - pg. 145
4/8	F	"M" words	5R - go over pg. 144 BrainPOP: <u>Rock Cycle</u> Color the rock cycle, notes, website 5E - go over pg. 145 Ride the Rock Cycle 5G - go over pg. 145 Ride the Rock Cycle	5R - pg. 145, 5E/5G - complete comic
4/9	A	"N" words	5E - Drop 5R - go over pg 145 BrainPOP: <u>Rock Cycle</u> Ride the Rock Cycle 5G - Collect Comics, Review for Minerals & Mining Test	5G - study 5R - complete comic

**Notebook:**

- pg. 140 - BrainPOP Rocks - Fill in the blank notes
- pg. 141 - Types of Rocks Power Point and notes
- pg. 142 - Types of Rocks Power Point and notes
- pg. 143 - Types of Rocks Power Point and notes
- pg. 144 - BrainPOP Rocks - Graphic Organizer
- pg. 145 - Rocks Vocabulary Cut 'n Paste
- pg. 146 - Color the Rock Cycle Notes & ppt
- pg. 147 - Ride the Rock Cycle Activity, Comic to hand in

**Related Links:**

**Smart Board Activity-** <http://www.learner.org/interactives/rockcycle/index.html>

Week 26 [top](#)

**Big Idea: Minerals have characteristic physical and chemical properties that determine how each mineral is used by humans.**

**Big Idea: Rock changes through the rock cycle and is classified by how it formed, by its composition, and by its texture.**

**NJCCC Standards: [5.1](#), [5.2](#), [5.8](#)**

**Objectives: Students will be able to**

- understand how mining impacts the environment
- list and compare different types of mining
- know what reclamation is
- understand why we have mines
- realize the relationship between mining and their everyday life
- participate in a simulated "mining" of chocolate chips from cookies, using money to purchase the necessary property, tools, and labor
- understand the various costs associated with mining coal, including environmental remediation, as demonstrated in the simulation
- calculate costs and profits from cookie mining and relate them to the mining industry.
- define the term rock
- list three different types of rocks: igneous, sedimentary, and metamorphic

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Date	Day	Science Starters	Classwork	Homework
3/29	E	Minerals <u>6</u>	5E/5G - go over pg. 137 5R - What is mining? Notes pg. 136 5E - Cookie Mining Activity 5G - Cookie Mining Activity	5R - pg. 137  All - current event due 3/30
3/30	F	Minerals <u>7</u>	5R - go over hw pg. 137 Cookie Mining Activity 5E - Go over Cookie Mining - Notes, Talk about Little Miners, video clip 5G - Go over Cookie Mining - Notes, Talk about Little Miners, video clip	5G/5E - pg. 138-39
3/31	A	"G" words	5E - drop 5 R - Go over Cookie Mining - Notes & Talk about Little Miners, video clip 5 G - Go over Little Miners BrainPOP: <u>Rocks</u> Intro to Rocks	5R - pg. 138-39
4/1	B	"H" words	5G - Drop 5R - Intro to Rocks, go over Little Miners HW BrainPOP: <u>Rocks</u> 5E - Go over Little Miners HW BrainPOP: <u>Rocks</u>	none

			<b>Intro to Rocks</b>	
<b>4/2</b>	<b>X</b>	<b>none</b>	<b>No School - Good Friday</b>	<b>none</b>
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 136 - What is mining? <u>PPT</u>, <u>Notes</u></li> <li>pg. 137 - <u>Mining in NJ</u> - color code map (pg 2)</li> <li>folder - <u>Cookie Mining Lab</u></li> <li>pg. 138 - Little Miners <u>ppt</u> &amp; <u>questions</u>, <u>video</u></li> <li>pg. 139 - Little Miners <u>ppt</u> &amp; <u>questions</u>, <u>video</u></li> <li>pg. 140 - BrainPOP Rocks- Fill in the blank notes</li> <li>pg. 141 - BrainPOP Rocks - <u>Graphic Organizer</u></li> <li>pg. 142 - Rocks - notes &amp; pp</li> </ul>				
<b>Related Links:</b>				

**Week 25 top**

<b>Big Idea: Minerals have characteristic physical and chemical properties that determine how each mineral is used by humans.</b>				
<b>NJCCC Standards: <u>5.1</u>, <u>5.2</u>, <u>5.8</u></b>				
<b>Objectives: Students will be able to</b> <ul style="list-style-type: none"> <li>identify the properties of minerals</li> <li>recognize that minerals are grouped based on their chemical properties</li> <li>research a mineral and create an advertisement for it</li> <li>list characteristics of a mineral</li> <li>perform a variety of mineral identification tests</li> <li>identify common minerals based on physical characteristics and collected data</li> <li>understand how mining impacts the environment</li> <li>list and compare different types of mining</li> <li>know what reclamation is</li> <li>understand why we have mines</li> <li>realize the relationship between mining and their everyday life</li> </ul>				
<b>Date</b>	<b>Day</b>	<b>Science Starters</b>	<b>Classwork</b>	<b>Homework</b>
3/22	F	Minerals <u>1</u>	5R - Continue mineral research 5G - Mineral Identification Lab 5E - Mineral Identification Lab	Poster due 3/25  All - pg. 133
3/23	A	Minerals <u>2</u>	5E - Drop 5R/G -Go over pg. 133 5R - Mineral Identification Lab 5G - Finish Mineral Lab	work on poster  5G-pg. 135
3/24	B	Minerals <u>3</u>	5G - Drop 5R - Finish Mineral Lab 5E - Finish Mineral Lab, go over pg. 133 Mineral Poster Due Today	work on poster  5R/5E - pg. 135

3/25	C	Minerals <u>4</u> ,	All classes: go over hw pg. 135 Discuss Mineral Lab Play mineral identification game	All - current event due 3/30
3/26	D	Minerals <u>5</u>	5R - drop 5E - What is Mining? Notes pg. 136 5G - What is Mining? Notes pg. 136	5E/5G - pg. 137
<p><b>Notebook:</b></p> <ul style="list-style-type: none"> <li>pg. 124 - What is a mineral? <a href="#">Notes &amp; PPT</a></li> <li>pg. 125 - Practice: <a href="#">Minerals in your home</a>, <a href="#">Link</a></li> <li>pg. 126 - <a href="#">Crystal Shapes</a> Handout</li> <li>pg. 127 - Graphic Organizer: <a href="#">Crystal Forms</a></li> <li>pg. 128 - Graphic Organizer: <a href="#">Silicate Minerals</a>, <a href="#">ppt</a></li> <li>pg. 129 - Graphic Organizer: <a href="#">Nonsilicate Minerals</a></li> <li>pg. 130 - <a href="#">Minerals Vocab pg. 1</a></li> <li>pg. 131 - <a href="#">Minerals Vocab pg. 2</a></li> <li>pg. 132 - <a href="#">Mineral Identification Outline</a></li> <li>pg. 133 - Practice: <a href="#">Mineral Groups</a></li> <li>pg. 134 - <a href="#">Mineral Identification Lab</a></li> <li>pg. 135 - Practice: <a href="#">Mohs Scale of Hardness</a> (pg. 17)</li> <li>pg. 136 - What is mining? <a href="#">PPT</a>, <a href="#">Notes</a></li> <li>pg. 137 - <a href="#">Mining in NJ</a> - color code map (pg 2)</li> <li>pg. 138 - Cookie Mining Lab</li> </ul>				
<p><b>Related Links:</b></p> <p><u><a href="#">Mineral Poster</a></u> Research Links: Poster is due on 3/25</p> <ol style="list-style-type: none"> <li>1. Geology.com: <a href="#">Minerals</a></li> <li>2. <a href="#">Minerals</a>: listed by name</li> <li>3. Minerals: <a href="#">A to Z</a></li> <li>4. Commons Minerals and their <a href="#">uses</a></li> <li>5. Minerals: <a href="#">Photos</a></li> <li>6. Minerals: <a href="#">Image Gallery</a></li> <li>7. Mineral <a href="#">Groups</a></li> <li>8. USGS: type in the <a href="#">name</a> of your mineral</li> </ol>				

#### Week 24 [top](#)

<b>Big Idea:</b> Minerals have characteristic physical and chemical properties that determine how each mineral is used by humans.				
<b>NJCCC Standards:</b> <a href="#">5.1</a> , <a href="#">5.2</a> , <a href="#">5.8</a>				
<b>Objectives:</b> Students will be able to <ul style="list-style-type: none"> <li>identify the properties of minerals</li> <li>describe the structure and composition of minerals</li> <li>differentiate between minerals and non-minerals</li> <li>identify common uses of minerals</li> <li>recognize that minerals are grouped based on their chemical properties</li> <li>research a mineral and create an advertisement for it</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
			5R - go over hw pg. 125 using	

3/1	A	"D" Words	<p>SmartBoard, introduce <u>mineral guide</u> and how to use it, look up minerals from HW to see what they look like, chem formula, and where it is found</p> <p>BrainPOP: <u>Crystals Movie</u></p> <p>6 Crystal Shapes pg. 126 pg. 127 Graphic Organizer using mineral guide book</p> <p>5G: BrainPOP Movie: <u>Mineral Ident.</u> Vocab pg. 130-31 Start Mineral Research, <u>Mineral guide</u> &amp; Links</p> <p>5E: Drop</p>	5R/5G - pg. 128-129
3/2	B	none	<p><u>Met Trip</u> -- NYC Greek &amp; Roman <u>Galleries</u> <u>Ancient Egypt</u></p>	none
3/3	C	"E" Words	<p>5R/5E - BrainPOP Movie: <u>Mineral Ident.</u> Vocab pg. 130-31 Start Mineral Research <u>Mineral guide</u> &amp; Links</p> <p>5G-go over hw Continue Research</p>	<p>5E - pg. 128-129</p> <p>5R - Review</p>
3/4	D	"E" Words	<p>Academic Support - Study Groups</p> <p>5R - Drop (continue research when we get back on 3/22)</p> <p>5G -Quiz Ball</p> <p>5E - go over hw Continue Mineral Research</p>	All - Review
3/5	E	none	<p><b>Special Schedules</b></p> <p>Chemistry Test</p>	Spring Break!

**Notebook:**

- pg. 124 - What is a mineral? Notes & PPT
- pg. 125 - Practice: Minerals in your home, Link
- pg. 126 - Crystal Shapes Handout
- pg. 127 - Graphic Organizer: Crystal Forms
- pg. 128 - Graphic Organizer: Silicate Minerals, ppt
- pg. 129 - Graphic Organizer: Nonsilicate Minerals
- pg. 130 - Minerals Vocab pg. 1
- pg. 131 - Minerals Vocab pg. 2

**Related Links:**

Mineral Poster Research Links: Poster is due on 3/25

1. Geology.com: Minerals
2. Minerals: listed by name
3. Minerals: A to Z
4. Commons Minerals and their uses
5. Minerals: Photos



6. Minerals: Image Gallery
7. Mineral Groups
8. USGS: type in the name of your mineral

Week 23 top

**Big Idea: Chemical Compounds are classified into groups based on their bonds and on their properties.**

**Big Idea: Minerals have characteristic physical and chemical properties that determine how each mineral is used by humans.**

**NJCCC Standards: 5.1, 5.2, 5.6, 5.8**

**Objectives: Students will be able to**

- collect data from 6 different white powders based upon physical and chemical properties
- follow correct lab safety procedures
- analyze data and use a flow chart
- identify unknown substances
- explain what acid rain is and what causes it
- identify the effects of acid rain on the environment
- identify the properties of minerals
- describe the structure and composition of minerals
- differentiate between minerals and non-minerals
- identify common uses of minerals
- ? categorize the minerals into groups

Date	Day	Science Starters	Classwork	Homework
2/22	B	Litmus <u>2</u>	5G - Drop  5R - Alien Juice Bar - <u>Laptop</u> go over hw 119, 122-23  5E - Finish Mystery Powder Lab go over hw pg. 120-21	5R - none  5E - pg. 119, 122-23
2/23	C	Acids/ Bases 4	5E- What is a mineral? pg. 124 go over hw 119, 122-23  5G - go over hw pg. 122-23 What is a mineral? pg. 124  5R - What is a mineral? pg. 124	5E - <u>Alien Juice Bar</u>  All pg. 125
2/24	D	Litmus <u>3</u>	5E/5G - go over hw pg. 125 using SmartBoard, introduce <u>mineral guide</u> and how to use it, look up minerals from HW to see what they look like, chem formula, and where it is found  BrainPOP: <u>Crystals Movie</u>  6 Crystal Shapes pg. 126 pg. 127 Graphic Organizer using mineral guide  Start cutting out <u>crystal shapes</u> , one per student	Study

			5R - Drop Day	
2/25	E	None	Snow Day!	None
2/26	F	none	Snow Day! Chem Test Moved to Next Week TBA	none
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 118 - <u>Mystery Powder Lab</u></li> <li>pg. 119 - <u>Flow Chart &amp; Answers</u></li> <li>pg. 120 - <u>Acids/Bases Vocab pg. 1</u></li> <li>pg. 121 - <u>Acids/Bases Vocab pg. 2</u></li> <li>pg. 122 - <u>Acid Rain Reading</u></li> <li>pg. 123 - <u>Acid Rain questions</u></li> <li>pg. 124 - What is a mineral? <u>Notes &amp; PPT</u></li> <li>pg. 125 - Practice: <u>Minerals in your home, Link</u></li> <li>pg. 126 - <u>Crystal Shapes Handout</u></li> <li>pg. 127 - Graphic Organizer: <u>Crystal Forms</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u></li> <li><u>Alien Juice Bar Handout</u></li> <li><u>Crystal Models</u> - cut outs</li> </ul>				

**Week 22 top**

**Big Idea:** Chemical Compounds are classified into groups based on their bonds and on their properties.

**NJCCC Standards:** 5.1, 5.2, 5.6

**Objectives:** Students will be able to

- describe properties and uses of acids
- describe properties and uses of bases
- explain the difference between strong acids and bases and weak acids and bases
- read and interpret information from a pH scale
- identify acids and bases using pH
- use indicators to identify acids and bases
- collect data from 6 different white powders based upon physical and chemical properties
- follow correct lab safety procedures
- analyze data and use a flow chart
- identify unknown substances
- explain what acid rain is and what causes it
- identify the effects of acid rain on the environment

Date	Day	Science Starters	Classwork	Homework
2/15	X	none	No School Today - Presidents' Day	none
2/16	D	Acids, Bases 1	5E- pH Sort Activity pg. 114 BrainPOP Movie: <u>pH Scale</u> 5G- Go over pg. 115 Cabbage Juice Lab pg. 116 5R- Drop	5E - pg. 115 5G - pg. 117
			5R- Go over pg. 115	

2/17	E	Acids, Bases 2	Cabbage Juice Lab pg. 116 5E - Go over pg. 115 Cabbage Juice Lab pg. 116 5G - Start Mystery Powder Lab pg. 118	Current Event Due 2/18  5R/5E - pg. 117
2/18	F	Acids Bases 3	New Seats Current Event Due 5R- Start Mystery Powder Lab 5G- Finish Mystery Powder Lab 5E- Start Mystery Powder Lab	All - Vocab pg. 120-21  5G - pg. 119
2/19	A	Litmus 1	5R/5G - go over vocab hw 5R- Finish Mystery Powder Lab 5G- Alien Juice Bar - <u>Laptop</u> 5E - Drop	5R - pgs. 119 & 122-23  5G - pgs. 122- 23
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 114 - <u>pH Scale Activity Sort</u></li> <li>pg. 115 - <u>BrainPOP pH scale activity</u></li> <li>pg. 116 - <u>Cabbage Juice Lab</u></li> <li>pg. 117 - <u>Cabbage Juice Analysis</u></li> <li>pg. 118 - <u>Mystery Powder Lab</u></li> <li>pg. 119 - <u>Flow Chart &amp; Answers</u></li> <li>pg. 120 - <u>Acids/Bases Vocab pg. 1</u></li> <li>pg. 121 - <u>Acids/Bases Vocab pg. 2</u></li> <li>pg. 122 - <u>Acid Rain Reading</u></li> <li>pg. 123 - <u>Acid Rain questions</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog due 2/18</u></li> <li><u>Alien Juice Bar Handout</u></li> </ul>				

**Week 21 top**

<b>Big Idea:</b> Chemical Compounds are classified into groups based on their bonds and on their properties.				
<b>NJCCC Standards:</b> <u>5.1</u> , <u>5.2</u> , <u>5.6</u>				
<b>Objectives:</b> Students will be able to <ul style="list-style-type: none"> <li>describe properties and uses of acids</li> <li>describe properties and uses of bases</li> <li>explain the difference between strong acids and bases and weak acids and bases</li> <li>read and interpret information from a pH scale</li> <li>identify acids and bases using pH</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
2/7	F	Puns 3	All - go over hw 109, 111 BrainPOP Movie - <u>Acids and Bases</u> Smart Board Activity - <u>Acids Bases</u>	pg. 113

			Notes/Venn Diagram pg. 112	
2/8	A	Puns 4	5E - Drop  5R - pH Sort Activity pg. 114 BrainPOP Movie: <u>pH Scale</u>  5G - pH Sort Activity pg. 114 BrainPOP Movie: <u>pH Scale</u>	5R/5G - pg. 115
2/10	B	none	Snow Day! Enjoy!	none
2/11	C	none	Snow Day! Enjoy!	none
2/12	X	none	No School - 4 day weekend!	relax!
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 109 - Practice- <u>Balancing Equations pg 1</u></li> <li>pg. 110 - <u>Law of Conservation of Mass</u></li> <li>pg. 111 - Conservation of Mass Analysis</li> <li>pg. 112 - <u>Acids/Bases Venn Diagram</u></li> <li>pg. 113 - BrainPOP - FYI - <u>Gastric Acid</u></li> <li>pg. 114 - <u>pH Scale Activity Sort</u></li> <li>pg. 115 - BrainPOP <u>pH scale activity</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u>- due 2/18</li> </ul>				

**Week 20 top**

**Big Idea:** Substances undergo chemical reactions which form new substances whose properties differ from the properties of the original substance.

**Big Idea:** Chemical Compounds are classified into groups based on their bonds and on their properties.

**NJCCC Standards:** 5.1, 5.2, 5.6

**Objectives:** Students will be able to

- interpret and write simple chemical formulas
- recognize the individual elements in a formula
- recognize the subscript as the number of atoms
- explain what an oxidation number is
- differentiate between positive and negative ions
- define cation and anion
- create and name binary compounds
- use the 'criss-cross' method for oxidation numbers/subscripts in a chemical formula
- describe how chemical reactions produce new substances that have different chemical and physical properties.
- identify indicators that a chemical reaction is taking place
- write and balance simple chemical equations
- explain how a balanced equation shows the law of conservation of mass

Date	Day	Science Starters	Classwork	Homework
			5E - Drop	

2/1	A	Compound Challenge <u>3</u>	5R- Go over vocab HW Bond with a Classmate  5G - Wrap up Bond with a classmate, Intro/explain Balancing Equations BrainPOP Movie: <u>Chemical Equations</u>	5R/5G pg. 105  Review for Quest
2/2	B	Compound Challenge <u>4</u>	5G - Drop  5E - Go over vocab HW Bond with a Classmate  5R - Balancing Equations BrainPOP Movie: <u>Chemical Equations</u>	5E pg. 105  Review for Quest
2/3	C	none	<b>SNOW! Delayed Opening 10:00 am</b>  All - <b>Quest</b> Today 25 min  5E/5G Quest  5R- End Balancing Equations (10 minutes)	All pg. 105-p
2/4	D	Puns <u>1</u>	5R - Drop  5E- go over pg. 105 Balancing Equations BrainPOP Movie: <u>Chemical Equations</u>  5G - go over pg. 105 Balancing Equations	All Sign/Correct Quest
2/5	E	Puns <u>2</u>	5R - go over pg. 105  All - Law of Conservation of Mass BrainPOP Movie: <u>Law of Conservation of Mass</u>	All pg. 109, 111

**Notebook:**

- pg. 104 - Bond with a Classmate, Tags
- pg. 105 - Analysis - Bond with a classmate
- pg. 105 p - Naming Binary Compounds Practice
- pg. 106 - Ions Vocab pg. 1
- pg. 107 - Ions Vocab pg. 2
- pg. 108 - Balancing Equations Activity
- pg. 109 - Practice- Balancing Equations pg 1
- pg. 110 - Law of Conservation of Mass
- pg. 111 - Conservation of Mass Analysis
- pg. 112 - Acids/Bases Venn Diagram
- pg. 113 - BrainPOP - FYI - Gastric Acid
- pg. 114 - pH Scale Activity Sort
- pg. 115 - BrainPOP pH scale activity

**Related Links:**

- Current Events Blog

Week 19 [top](#)**Big Idea: Atoms combine to form ionic and covalent bonds.**

**Big Idea: Substances undergo chemical reactions which form new substances whose properties differ from the properties of the original substance.**

**NJCCC Standards: [5.1](#), [5.2](#), [5.6](#)**

**Objectives: Students will be able to**

- correctly read a chemical formula
- recognize the individual elements in a formula
- recognize the subscript as the number of atoms
- construct 3-D models of molecules
- visualize how atoms combine to form molecules
- practice ionic and covalent bonding
- explain what an isomer is
- describe how chemical reactions produce new substances with different chemical and physical properties
- interpret and write simple chemical formulas
- explain what an oxidation number is
- differentiate between positive and negative ions
- define cation and anion
- create and name binary compounds
- use the 'criss-cross' method for oxidation numbers/subscripts in a chemical formula

Date	Day	Science Starters	Classwork <b>ERB's this week - special schedules</b>	Homework
1/25	B	Bonding <u>2</u>	5E - go over pg. 95 Molecular Models  5R - Wrap up models, go over answers	5R - pg. 101
1/26	C	none	Absent Today - all classes work on pgs 101-103, chem puzzles if done early	pgs. 101- 103
1/27	D	Bonding <u>5</u>	5E/5G - go over hw 102-03 Molecular Models -go over answers	Kairos Night
1/28	E	Compound Challenge <u>1</u>	Start Activity - Bond with a classmate pg. 104	none
1/29	F	Compound Challenge <u>2</u>	All Classes Haiti - Earthquakes Mini-Lesson	All pgs. 108-09

**Notebook:**

- pg. 96 - 101 - Making Molecular Models, Models Answer Key PPT
- pg. 102 - Changing an Atom Concept Map
- pg. 103 - Practice: Counting Atoms
- pg. 104 - Bond with a Classmate, Tags
- pg. 105 - Analysis - Bond with a classmate
- pg. 106 - Ions Vocab pg. 1
- pg. 107 - Ions Vocab pg. 2
- pg. 108 - Balancing Equations Activity
- pg. 109 - Practice- Balancing Equations pg 2

**Related Links:**

- [Current Events Blog](#)

**Big Idea: Atoms combine to form ionic and covalent bonds.**

**NJCCC Standards: 5.1, 5.2, 5.6**

**Objectives: Students will be able to**

- draw a Lewis Structure
- describe chemical bonding
- predict whether an atom is likely to form bonds
- explain how ionic bonds form
- describe how positive and negative ions form
- explain why ionic compounds are neutral
- explain how covalent bonds form
- know the difference between Ionic and Covalent Bonds
- correctly read a chemical formula
- recognize the individual elements in a formula
- recognize the subscript as the number of atoms
- construct 3-D models of molecules
- visualize how atoms combine to form molecules
- practice ionic and covalent bonding
- explain what an isomer is

Date	Day	Science Starters	Classwork	Homework
1/18	x	none	MLK, Jr.- No School	none
1/19	D	Bohr <u>1</u>	5E/5G - Lewis Structures pg 92 Start Ionic/Covalent Bonds	5E/5G pg. 93
1/20	E	Bohr <u>2</u>	5E/5G - go over hw pg. 93 All - Continue Ionic/Covalent Bonds	5R/5G pg. 95 Sign/Correct Quest
1/21	F	Lewis <u>1</u>	All - Start Making Molecular Models	5E - pg 95
1/22	A	Lewis <u>2</u>	5R/5G - Making Molecular Models	none

**Notebook:**

- pg. 92 - Lewis Structure Notes Booklet/Foldable Pgs 1, 4 & pgs 2, 3, PowerPoint Lesson
- pg. 93 - Practice: Lewis Structures
- pg. 94 - Ionic and Covalent Bonding Notes, Smart Board File
- pg. 95 - Practice - Ionic or Covalent?
- pg. 96 - 101 - Making Molecular Models, Models Answer Key PPT

**Related Links:**

- [Current Events Blog](#)

**Week 17 top**

**Big Idea: Elements are organized on the periodic table according to their properties.**

**Big Idea: Atoms combine to form ionic and covalent bonds.**

**NJCCC Standards: 5.1, 5.2, 5.6**

**Objectives: Students will be able to**

- explain how elements are arranged in the modern periodic table
- compare metals, nonmetals, and metalloids based on their properties and location on the periodic table
- identify the number of valence electrons in an atom
- identify the number of shells, or energy levels, for an atom
- recognize periodic trends of elements, including the number of valence electrons, atomic size, and reactivity
- accurately read and interpret information from the periodic table
- draw a Lewis Structure
- make a Bohr Diagram
- describe chemical bonding
- predict whether an atom is likely to form bonds
- explain how ionic bonds form
- describe how positive and negative ions form
- explain why ionic compounds are neutral
- explain how covalent bonds form
- know the difference between Ionic and Covalent Bonds

Date	Day	Science Starters	Classwork	Homework
1/11	E	Atomic Math <u>1</u>	All - wrap up loose ends. BrainPOP <u>Periodic Table Movie</u>  Shells/Valence Electrons Notes pg. 86	All pg. 88-89
1/12	F	Atomic Math <u>2</u>	All Classes  Go over Vocab pg. 88-89  Continue Shell/Valence pg. 86 Bohr Diagram Notes pg. 90	5R -pg. 87, 91 5E/5G- pg 87
1/13	A	Atomic Math <u>3</u>	5E - Drop Day  5R - Go over hw pg. 87, 91 Begin Lewis Structures pg. 92  5G - Go over hw pg. 87 Finish Bohr Diagrams Notes pg. 90 Start Lewis Structures Notes pg. 92	5G - pg. 91
1/14	B	Atomic Math <u>3</u>  Atomic Math <u>4</u>	5E - Go over hw pg. 87 Bohr Diagrams pg. 90 - Smart Board Bohr Diagrams  5G - Drop Day  5R - Finish Lewis Structures BrainPOP Movie: <u>Ions</u> Start <u>SmartBoard Activity</u> Ionic and Covalent Bonds pg. 94	5E - pg. 91  5R - pg. 93
1/15	C	None	Quest - Atoms/Periodic Table pgs. 82-89, 25 minutes  5R - Go over hw. pg. 93  5E - Go over hw pg. 91 Smart Board Bohr Diagrams  5G - Go over hw pg. 91 Smart Board Bohr Diagrams	none

**Notebook:**



- pg. 84 - [Color the Periodic Table Notes](#), [PPT](#), and [Periodic Table](#) (kept in folder)
- pg. 85 - [Read About it: BrainPOP- Mendeleev](#)
- pg. 86 - [Shells and Valence Electrons Study Guide Notes](#), [PPT](#)
- pg. 87 - Practice: [Periods & Groups](#)
- pg. 88 - [Atoms Vocab pg. 1](#)
- pg. 89 - [Atoms Vocab pg. 2](#)
- pg. 90 - How to Draw Bohr Diagrams: [Notes](#), [PPT](#),
- pg. 91 - Practice: [Bohr Diagrams](#)
- pg. 92 - Lewis Structure Notes Booklet/Foldable Pgs [1, 4](#) & pgs [2, 3](#), [PowerPoint Lesson](#)
- pg. 93 - Practice: [Lewis Structures](#)
- pg. 94 - [Ionic and Covalent Bonding Notes](#), [Smart Board File](#)
- pg. 95 - [Practice - Ionic or Covalent?](#)
- pg. 96 - 100 - [Making Molecular Models](#)

**Related Links:**

- [Current Events Blog](#)
- [Atoms and Elements](#)
- [Atomic Model - pdf/ppt](#)

**Week 16 [top](#)**

**Big Idea:** Atoms are composed of small particles that determine the properties of the atom

**Big Idea:** Elements are organized on the periodic table according to their properties

**NJCCC Standards:** [5.1](#), [5.2](#), [5.6](#)

**Objectives:** Students will be able to

- name and identify the parts of the atom
- determine the number of protons, neutrons, and electrons, and the mass of an element using the periodic table.
- define atomic number and atomic mass
- describe Mendeleev's work on the organization of the Periodic table
- explain how elements are arranged in the modern periodic table
- compare metals, nonmetals, metalloids based on their properties and location on the periodic table
- describe the difference between a period and a group
- explain why elements in a group often have similar properties
- describe the properties of the elements in the groups of the periodic table
- accurately read and interpret information from the periodic table

Date	Day	Science Starters	Classwork	Homework
1/4	F	Element Challenge 1	All Classes - BrainPOP Movie - <a href="#">Atoms</a> Begin Atoms Family Notes, Power Point, and Atoms Family Math pgs. 82-83	Study for Quiz pgs. 78-81  Quest corrections?
			5E - Drop	

1/5	A	Element Challenge <u>2</u>	5R - Finish up Atoms Family, Start coloring the period table notes and ppt pg. 84  5G - Finish up Atoms Family, Start coloring the period table notes and ppt pg. 84	5R/5G - read pg 85
1/6	B	Element Challenge <u>3</u>	5E - Finish up Atoms Family, Start coloring the period table notes and ppt pg. 84  5G - Drop  5R - Coloring the period table notes pg. 84	5E - read pg. 85
1/7	C	None	All Classes - 15 Minutes Atomic Model Timeline Quiz pgs. 78-81  5R - Continue Coloring Periodic Table, Notes, Video Clips  5E - Continue Coloring Periodic Table, Notes, Video Clips  5G - Continue Coloring Periodic Table, Notes, Video Clips	5R - sign and correct quiz
1/8	D	Element Challenge <u>4</u>	5 R - Drop  5E - Continue Coloring Periodic Table, Notes, Video Clips  5G - Continue Coloring Periodic Table, Notes, Video Clips	5E/5G  sign and correct quiz
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 82 - <u>Atoms Family Notes, PPT</u></li> <li>pg. 83 - <u>Atoms Family Math</u></li> <li>pg. 84 - <u>Color the Periodic Table Notes, PPT, and Periodic Table</u> (kept in folder)</li> <li>pg. 85 - <u>Read About it: BrainPOP- Mendeleev</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u></li> <li><u>Atoms and Elements</u></li> <li><u>Atomic Model - pdf/ppt</u></li> </ul>				

**Week 15 top**

**Big Idea:** Atoms are composed of small particles that determine the properties of the atom

**Big Idea:** Elements are organized on the periodic table according to their properties

**NJCCC Standards:** 5.1, 5.2, 5.6

**Objectives:** Students will be able to

- describe some of the experiments that lead to the current atomic theory
- compare the different atomic models
- explain how the atomic theory has changed as scientists have discovered new information about the atom
- describe the size of the atom
- name the parts of the atom

Classwork Special Schedules All Week and shortened class periods for Grandparents Day & Christmas Sing Rehearsals and Shows				
Date	Day	Science Starters		Homework
12/14	B	None	Go over Vocab HW (5G - Drop Day, check at Acad. Support)  5R/5E - Discuss Activity - How do we know what something looks like if we can't see it?  BrainPOP - <u>Atomic Model Movie</u> Notes  5R/5E - Start Atomic Timeline	review for Quest pgs. 62-77
12/15	C	None	Quest - 20 minutes  5G- Discuss Activity - How do we know what something looks like if we can't see it?  BrainPOP - <u>Atomic Model Movie</u> Notes  5E/5R - only had time for Quest	All - Read pgs. 80-81
12/16	D	None	5G -Atomic Timeline Notes  5E -Atomic Timeline Notes  5R - Drop Day	Sign/Correct Quest
12/17	E	None	Grand Parents Day Christmas Sing at 1:00 pm  5R - Atomic Model Timeline Notes  5E/5G - No class - All classes take History Test in MMR for periods 2-3	5R - Sign Correct Quest
12/18	X	None	12:00 pm Dismissal 7:00 pm Christmas Sing  No Science Classes Today - Special Activities planned	None  Holiday Break

**Notebook:**

- pg. 76 - Cut 'n Paste Matter Vocab pg 1
- pg. 77 - Cut 'n Paste Matter Vocab pg 2
- pg. 78 - BrainPOP - Atomic Model Notes
- pg. 79 - Foldable: Atomic Model Timeline, PDF Notes
- pg. 80 - Read About It: BrainPOP Gold Foil Experiment
- pg. 81 - Read About It: BrainPOP Niels Bohr

**Related Links:**

- [Current Events Blog](#)

- Behavior of Matter
- Gasses, Liquids, and Solids
- Reverisble/Irreversible Changes
- Melting and Freezing Points
- Compounds and Mixtures
- Mixtures and Solutions - Junkyards
- Atoms and Elements
- Solids, Liquids, and Gases pdf/ppt
- Mixtures and Solutions - pdf/ppt
- Atomic Model - pdf/ppt

**Week 14 top**

**Big Idea:** Matter can be classified into elements, compounds, and mixtures

**Big Idea:** Atoms are composed of small particles that determine the properties of the atom

**NJCCC Standards:** 5.1, 5.2, 5.6

**Objectives:** Students will be able to

- give examples of common compounds
- describe properties of mixtures
- know that mixtures can be separated by physical means
- know and identify the parts of a solution- solute and solvent
- describe some of the experiments that lead to the current atomic theory
- compare the different atomic models
- explain how the atomic theory has changed as scientists have discovered new information about the atom
- describe the size of the atom
- name the parts of the atom

Date	Day	Science Starters	Classwork	Homework
12/7	C	None	Quest - 20 minutes 5R - Finish Rainbow Lab pg. 72 5E/5G - Go over HW pg. 71 Start Rainbow Lab pg. 72	5R - pg. 73 & Sign Quest
12/8	D	Common Cmpds <u>4</u>	5E/5G - Complete Rainbow Lab pg. 72	5E/5G pg. 73 & Sign Quest
12/9	E	Common Cmpds <u>5</u>	All - Chromatography Lab pg. 74	pg. 75
12/10	F	None	All Classes: Go over hw pg. 75 Set up new notebooks Activity - How do we know what something looks like if we can't see it? (Monday - BrainPOP - <u>Atomic Model Movie</u> , Start Atomic Timeline Notes)	<u>Matter Study Guide ppt</u> Vocab pg. 76 & 77
				review for

12/11	A	None	I will not be in school today - sub plans	Quest pgs. 62-77
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 72 - Solutions - <a href="#">Rainbow Lab</a></li> <li>pg. 73 - Analysis Rainbow Lab</li> <li>pg.74 - <a href="#">Chromatography Lab</a></li> <li>pg. 75 - Analysis Chromatography Lab</li> <li>pg. 76 - <a href="#">Cut 'n Paste Matter Vocab pg 1</a></li> <li>pg. 77 - <a href="#">Cut 'n Paste Matter Vocab pg 2</a></li> <li>pg. 78 - BrainPOP - <a href="#">Atomic Model Notes</a></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><a href="#">Current Events Blog</a></li> <li><a href="#">Behavior of Matter</a></li> <li><a href="#">Gasses, Liquids, and Solids</a></li> <li><a href="#">Reverisble/Irreversible Changes</a></li> <li><a href="#">Melting and Freezing Points</a></li> <li><a href="#">Compounds and Mixtures</a></li> <li><a href="#">Mixtures and Solutions - Junkyards</a></li> <li><a href="#">Atoms and Elements</a></li> <li><a href="#">Solids, Liquids, and Gases pdf/ppt</a></li> <li><a href="#">Mixtures and Solutions - pdf/ppt</a></li> <li><a href="#">Atomic Model - pdf/ppt</a></li> </ul>				

### Week 13 [top](#)

Big Idea: Matter can be classified into elements, compounds, and mixtures				
NJCCC Standards: <a href="#">5.1</a> , <a href="#">5.2</a> , <a href="#">5.6</a>				
<b>Objectives:</b> Students will be able to <ul style="list-style-type: none"> <li>describe pure substances</li> <li>describe the characteristics of elements and give examples</li> <li>explain how elements can make up molecules and compounds</li> <li>describe properties of compounds</li> <li>explain how compounds can be broken down into elements</li> <li>give examples of common compounds</li> <li>differentiate between a molecule and a compound</li> <li>describe properties of mixtures</li> <li>know that mixtures can be separated by physical means</li> <li>know and identify the parts of a solution- solute and solvent</li> <li>describe particles in a suspension and give examples</li> <li>describe and give and examples of a colloid</li> <li>differentiate between colloids, solutions, and suspensions</li> <li>list similarities shared between colloids and suspensions, and colloids and solutions</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
11/30	X	none	No Classes - Thanksgiving Break	none
			All - discuss Candle Observation	

12/1	E	Common Cmpds 1	5R - go over Analysis/Conclusion BrainPOP - <u>Compounds and Mixtures</u> All - Start pg. 66 Elements, Compounds, Mixtures Notes, ppt Activity	5G/5E - pg. 65  All - Current Event due 12/2
12/2	F	Common Cmpds 2	5E/5G - go over Candle Obs. analysis/conclusion All - Finish E,C,M notes and ppt Activity and Complete Map on pg 67	All - pg. 69
12/3	A	Common Cmpds 3	5E - Drop Day 5R/5E - Lego Lab pg. 68 & start pgs. 70-71 in class	Quiz Monday pgs. 50 - 61 5R/5G pg. 71
12/4	B	Common Cmpds 3  Common Cmpds 4	5G- Drop Day 5E - Lego Lab pg. 68 Start pgs. 70-71 in class 5R - Rainbow Lab pg. 72	Quiz Monday pgs. 50 - 61  5E - pg. 71

**Notebook:**

- pg. 62 - 64 - Candle Observations
- pg. 65 - Candle Observation Analysis
- pg. 66 - Elements, Compounds, & Mixtures Notes, PPT Activity
- pg. 67 - Map: Elements, Compounds, & Mixtures
- pg. 68 - Lego Activity - Building Blocks of Matter
- pg. 69 - Read about it: BrainPOP - Air, Earth, Water, Fire
- pg. 70 - Categorize: Element, Compound, or Mixture?
- pg. 71 - Practice: Element, Compound, or Mixture?
- pg. 72 - Solutions - Rainbow Lab
- pg. 73 - Analysis Rainbow Lab
- pg. 74 - Chromatography Lab
- pg. 75 - Analysis Chromatography Lab

**Related Links:**

- Current Events Blog
- Behavior of Matter
- Gasses, Liquids, and Solids
- Reversible/Irreversible Changes
- Melting and Freezing Points
- Compounds and Mixtures
- Mixtures and Solutions - Junkyards
- Atoms and Elements
- Solids, Liquids, and Gases pdf/ppt
- Mixtures and Solutions - pdf/ppt

**Week 12 [top](#)****Big Idea:** Matter is described by its properties and may undergo changes**NJCCC Standards:** [5.1](#), [5.2](#), [5.6](#)**Objectives:** Students will be able to

- give examples for physical properties of matter
- give examples of physical change
- identify indicators that a physical change took place

- describe two chemical properties: flammability and reactivity
- gives examples of chemical change
- explain what happens during a chemical change
- identify indicators that a chemical change took place
- distinguish between physical and chemical changes
- record detailed observations

Date	Day	Science Starters	Classwork	Homework
11/23	C	none	<b>Famous Scientist Poster Due Today</b> <b>Research - Upload to First Class</b>  5G - Go over hw pg. 59 Physical & Chemical Changes Activity pg. 60  5E - Go over hw pg. 59 Physical & Chemical Changes Activity pg. 60  5R - Go over hw pg. 61 Candle Observation pgs. 62-64	5G/5E pg. 61  5R - Current Event due 12/2
11/24	D	none	<b>Special Schedule Today</b> 5G/5E - go over hw pg. 61 Candle Observation	5E/5G - Current Event due 12/2
11/25	x	none	No School	
11/26	x	none	Happy Thanksgiving!	
11/27	x	none	No School! See you on Tuesday!	

**Notebook:**

- pg. 60 - **Physical & Chemical Change Activity**
- pg. 61 - **Analysis: Physical & Chemical Change Activity**
- pgs. 62 - 64 - **Candle Observations**
- pg. 65 - **Candle Observation Analysis**

**Related Links:**

- [Current Events Blog](#)
- [Famous Scientist Wanted Poster Lesson Plan Due 11/23](#)
- [Behavior of Matter](#)
- [Gasses, Liquids, and Solids](#)
- [Reversible/Irreversible Changes](#)
- [Melting and Freezing Points](#)
- [Compounds and Mixtures](#)
- [Mixtures and Solutions - Junkyards](#)
- [Atoms and Elements](#)
- [Solids, Liquids, and Gases pdf/ppt](#)
- [Mixtures and Solutions - pdf/ppt](#)

**Week 11 [top](#)**

**Big Idea:** Matter exists in various physical states, which are determined by the movement of the matter's particles.

**Big Idea:** Matter is described by its properties and may undergo changes

**NJCCC Standards:** [5.1](#), [5.2](#), [5.6](#)

**Objectives: Students will be able to**

- describe the properties shared by all particles of matter
- describe the four states of matter
- explain the differences between the four states of matter
- describe how energy is involved in changes of state
- describe what is happening during melting and freezing
- compare evaporation and condensation
- explain what happens during sublimation
- give examples for physical properties of matter
- give examples of physical change
- identify indicators that a physical change took place
- describe two chemical properties: flammability and reactivity
- gives examples of chemical change
- explain what happens during a chemical change
- identify indicators that a chemical change took place
- distinguish between physical and chemical changes

Date	Day	Science Starters	Classwork	Homework
11/16	D	Ologist Set 1	BrainPOP Movie: <u>States of Matter</u> 5E - States of Matter Notes pgs. 50-51 5G - States of Matter Notes pgs 50-51 5R - Drop	5E/5G - States of Matter Vocab pg. 52
11/17	E	Ologist Set 2	All - go over States of Matter Vocab HW pg. 52  (5R - Show BrainPOP States of Matter Movie and go over pg 51, power outage last class)  BrainPOP Movie: <u>Matter Changing States</u> BrainPOP - Phase Changes Activity pg. 54  Smart Board Activity: States & Phases Venn Diagram pg. 55	All - Phase Change Vocab pg. 53  Read 56
11/18	F	Ologist Set 3	All - go over Vocab HW pg. 56 BrainPOP Movie: <u>Property Changes</u>  All - Start Physical and Chemical Changes Foldable pg. 58	All - Read pg. 57
11/19	A	Ologist Set 4	5E - Drop Day  5R - Continue Physical and Chemical Changes Foldable pg. 58  5G - Continue Physical and Chemical Changes Foldable pg. 58	5G - Project Due Monday  5R/5G - do pg. 59
11/20	B	Ologist Set 5	5G - Drop Day  5R - Physical & Chemical Changes Activity pg. 60  5E - Continue Physical and Chemical Changes Foldable pg. 58	5R/5E - Project Due Monday  5R pg 61  5E - do pg. 59

**Notebook:**



- pg. 50 - BrainPOP: States of Matter Notes
- pg. 51 - BrainPOP - States of Matter Graphic Organizer
- pg. 52 - States of Matter Vocab
- pg. 53 - Phase Change Vocab
- pg. 54 - BrainPOP: Phase Changes Activity
- pg. 55 - Review: States & Phases Venn Diagram
- pg. 56 - Read About it: BrainPOP - hot water freezes faster?
- pg. 57 - Read About it: BrainPOP - What's an icebox?
- pg. 58 - Physical and Chemical Properties, Changes Foldable
- pg. 59 - Practice: Physical & Chemical Properties, BrainPOP Property Changes
- pg. 60 - Physical & Chemical Change Activity
- pg. 61 - Analysis: Physical & Chemical Change Activity
- pgs. 62 - 64 - Candle Observations
- pg. 65 - Candle Observation Analysis

#### Related Links:

- Current Events Blog
- BrainPOP - States of Matter Movie, Phase Changes Movie, Property Changes Movie
- Famous Scientist Wanted Poster Lesson Plan Due 11/23
- Behavior of Matter
- Gasses, Liquids, and Solids
- Reversible/Irreversible Changes
- Melting and Freezing Points
- Compounds and Mixtures
- Mixtures and Solutions - Junkyards
- Atoms and Elements
- Solids, Liquids, and Gases pdf/ppt
- Mixtures and Solutions - pdf/ppt

#### Week 10 [top](#)

**Big Idea:** "If I have seen further, it is by standing on the shoulders of giants."  
Sir Isaac Newton

**NJCCC Standards:** [5.1](#), [5.2](#), [5.3](#)

**Objectives:** Students will be able to

- complete a unit assessment
- appreciate how scientists have contributed to the advancement of science and technology over time
- use technology and reference materials to research the life and work of a scientist
- present their information in the form of a "wanted poster" featuring their scientist

Date	Day	Science Starters	Classwork	Homework
11/9	E	none	All Classes Discuss results/reflections from Penny Boat Challenge Review for test pgs 8-48	Study
11/10	F	none	Unit Test - pages 8-48	None

11/11	A	none	5E - Drop 5G - Library - Famous Scientist Research Project, bring laptops 5R - Library - Famous Scientist Research Project, bring laptops	None
11/12	B	none	5R - Library - day 2 research, project due 11/23, bring laptops 5E - Library - Famous Scientist Research Project, bring laptops 5G - Drop	5R - Work on project 5E/5G - none
11/13	C	none	5E - Library - day 2 research, project due 11/23, bring laptops 5G - Library - day 2 research, project due 11/23, bring laptops 5R - States of Matter Notes	5E/5G - work on project 5R - States of Matter Vocab pg. 52
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 48 - <u>Penny Boat Challenge</u></li> <li>pg. 49 - Analysis/Reflection: Penny Boat Challenge &amp; Class Results</li> <li>pg. 50 - BrainPOP: <u>States of Matter Notes</u></li> <li>pg. 51 - BrainPOP - <u>States of Matter Graphic Organizer</u></li> <li>pg. 52 - <u>States of Matter Vocab</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u></li> <li>BrainPOP - States of <u>Matter</u> Movie</li> <li><u>Famous Scientist Wanted Poster Lesson Plan</u></li> </ul>				

Week 9 [top](#)

<b>Big Idea:</b> Forces in fluids are related to pressure and density and can affect the motion of objects in the fluid				
<b>NJCCC Standards:</b> <u>5.1</u> , <u>5.2</u> , <u>5.3</u> , <u>5.4</u>				
<b>Objectives:</b> Students will be able to <ul style="list-style-type: none"> <li>understand that objects with a density less than water will float, and objects with a density greater than water will sink</li> <li>predict whether an object will float or sink in a fluid</li> <li>explain how the overall density of an object can change</li> <li>understand the concept that objects float due to the buoyant force of the water it displaces</li> <li>realize that when the mass of water displaced is equal to or greater than the mass of the object, the object will float</li> <li>design a boat to carry the largest cargo of pennies and stay afloat</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
11/2	F	Density <u>4</u>	All Classes <ul style="list-style-type: none"> <li>Buoyancy Notes/Vocab pgs 42-43</li> <li>BrainPOP - <u>Buoyancy Movie</u></li> <li>Bill Nye: <u>Buoyancy Clip Part 1/3</u></li> </ul>	All - complete pg. 43

11/3	A	Density 6	5E - Drop 5R - Cartesian Diver Demo pg. 44 5G - Cartesian Diver Demo pg. 44	5R/5G Read pgs. 45-46  Vocab #2 pg 47  Study for quiz
11/4	B	Density 6 Density 7	5G - Drop 5E - Cartesian Diver Demo pg. 44 5R - Go over Vocab HW Start Penny Boat Challenge pg. 48	5E Read pgs. 45-46  Vocab #2 pg. 47  Study for Quiz
11/5	C	none	All - 15 Minute Quiz pgs. 36 - 46  5R - Penny Boat Challenge (Romans get quiz back at end of day)  5E - Go over Vocab HW Start Penny Boat Challenge pg. 48  5G - Go over Vocab HW Start Penny Boat Challenge pg. 48	5R - write up pg. 49 & sign quiz
11/6	D	Density 7	5E - Penny Boat Challenge Quiz returned  5G - Penny Boat Challenge quiz returned  5R - Drop	5E/5G - write up pg. 49  Sign quiz
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 42 - <u>Buoyancy Notes</u></li> <li>pg. 43 - Review: <u>Buoyancy Cut 'n Paste Vocab</u></li> <li>pg. 44 - <u>Cartesian Diver Observation</u></li> <li>pg. 45 - Read About it <u>BrainPOP - Cartesian Diver</u></li> <li>pg. 46 - Read About it <u>BrainPOP - Swim Bladder</u></li> <li>pg. 47 - Review: <u>Vocab List #2</u></li> <li>pg. 48 - <u>Penny Boat Challenge</u></li> <li>pg. 49 - Analysis/Reflection: Penny Boat Challenge &amp; Class Results</li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u></li> </ul>				

### Week 8 [top](#)

<b>Big Idea:</b> Forces in fluids are related to pressure and density and can affect the motion of objects in the fluid
<b>NJCCC Standards:</b> <a href="#">5.1</a> , <a href="#">5.2</a> , <a href="#">5.3</a>
<b>Objectives:</b> Students will be able to

- identify the units used to measure mass, volume, & density
- find the mass of a solid to the nearest 0.1 gram
- take and record precise measurements
- describe the relationship between mass and volume as it relates to density
- use the following formulas when appropriate:  $d=m/v$ ,  $m=vxd$ , &  $v=m/d$
- complete a self-paced interactive density tutorial
- state that the density of water is  $1\text{g/cm}^3$
- understand that objects with a density less than water will float, and objects with a density greater than water will sink
- predict whether an object will float or sink in a fluid
- explain how the overall density of an object can change

Date	Day	Science Starters	Classwork	Homework
			5R - go over hw pg 37 Start Float or Sink Activity pg. 38	
10/26	A	Mass <u>3</u>	5G - go over hw pg 37 Start Float or Sink Activity pg. 38  5E - drop day	All - review for <b>quiz</b>
10/27	B	Density <u>1</u>  Mass <u>3</u>	5R - Complete Float or Sink pgs 38-39 Start Dunkin' for density pg. 40  5E - go over hw pg 37 Start Float or Sink Activity pg. 38  5G - drop day	All - review for <b>quiz</b>
10/28	C	None	All - 15 minute <b>Quiz</b> pgs. 28 - 37  5R - Dunkin' for density pg. 40  5E - Complete Float or Sink pgs 38-39 Start Dunkin for Density  5G- Complete Float or Sink pgs 38-39 Start Dunkin for density pg. 40	<b>Kairos Night</b>  <b>No HW All Classes</b>
10/29	D	Density <u>1</u>	5R - Drop 5E- Dunkin' for density pg. 40  5G- Dunkin' for density pg. 40	Sign Quiz
10/30	E	Density <u>3</u>	All - 'D4D' Analysis pg. 41 class data - excel spreadsheet  Catch up time/Challenge Puzzles Happy Halloween!	Current Event Due "F" Day - Monday

**Notebook:**

- pg. 36 - Mass, Volume, Density Notes Foldable
- pg. 37 - Practice: Mass, Volume, or Density?
- pg. 38 - Float or Sink - Laptop Activity Link
- pg. 39 - Analysis: Float or Sink Lab
- pg. 40 - Dunkin' for Density
- pg. 41 - Analysis: Dunkin' for Density

**Related Links:**

- [Current Events Blog](#)

**Week 7** [top](#)**Bid Idea: Matter is described by its properties and may undergo changes****NJCCC Standards: [5.1](#), [5.2](#), [5.3](#)****Objectives: Students will be able to**

- identify the units used to measure mass, volume, & density
- complete a self-paced tutorial online for recording masses on a Triple Beam Balance
- hold, carry, and use the Triple Beam Balance correctly
- identify the parts of a Triple Beam Balance
- find the mass of a solid to the nearest 0.1 gram
- take and record precise measurements
- differentiate between mass and weight
- realize that density is a physical property of matter
- describe the relationship between mass and volume as it relates to density
- use observations to predict the relative density of an object
- use the following formulas when appropriate:  $d=m/v$ ,  $m=vxd$ , &  $v=m/d$
- complete a self-paced interactive density tutorial
- state that the density of water is  $1\text{g/cm}^3$
- understand that objects with a density less than water will float, and objects with a density greater than water will sink
- read and analyze news articles from online sources
- write a summary and reflection for an article of their choice
- relate current events to their daily lives
- post comments to a class blog
- read blog comments posted by fellow classmates

Date	Day	Science Starters	Classwork	Homework
10/19	C	none	All Classes - 15 min. quiz pg. 20-29 5R - TBB Lab pg. 32-33 5G - Laptop - TBB Activity pg. 30 5E - Complete Laptop - TBB Activity pg	5R - Complete pgs. 32-33  5G - Complete pg 30 & Read pg. 31
10/20	D	Length 5	5R - drop day 5G - TBB Lab pg. 32-33 5E - TBB Lab pg. 32-33	5G/5E - complete pgs. 32-33  <b>ALL - Sign Quiz</b>
10/21	E	<u>Mass 1</u>	All Classes - Demo/Activity - density bottles BrainPOP Movie: <u>Measuring Matter</u> BrainPOP Handouts pg. 34-35	All - Read pg. 34  <b>Current Event Due "F" Day</b>
10/22	F	<u>Mass 2</u>	Mass, Volume, Density Notes pg 36	All - Complete pg. 37
10/23	X	none	Parent Conferences - No Class Today	none

**Notebook:**

- pg. 30 - [Reading a Triple Beam Balance - Laptop Activity Link](#)
- pg. 31 - Vocab: [TBB Balance](#)
- pg. 32 - [TBB Mass Lab](#)
- pg. 33 - TBB Analysis
- pg. 34 - BrainPOP - [Archimedes](#)
- pg. 35 - BrainPOP - [Mass, Volume, Density Graphic Organizer](#)
- pg. 36 - [Mass, Volume, Density Notes Foldable](#)
- pg. 37 - Practice: [Mass, Volume, or Density?](#)

**Related Links:**

- BrainPOP Movies: [Metric System](#), [Measuring Matter](#)
- [Current Events Blog](#)
- Fun Brain [Measure it!](#) Practice reading a ruler
- [Pour to Score](#) - logic problem using volume
- [Can you fill it?](#) Fill the container with the fewest # of pours
- [Can you balance the animals?](#) Uses metric and non metric units, practice conversions.
- [Can you balance the poddles?](#)

**Week 6 [top](#)**

**Bid Idea:** Matter is described by its properties and may undergo changes

**NJCCC Standards:** [5.1](#), [5.2](#), [5.3](#)

**Objectives:** Students will be able to

- read and analyze news articles from online sources
- write a summary and reflection for an article of their choice
- relate current events to their daily lives
- post comments to a class blog
- read blog comments posted by fellow classmates
- select the appropriate units to use for particular measurements
- describe the two properties of matter: mass and volume
- identify the units used to measure mass and volume
- use a ruler to measure length in cm and/or mm
- make metric conversions by moving the decimal place
- find the volume of a rectangular prism using the formula  $L \times W \times H$
- define the word meniscus
- accurately use a graduated cylinder to measure volume
- find the volume of irregular objects using water displacement
- recognize that  $1 \text{ cm}^3$  is equivalent to 1 mL
- complete a self-paced tutorial online for measurement skills, collecting and recording data, and using a data chart
- complete a self-paced tutorial online for recording masses on a Triple Beam Balance

Date	Day	Science Starters	Classwork	Homework
10/12	X	none	Columbus Day - no school	pg. 23 due Tues.
			All Classes Go over HW pg. 23	All - current event post due Wed.

10/13	E	Length 4	Discuss Irregular Volume Lab Results Small Groups: Skills Review pgs. 24 - 27 in class	Complete class work if not done
10/14	F	Volume 1	All Classes Current Event Post Due Today Laptop - BBC Measure Activity pg 28	pg 29
10/15	A	Volume 2	<b>Special Schedule for field trip : The Premier of "Morristown - Where America Survived" 25 min classes today</b> 5R- Go over hw, introduce TBB Activity 5G- Go over hw, introduce TBB Activity 5E - Drop	none Quiz Mon
10/16	B	Length 5 Volume 2	5R- Complete TBB Laptop Activity pg. 30 5E- go over hw, Introduce and start TBB Activity pg. 30 5G- Drop	5R/5E - Read pg 31 Quiz Mon pgs 20-29

**Notebook:**

- pg. 22 - Irregular Volume Lab: Pre-Lab, Water Displacement
- pg. 23 - Practice: Reading a graduated cylinder, water displacement, volume (page 1)
- pg. 24 - Practice Reading a Ruler pg 1
- pg. 25 - Practice Using a Ruler cm #1-10, mm #1-10
- pg. 26 - Practice using the formula L x W x H pg.1
- pg. 27 - Practice: Reading a graduated cylinder, water displacement, volume (page 2)
- pg. 28 - BBC Measures - Laptop Activity Link
- pg. 29 - Practice: Metric Tic Tac Toe, Volume
- pg. 30 - Reading a Triple Beam Balance - Laptop Activity Link
- pg. 31 - Vocab: TBB Balance

**Related Links:**

- BrainPOP Movies: Metric System, Measuring Matter
- Current Events Blog
- Fun Brain Measure it! Practice reading a ruler
- Pour to Score - logic problem using volume
- Can you fill it? Fill the container with the fewest # of pours
- Can you balance the animals? Uses metric and non metric units, practice conversions.
- Can you balance the poddles?

**Week 5 top**

**Bid Idea:** Matter is described by its properties and may undergo changes

**NJCCC Standards:** 5.1, 5.2, 5.3

**Objectives:** Students will be able to

- name the tools used to collect and analyze data
- explain the importance of the International System of Units

- select the appropriate units to use for particular measurements
- describe the two properties of matter: mass and volume
- identify the units used to measure mass and volume
- use a ruler to measure length in cm and/or mm
- make metric conversions by moving the decimal place
- find the volume of a rectangular prism using the formula  $L \times W \times H$
- define the word meniscus
- accurately use a graduated cylinder to measure volume
- find the volume of irregular objects using water displacement
- recognize that  $1 \text{ cm}^3$  is equivalent to 1 mL
- read and analyze news articles from online sources
- write a summary and reflection for an article of their choice
- relate current events to their daily lives
- post comments to a class blog
- read blog comments posted by fellow classmates

Date	Day	Science Starters	Classwork	Homework
10/5	F	Length 1	All - Current Event Blog Post Due All - Intro to Metric System pg 18	pg 19
10/6	A	Length 2	5E - drop 5R - Regular Volume pg. 20 5G - Regular Volume pg. 20	5R & 5G pg 21
10/7	B	Length 2 Length 3	5G - drop 5E- go over hw pg. 19 Start Regular Volume pg. 20 5R - go over pg 21 hw Complete regular volume lab Introduce irregular volume lab	5E - pg 21 All - study for quiz
10/8	C	None	All - Quiz #2 5E- go over pg 21 hw Complete regular volume lab Introduce irregular volume lab 5G- go over pg 21 hw Complete regular volume lab Introduce irregular volume lab 5R- Irregular Volume pg. 22	5R pg. 23
10/9	D	Length 3	5R- drop 5E- Irregular Volume pg. 22 5G- Irregular Volume pg. 22	All - current event post due Wed. 5E & 5G pg 23

**Notebook:**

- pg. 18 - Metric System Notes Foldable
- pg. 19 - Practice: Metric Units
- pg. 20 - Volume Lab: Pre-Lab, Length, Width, & Height
- pg. 21 - Practice: Measuring in cm & mm
- pg. 22 - Irregular Volume Lab: Pre-Lab, Water Displacement



- pg. 23 - Practice: Reading a graduated cylinder, water displacement, volume (page 1)
- pg. 100 - Instructions for using current events blog
- Back-Inside Cover - Science Buddies

**Related Links:**

- BrainPOP Movies: Metric System, Measuring Matter
- Current Events Blog
- Fun Brain Measure it! Practice reading a ruler
- Pour to Score - logic problem using volume
- Can you fill it? Fill the container with the fewest # of pours
- Can you balance the animals? Uses metric and non metric units, practice conversions.
- Can you balance the poddles?

**Week 4 top**

**Big Idea:** Scientific Progress is made by asking meaningful questions and conducting careful investigations.

**NJCCC Standards:** 5.1, 5.2, 5.3

**Objectives:** Students will be able to

- use a stem and leaf plot to collect and analyze data, and make a conclusion
- describe the effects of soap on surface tension
- navigate a blog
- use a tag cloud to find an article for a topic of their choice
- write a summary and personal reflection for a science news article
- post a comment to our science current events blog

Date	Day	Science Starters	Classwork	Homework
9/28	X	none	No School Today - Yom Kippur	none
9/29	B	<u>B Words</u>	5G - Drop Day  5E - Go over Vocab pg 15 Start Drops of Water on a Penny Lab pg 16.  5R - Continue Drops of Water on a Penny	All - Make sure your notebook is up to date
9/30	C	none	All - Notebook Quiz  5G & 5R - Wrap up Penny Lab  5E - Continue Penny Lab	5G & 5R pg.17
10/1	D	<u>C Words</u>	5R - Drop  5E- Wrap Up Penny Lab, set up Science Buddies  5G - Introduce Current Events New Seats/Science Buddies Laptops: Introduce Current Events	5E - pg. 17  All - Sign Quiz
			5R & 5E - New Seats Laptops - Intro Current Events, type	<u>Current event</u>

10/2	E	<u>Penny Challenge</u>	rough draft in Word before posting 5G - Continue Current Events, type rough draft in Word before posting	<u>posted by Monday</u>
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 15 - Review: <u>Vocab List # 1</u></li> <li>pg. 16 - <u>Drops of Water on a Penny</u></li> <li>pg. 17 - Analysis</li> <li>pg. 100 - Instructions for using current events blog</li> <li>Back-Inside Cover - <u>Science Buddies</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li><u>Current Events Blog</u></li> </ul>				

**Week 3 top**

<b>Big Idea: Scientific Progress is made by asking meaningful questions and conducting careful investigations.</b>				
<b>NJCCC Standards: <u>5.1</u>, <u>5.2</u>, <u>5.3</u></b>				
<b>Objectives: Students will be able to</b> <ul style="list-style-type: none"> <li>work cooperatively with their lab partner and lab group</li> <li>become familiar with and follow lab safety rules</li> <li>differentiate between observations and inferences</li> <li>differentiate between quantitative and qualitative data</li> <li>develop reasonable explanations using their observations and prior knowledge</li> <li>observe the "skin" that forms as a result of surface tension and explain, on a molecular level, why certain objects are able to float on the surface</li> <li>use a plastic pipette properly and with good control</li> <li>use a stem and leaf plot to collect and analyze data, and make a conclusion</li> <li>describe the effects of soap on surface tension</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
9/21	C	<u>Safety 2</u>  <u>Lab Equip 1</u>	5E- Go over pg. 11 Complete Mystery Footprints Activity, write conclusion If time, set up Science Buddies  5G & 5R - D&T Activity pg. 12	none
9/22	D	<u>Lab Equip 2</u>  <u>Lab Equip 1</u>	5G - continue D&T activity pg. 12  5R - drop day 5E - Start D&T activity pg. 12	5G - pg. 13
9/23	E	<u>Lab Equip 2</u>  <u>Lab Equip 3</u>	5E & 5R - continue D&T activity pg 12  5G - Surface Tension Demo pg 14	5E & 5R - pg 13  5G - pg 15
9/24	F	<u>Lab Equip 3</u>  <u>Lab Equip 4</u>	5E & 5R - Surface Tension Demo pg 14  5G- Drops of water on a Penny pg 16	5E & 5R - pg 15

9/25	A	<u>Lab Equip 4</u>  <u>B Words</u>	5E - drop day 5R- Start Drops of Water on a Penny Lab pg 16  5G -Continue Drops of water on a Penny Lab pg 16	none
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 10 - Mystery Footprints <u>PPT, Notes</u></li> <li>pg 11 - <u>Practice: Qualitative, Quantitative, Observation, Inference</u></li> <li>pg. 12 - <u>D&amp;T Class Activity</u></li> <li>pg. 13 - Analysis - D&amp;T Activity</li> <li>pg. 14 - <u>Surface Tension Demo</u></li> <li>pg. 15 - Review: <u>Vocab List # 1</u></li> <li>pg. 16 - <u>Drops of Water on a Penny</u></li> <li>Back-Inside Cover - <u>Science Buddies</u></li> </ul>				
<b>Related Links:</b> <ul style="list-style-type: none"> <li>BrainPOP Movies: <u>Scientific Method, Water</u></li> </ul>				

Week 2: [top](#)

<b>Big Idea:</b> Scientific Progress is made by asking meaningful questions and conducting careful investigations.				
<b>NJCCC Standards:</b> <u>5.1, 5.2</u>				
<b>Objectives:</b> Students will be able to <ul style="list-style-type: none"> <li>view themselves as scientists</li> <li>work cooperatively with their lab partner and lab group</li> <li>recognize common safety symbols and know their meanings</li> <li>become familiar with and follow lab safety rules</li> <li>differentiate between observations and inferences</li> <li>differentiate between quantitative and qualitative data</li> </ul>				
Date	Day	Science Starters	Classwork	Homework
9/14	D	<u>A Words</u>	5G & 5E - Complete Scavenger Hunt Begin "I am a scientist"	none
9/15	E	<u>Safety 1</u>	All - Complete "I am a scientist" SpongeBob Safety Rules, pg 9	none
9/16	F	<u>Safety Picture 1</u>	All - <u>pg. 9</u> Review Safety Rules Class Discussion: Observations, Inferences, Quantitative & Qualitative, begin Mystery Footprints	<u>pg. 11</u>
9/17	A	<u>Safety 2</u>	5R & 5G Go over pg. 11 Complete Mystery Footprints Activity, write conclusion If time, set up Science Buddies	none
9/18	B	none	All Classes - Outdoor Experience	none
<b>Notebook:</b> <ul style="list-style-type: none"> <li>pg. 6 - <u>Scavenger Hunt</u></li> <li>pg. 7 - <u>I am a Scientist</u></li> <li>pg. 8 - <u>SpongeBob Safety Challenge</u></li> <li>pg. 9 - <u>What's wrong Safety Pictures</u></li> <li>pg. 10 - Mystery Footprints <u>PPT, Notes</u></li> <li>pg 11 - <u>Practice: Qualitative, Quantitative, Observation, Inference</u></li> <li>pg. 12 - <u>D&amp;T Class Activity</u></li> </ul>				



- **Back-Inside Cover - Science Buddies**

**Related Links:**

- **BrainPOP Movies: Scientific Method,**

**Week 1: top**

**Big Idea: Scientific Progress is made by asking meaningful questions and conducting careful investigations.**

**NJCCC Standards: 5.1, 5.2**

**Objectives:**

- students will become familiar with classroom procedures and the layout of our classroom
- students will view themselves as scientists

Date	Day	Science Starters	Classwork	Homework
9/7			Labor Day	
9/8			No School - New Student Picnic	
9/9	A	<u>First Day</u>	First Day of School! 5R & 5 G- Welcome, Procedures, set up notebook, Scavenger Hunt  5E - Drop Day	none
9/10	B	<u>A Words</u>  <u>First Day</u>	5R - Complete Scavenger Hunt Begin "I am a scientist"  5G - Drop Day  5E - Welcome, Procedures, set up notebook, Scavenger Hunt	none
9/11	C	none	All Classes - Special Tech Class during Science Periods today	none

**Notebook:**

- pg. 6 - Scavenger Hunt
- pg. 7 - I am a Scientist
- pg. 8 - SpongeBob Safety Challenge
- pg. 9 - What's wrong Safety Pictures

**Related Links:**

- **BrainPOP Movies: Scientific Method,**

**Old Lesson Plans posted below: top****5th Grade**

- **2009-2010**
- **2008-2009**

#### 6th Grade

- **2003-2004**
- **2002-2003**
- **2001-2002: Weeks 1-4, Weeks 5 - 18, & Weeks 19-41**
- **2000-2001**
- **Lesson of the Week Archive 2001-2007**

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