

8th grade Science

August 2015

					1	Notes: Quarter 1 (40 days) District Science Skills Test? TBD 8 th grade Behavior Assembly? TBD
	3	4	5	6	7	
			Student Registration	Student Registration	Student Registration	
	10	11	12	13	14	
	Teacher Work Day	Teacher Work Day	Professional Development	Professional Development	District Building Meeting Day	
<u>Week 1: NOS</u>	17	18	19 1st Day! Lesson 1.1- What is the Scientific Process?	20 Lesson 1.1-What is the Scientific Process?	21 Lesson 1.2- What are the variables in an experiment?	
<u>Week 2: NOS</u>	24 Lesson 1.2- What are the variables in an experiment?	25 Lesson 1.3-How do you write a hypothesis?	26 Lesson 1.3-How do you write a hypothesis?	27 Open House 6-730pm Lesson 1.4-What type of data do scientists collect?	28 Data Day No Students!	

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<u>Week 3: NOS</u>	31 Lesson 1.4- What type of data do scientists collect?	1 Lesson 1.5-How do you display data in a graph?	2 Lesson 1.5-How do you display data in a graph?	3 Lesson 1.6-How do you analyze data to form a conclusion about an experiment?	4 Lesson 1.6-How do you analyze data to form a conclusion about an experiment?	<p>Notes:</p> <p>Sept 10-11 are buffer days if needed- otherwise move to the next lesson!</p>
<u>Week 4: NOS</u>	7 Labor Day! No School	8 Lesson 1.7- Paper Airplane Performance Task	9 Lesson 1.7- Paper Airplane Performance Task	10	11	
<u>Week 5: Genetics</u>	14 Lesson 2.1- What is a trait?	15 Lesson 2.1- What is a trait?	16 Lesson 2.2-How are traits inherited?	17 Lesson 2.2-How are traits inherited?	18 Professional Development- No students	
<u>Week 6: Genetics</u>	21 Teacher Work Day	22 Lesson 2.3-How do dominant and recessive traits interact?	23 Lesson 2.3-How do dominant and recessive traits interact?	24 Lesson 2.4- How do you use a Punnett Square?	25 Lesson 2.4-How do you use a Punnett Square?	
<u>Week 7: Genetics</u>	28 Lesson 2.5- How can inheritance be modeled?	29 Lesson 2.5- How can inheritance be modeled?	30 Lesson 2.6-What are the different patterns of inheritance and how do they differ?			

<p><u>Week 7: Genetics</u></p>				<p>1 Lesson 2.6-What are the different patterns of inheritance and how do they differ?</p>	<p>2 Lesson 2.7-How are traits passed on through generations?</p>	<p>Notes: Quarter 2 (37 days)</p>
<p><u>Week 8: Genetics</u></p>	<p>5 Lesson 2.7-How are traits passed on through generations?</p>	<p>6 (Optional) Lesson 2.8-What are the benefits and risks of genetic engineering?</p>	<p>7 (Optional) Lesson 2.8-What are the benefits and risks of genetic engineering?</p>	<p>8 Lesson 2.9-Create an Alien Performance Task</p>	<p>9 Lesson 2.9-Create an Alien Performance Task</p>	<p>Lesson 2.8 is optional if running low on time.</p>
<p><u>Week 9: Forces & Motion</u></p>	<p>12 Lesson 3.1-What is a force?</p>	<p>13 Lesson 3.1-What is a force?</p>	<p>14 Lesson 3.2-How do forces cause objects to move?</p>	<p>15 3.2-How do forces cause objects to move?</p>	<p>16 End 1st Q! Lesson 3.3-What is the relationship between force and mass?</p>	
<p><u>Week 1: Forces & Motion</u></p>	<p>19 Teacher Work Day</p>	<p>20 Lesson 3.3-What is the relationship between force and mass?</p>	<p>21 Lesson 3.4-How do we know an object is in motion and how is it calculated?</p>	<p>22 Lesson 3.4-How do we know an object is in motion and how is it calculated?</p>	<p>23 Lesson 3.5-How do you graph speed?</p>	
<p><u>Week 2: Forces & Motion</u></p>	<p>26 Lesson 3.5-How do you graph speed?</p>	<p>27 Lesson 3.6-How do you graph acceleration?</p>	<p>28 Lesson 3.6-How do you graph acceleration?</p>	<p>29 Parent Teacher Conferences</p>	<p>30 Parent Teacher Conferences</p>	

<u>Week 3: Forces & Motion</u>	2 Lesson 3.7- What are Newton's 3 Laws of Motion?	3 Lesson 3.7- What are Newton's 3 Laws of Motion?	4 Lesson 3.8-What relationships exist among force, mass and acceleration?	5 Lesson 3.8-What relationships exist among force, mass and acceleration?	6 Lesson 3.9- Bottle Rocket Performance Task- Day 1	<u>Notes:</u>
<u>Week 4: Forces & Motion</u>	9 Lesson 3.9- Bottle Rocket Performance Task- Day 1	10 Lesson 3.10- Bottle Rocket Performance Task- Day 2	11 Lesson 3.10- Bottle Rocket Performance Task- Day 2	12 Lesson 3.11- Bottle Rocket Performance Task- Day 3	13 Lesson 3.11- Bottle Rocket Performance Task- Day 3	
<u>Week 5: Energy & Matter</u>	16 Lesson 4.1- What is energy and what are the different forms?	17 Lesson 4.1- What is energy and what are the different forms?	18 Lesson 4.2- What is the Law of Conservation of Energy?	19 Lesson 4.2-What is the Law of Conservation of Energy?	20 Lesson 4.3-How do kinetic and potential energy compare?	
	23 Thanksgiving Break	24 Thanksgiving Break	25 Thanksgiving Break	26 Thanksgiving Break	27 Thanksgiving Break	
<u>Week 6: Energy & Matter</u>	30 Lesson 4.3-How do kinetic and potential energy compare?					

<p><u>Week 6:</u> <u>Energy & Matter</u></p>		<p>1 Lesson 4.4- What are the chemical and physical properties of matter?</p>	<p>2 Lesson 4.4- What are the chemical and physical properties of matter?</p>	<p>3 Lesson 4.5-How do chemical and physical changes occur?</p>	<p>4 Lesson 4.5-How do chemical and physical changes occur?</p>	<p>Notes:</p> <p>Lesson 4.8 is optional if running low on time.</p> <p>Dec 17-18 is a buffer day if needed- otherwise move to the next lesson.</p>
<p><u>Week 7:</u> <u>Energy & Matter</u></p>	<p>7 Lesson 4.6- What is a chemical reaction?</p>	<p>8 Lesson 4.6- What is a chemical reaction?</p>	<p>9 Lesson 4.7- What is the Law of Conservation of Mass?</p>	<p>10 Lesson 4.7-What is the Law of Conservation of Mass?</p>	<p>11 (Optional) Lesson 4.8-How do you balance a chemical equation?</p>	
<p><u>Week 8:</u> <u>Energy & Matter</u></p>	<p>14 (Optional) Lesson 4.8-How do you balance a chemical equation?</p>	<p>15 Lesson 4.9- Design your own Bouncy Ball Performance Task</p>	<p>16 Lesson 4.9- Design your own Bouncy Ball Performance Task</p>	<p>17</p>	<p>18 End 2nd Q!</p>	
	<p>21 Winter Break</p>	<p>22 Winter Break</p>	<p>23 Winter Break</p>	<p>24 Winter Break</p>	<p>25 Winter Break</p>	
	<p>28 Winter Break</p>	<p>29 Winter Break</p>	<p>30 Winter Break</p>	<p>31 Winter Break</p>		

					1 Winter Break	Notes: Quarter 3 (46 days)
<u>Week 1: Waves</u>	4 Professional Development	5 Teacher Work Day	6 Lesson 5.1- What is a wave and what are the different forms?	7 Lesson 5.1-What is a wave and what are the different forms?	8 Lesson 5.2- What are the properties of waves?	
<u>Week 2: Waves</u>	11 Lesson 5.2- What are the properties of waves?	12 Lesson 5.3-How do waves move?	13 Lesson 5.3-How do waves move?	14 Lesson 5.4- What is the relationship between frequency and pitch in sound?	15 Lesson 5.4- What is the relationship between frequency and pitch in sound?	
<u>Week 3: Waves</u>	18 MLK Day! No School	19 Lesson 5.5- What is the electro-magnetic spectrum?	20 Lesson 5.5- What is the electro-magnetic spectrum?	21 Lesson 5.6- How do light waves move?	22 Lesson 5.6- How do light waves move?	
<u>Week 4: Waves</u>	25 Lesson 5.7- How do electro-magnetic and mechanical waves compare?	26 Lesson 5.7- How do electro-magnetic and mechanical waves compare?	27 Lesson 5.8- Waves Performance Task	28 Lesson 5.8- Waves Performance Task	29 Lesson 6.1- How does the Earth, moon and sun move in space?	

<p><u>Week 5: Earth Moon Sun</u></p>	<p>1 Lesson 6.1- How does the Earth, moon and sun move in space?</p>	<p>2 Lesson 6.2-Why do we have seasons on Earth?</p>	<p>3 Lesson 6.2-Why do we have seasons on Earth?</p>	<p>4 Lesson 6.3- Where did our moon come from?</p>	<p>5 Lesson 6.3- Where did our moon come from?</p>	<p><u>Notes:</u></p> <p>Challenger Mission (8 days)- preparation and fieldtrip</p>
<p><u>Week 6: Earth Moon Sun</u></p>	<p>8 Lesson 6.4- What causes the phases of the moon?</p>	<p>9 Lesson 6.4- What causes the phases of the moon?</p>	<p>10 Lesson 6.5- What causes eclipses on Earth?</p>	<p>11 Lesson 6.5-What causes eclipses on Earth?</p>	<p>12 Lesson 6.6- What causes tides on Earth?</p>	
<p><u>Week 7: Earth Moon Sun</u></p>	<p>15 President's Day! No School</p>	<p>16 Lesson 6.6- What causes tides on Earth?</p>	<p>17 (Optional) <i>Lesson 6.7- What would happen if we had no moon?</i></p>	<p>18 (Optional) <i>Lesson 6.7-What would happen if we had no moon?</i></p>	<p>19 (Optional) <i>Lesson 6.8-How does the motion of the Earth, moon and sun change over time?</i></p>	<p>Lessons 6.7 and 6.8 are optional if running low on time.</p> <p>Feb 25-26 are buffer days if needed- otherwise move to the next lesson!</p>
<p><u>Week 8: Earth Moon Sun</u></p>	<p>22 (Optional) <i>Lesson 6.8-How does the motion of the Earth, moon and sun change over time?</i></p>	<p>23 Lesson 6.9- Earth, Moon & Sun Literacy CER Task</p>	<p>24 Lesson 6.9- Earth, Moon & Sun Literacy CER Task</p>	<p>25</p>	<p>26</p>	
<p><u>Week 9: Weather, Climate & Human Impacts</u></p>	<p>29 Lesson 7.1- What is the Earth's atmosphere composed of?</p>					

<p><u>Week 9:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>		<p>1 Lesson 7.1- What is the Earth's atmosphere composed of?</p>	<p>2 Lesson 7.2-Why does weather vary from day to day?</p>	<p>3 Lesson 7.2-Why does weather vary from day to day?</p>	<p>4 Lesson 7.3-How is weather forecasted?</p>	<p>Notes: Quarter 4 (46 days)</p> <p>Lesson 7.4 is optional if running low on time.</p>
<p><u>Week 10:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>	<p>7 Lesson 7.3-How is weather forecasted?</p>	<p>8 (Optional) <i>Lesson 7.4-What are the strengths and limitations of different types of weather models?</i></p>	<p>9 (Optional) <i>Lesson 7.4-What are the strengths and limitations of different types of weather models?</i></p>	<p>10 Lesson 7.5-How do you prepare for severe weather?</p>	<p>11 End 3rd Q! Lesson 7.5-How do you prepare for severe weather?</p>	
<p><u>Week 1:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>	<p>14 Lesson 7.6- How does the climate in one area compare and contrast with another area?</p>	<p>15 Lesson 7.6- How does the climate in one area compare and contrast with another area?</p>	<p>16 Lesson 7.7- Why are there different climates on Earth?</p>	<p>17 Lesson 7.7- Why are there different climates on Earth?</p>	<p>18 Lesson 7.8- What is the difference between weather and climate?</p>	
	<p>21 Spring Break</p>	<p>22 Spring Break</p>	<p>23 Spring Break</p>	<p>24 Spring Break</p>	<p>25 Spring Break</p>	
<p><u>Week 2:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>	<p>28 Lesson 7.8- What is the difference between weather and climate?</p>	<p>29 Lesson 7.9-How has Earth's climate changed over time?</p>	<p>30 Lesson 7.9-How has Earth's climate changed over time?</p>	<p>31 Lesson 7.10- What evidence supports and/or contradicts human influence on climate change?</p>		

<p><u>Week 2:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>						<p>1 Lesson 7.10- What evidence supports and/or contradicts human influence on climate change?</p>	<p>Notes:</p> <p>Science CMAS Testing (6 days)</p> <p>PARCC Testing (5 days?)</p> <p>Solar system Unit may have to move down due to Science CMAS and/or PARCC.</p>
<p><u>Week 3:</u> <u>Weather,</u> <u>Climate &</u> <u>Human</u> <u>Impacts</u></p>	<p>4 Lesson 7.11- How can humans alter ecosystems (positive and negative)?</p>	<p>5 Lesson 7.11- How can humans alter ecosystems (positive and negative)?</p>	<p>6 Lesson 7.12- Choice Board Project</p>	<p>7 Lesson 7.12- Choice Board Project</p>	<p>8 Lesson 7.13- Choice Board Project</p>		
<p><u>Week 4: The</u> <u>Solar System</u></p>	<p>11 Lesson 7.13- Choice Board Project</p>	<p>12 Lesson 8.1- How is our solar system organized?</p>	<p>13 Lesson 8.1- How is our solar system organized?</p>	<p>14 Lesson 8.2-How do the inner and outer planets compare?</p>	<p>15 Lesson 8.2-How do the inner and outer planets compare?</p>		
<p><u>Week 5: The</u> <u>Solar System</u></p>	<p>18 Lesson 8.3- How did our solar system form?</p>	<p>19 Lesson 8.3- How did our solar system form?</p>	<p>20 Lesson 8.4-How do astronomers study space?</p>	<p>21 Lesson 8.4-How do astronomers study space?</p>	<p>22 Data Day No Students</p>		
<p><u>Week 6: The</u> <u>Solar System</u></p>	<p>25 Lesson 8.5- What are the other small bodies in the solar system?</p>	<p>26 Lesson 8.5- What are the other small bodies in the solar system?</p>	<p>27 Lesson 8.6-How big is our solar system?</p>	<p>28 Lesson 8.6-How big is our solar system?</p>	<p>29 Lesson 8.7- Why do objects such as satellite and moons and planets stay in orbit?</p>		

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<u>Week 7: The Solar System</u>	2 Lesson 8.7- Why do objects such as satellite and moons and planets stay in orbit?	3 Lesson 8.8-How is the life cycle of a star such as the sun similar to the cycle of life on Earth?	4 Lesson 8.8-How is the life cycle of a star such as the sun similar to the cycle of life on Earth?	5 Lesson 8.9- Solar System Assessment	6 Lesson 8.9- Solar System Assessment	<p>Notes:</p> <p>May 9-16 are flex days due to April Testing- may move Solar System unit down.</p> <p>Health Lesson 3 is optional if out of time.</p>
<u>Week 8: The Solar System</u>	9	10	11	12	13	
<u>Week 9: Health</u>	16	17 Heath Lesson 1	18 Heath Lesson 1	19 Health Lesson 2	20 Health Lesson 2	
<u>Week 10: Health</u>	23 (Optional) Health Lesson 3	24 (Optional) Health Lesson 3	25 8th grade Promotion	26 End 4th Q! 6th and 7th grade only	27 Teacher Work Day	
	30 Memorial Day! No School	31				