

# Lesson Planning

Grade 5 Science	Week One																					
Standard(s) TEKS/ STAAR	<p>(A) demonstrate safe practices and the use of safety equipment as described in the Texas Safety Standards during classroom and outdoor investigations; and</p> <p>(A) describe, plan, and implement simple experimental investigations testing one variable;</p> <p>(B) ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;</p> <p>(C) collect information by detailed observations and accurate measuring;</p> <p>(D) analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;</p> <p>(E) demonstrate that repeated investigations may increase the reliability of results;</p> <p>(F) communicate valid conclusions in both written and verbal forms; and</p> <p>(G) construct appropriate simple graphs, tables, maps, and charts using technology, including computers, to organize, examine, and evaluate information.</p> <p>(A) collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, pan balances, triple beam balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices, including clocks and stopwatches; and materials to support observations of habitats or organisms such as terrariums and aquariums; and</p> <p>(B) use safety equipment, including safety goggles and gloves.</p>																					
“I can” Statements	<p>(T) I can demonstrate safe practices during investigations.</p> <p>(W) I can use tools to collect and record information in an experiment.</p> <p>(Th) (F) I can use the scientific method to test a hypothesis through an experiment.</p>																					
Essential Questions	<p>Tuesday – Why are safety rules important in science?</p> <p>Wednesday – Which tools could be classified as safety tools? Why?</p> <p>Thursday – Explain the steps needed before testing an experiment begins?</p> <p>Friday – What question should your data and conclusion answer?</p>																					
<u>Word Wall Words</u>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Pan Balance</td> <td style="width: 33%;">Hypothesis</td> <td style="width: 33%;">Hand Lens</td> </tr> <tr> <td>Spring Scale</td> <td>Meter Stick</td> <td>Microscope</td> </tr> <tr> <td>Safety Goggles</td> <td>Triple Beam Balance</td> <td>Constant</td> </tr> <tr> <td>Variable</td> <td>Beaker</td> <td>Observation</td> </tr> <tr> <td>Metric Ruler</td> <td>Hot Plate</td> <td></td> </tr> <tr> <td>Celsius</td> <td>Thermometer</td> <td></td> </tr> <tr> <td>Scientific Method</td> <td>Graduated Cylinder</td> <td></td> </tr> </table>	Pan Balance	Hypothesis	Hand Lens	Spring Scale	Meter Stick	Microscope	Safety Goggles	Triple Beam Balance	Constant	Variable	Beaker	Observation	Metric Ruler	Hot Plate		Celsius	Thermometer		Scientific Method	Graduated Cylinder	
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Lesson Ideas and Materials	<p><b>Materials:</b>  <a href="#">Science Wall</a> Complete each day with your choice of word wall words.  <a href="#">Nature of Science Interactive Science Notebook</a>  <a href="#">Nature of Science Anchor Charts</a></p> <p><b>Lesson Ideas:</b>            (T) Science Safety Rules Gallery Walk. Science Safety Rule Anchor Chart. Lab Safety Notebook Activities.            (W) Science Tools Anchor Chart. Science Tools Notebook Activities, Science Tools Stations.            (Th) Scientific Method Anchor Chart, Scientific Method Notebook Activities.            (F) Complete an <a href="#">experiment</a> using the lab write up form from the Notebook Activities.</p>																					
Lesson Notes	<p><u>Monday</u> of the first week can consist of setting up the science notebook table of contents and introducing classroom routines and procedures. Create a scavenger hunt for the students to look for the items around the room that will help them learn. Examples: anchor chart areas, science wall, word wall, schedule, what to do in free time, etc.</p> <p><b>Science Safety Rules Gallery Walk-</b> Set up lab stations in which a rule needs to be followed. For example, a beaker tipped over with liquid spilling. Walk around and ask students what they should do.</p> <p><b>Science Tools Stations-</b> Set up a station with each tool for students to practice using them. For example, measure length with a metric ruler and temperature of the room with a thermometer.</p>																					



# Lesson Planning

Grade 5 Science	Week Three														
Standard(s) TEKS/ STAAR	(A) classify matter based on physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating), solubility in water, and the ability to conduct or insulate thermal energy or electric energy; Readiness Standard														
“I can” Statements	I can classify matter by its physical properties.														
Essential Questions	<p>Monday – Why can I not measure the mass of my water on a triple beam balance?</p> <p>Tuesday – What causes the light bulb to light up when a conductor is placed in the circuit?</p> <p>Wednesday – How does relative density compare to the definition of density?</p> <p>Thursday – Which physical properties are the easiest to test out in the real world? Why?</p> <p>Friday – What is the purpose of scientists classifying matter?</p>														
<u>Word Wall Words</u>	<table border="0"> <tr> <td>Matter</td> <td>Volume</td> </tr> <tr> <td>Solid</td> <td>Magnetism</td> </tr> <tr> <td>Liquid</td> <td>Insulator</td> </tr> <tr> <td>Gas</td> <td>Conductor</td> </tr> <tr> <td>State</td> <td>Electrical Circuit</td> </tr> <tr> <td>Mass</td> <td>Solubility</td> </tr> <tr> <td>Weight</td> <td>Density</td> </tr> </table>	Matter	Volume	Solid	Magnetism	Liquid	Insulator	Gas	Conductor	State	Electrical Circuit	Mass	Solubility	Weight	Density
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Lesson Ideas and Materials	<p><b>Materials:</b>  <a href="#">Science Wall</a> Complete each day with your choice of word wall words.  <a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a>  <a href="#">Classifying Matter Labs</a>  <a href="#">Matter and Energy Anchor Charts</a>  <a href="#">Physical Science Vocabulary</a></p> <p><b>Lesson Ideas:</b>  (M) Complete the Mass/ Volume and Magnetism labs from the States of Matter labs. Introduce the triple beam balance by showing students how to zero the balance, and how to measure mass. - <a href="#">Classifying Matter Labs</a>  (T) Complete the Conductor and Solubility labs from the States of Matter labs. Introduce the circuit by showing the class how to set up their circuit and how to test the substances in the circuit. - <a href="#">Classifying Matter Labs</a>  (W) Complete the Density and Physical States labs from the States of Matter labs. Introduce the triple beam balance by showing students how to zero the balance, and how to measure mass. - <a href="#">Classifying Matter Labs</a> For this density lab, we are measuring relative density because our unit of measure is whether an object sinks or floats in water.  (Th) Classifying Matter Scavenger Hunt. Compare the students’ scavenger hunt findings as a class and test any items under debate. - <a href="#">Classifying Matter Labs</a>  Have students complete the Physical Properties Notebook Activities. - <a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a>  (F) Using a book called “Physics” by Basher Books for the read aloud, read the Density page, and allow the students to make their own character for one of the word wall words for this week. Complete the Classifying Matter Anchor Chart- <a href="#">Matter and Energy Anchor Charts</a> as a class. The students can fill in their printable poster, and you can make one on chart paper to hang up around the room. Complete the vocabulary pages that were not completed through the week.</p>														
Lesson Notes	<p>Science Starters and Science Wall to start each day.</p> <p>During extra class time, complete the <a href="#">Physical Science Vocabulary</a> pages that accompany this week’s learning.</p> <p>Depending on your scavenger hunt length, you may want to do the notebook activity Friday.</p>														

# Lesson Planning

Grade 5 Science	Week Four	
Standard(s) TEKS/ STAAR	(B) identify the boiling and freezing/melting points of water on the Celsius scale; Supporting Standard	
"I can" Statements	I can identify the boiling point and freezing/ melting point of water.	
Essential Questions	<p>Monday – Could aluminum foil ever melt in the oven? Explain. *side note: ovens get about 500°F cooking and over 1000°F self cleaning</p> <p>Tuesday – What is the difference between the boiling point of water and the freezing/ melting point in Celsius?</p> <p>Wednesday – Is the boiling point and the freezing/ melting point the same for all substances? Why or why not?</p> <p>Thursday – How can you find the melting point of a substance?</p> <p>Friday – How can you find the boiling point of a substance?</p>	
<u>Word Wall Words</u>	Boil Melt Freeze Boiling Point	Melting/ Freezing Point Water Vapor Condensation Evaporation
Lesson Ideas and Materials	<p><b>Materials:</b>  <a href="#">Science Wall</a> Complete each day with your choice of word wall words.  <a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a>  <a href="#">Science and Literacy Boiling and Freezing/ Melting Point</a>  <a href="#">Matter and Energy Anchor Charts</a>  <a href="#">Physical Science Vocabulary</a></p> <p><b>Lesson Ideas:</b></p> <p>(M) Attention Grabber activities: Hot Potato, How Hot is Too Hot prediction sheet, A Ring in the Fire critical thinking. Introduce Word Wall Words for the Week and ask students what they think it means. Complete the first 2 columns of a Word Wall Builder Chart. –All this is in the <a href="#">Science and Literacy Boiling and Freezing/ Melting Point</a>.</p> <p>(T) Students will read an informational text about the Boiling and Freezing/ Melting Points and complete a graphic organizer to process the information. Complete the second column of the Word Wall Builder Chart. –All this is in the <a href="#">Science and Literacy Boiling and Freezing/ Melting Point</a></p> <p>(W) Students will complete a summary writing with key terms from Tuesday’s reading. – <a href="#">Science and Literacy Boiling and Freezing/ Melting Point</a>. Complete the Boiling and Melting/ Freezing chart and student lab creation for finding boiling and freezing, melting points in the notebook. -<a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a></p> <p>(Th) Timing Temperatures Lab day! -<a href="#">Science and Literacy Boiling and Freezing/ Melting Point</a> This would be a good day to test the experiment the students created Wednesday (if you have spare time). I make it class written and a teacher demonstration.</p> <p>(F) Have the students write a characterization of water that is boiling, and water that is freezing. What would the particles be like if they were living. Complete the Boiling and Freezing/ Melting Points Anchor Chart- <a href="#">Matter and Energy Anchor Charts</a> as a class. The students can fill in their printable poster, and you can make one on chart paper to hang up around the room. Complete the vocabulary pages that were not completed through the week.</p>	
Lesson Notes	Science Starters and Science Wall to start each day. During extra class time each day, complete the <a href="#">Physical Science Vocabulary</a> pages that accompany this week’s learning.	

# Lesson Planning

Grade 5 Science	Week Five
Standard(s) TEKS/ STAAR	(C) demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand; and Supporting Standard (D) identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water. Supporting Standard
“I can” Statements	I can demonstrate that some mixtures maintain the physical properties of their ingredients. I can identify changes that occur in the physical properties of the ingredients of solutions.
Essential Questions	Monday – What can you do if you do not like the raisins in your cereal? Tuesday – What is the difference between a mixture and a solution? Wednesday – How can you separate solutions? Thursday – How does the salt separated from water look compared to salt from a shaker? Friday – Why is lemonade powder in water considered a solution, and sand in water considered a mixture?
<a href="#">Word Wall Words</a>	Mixture Solution Solubility Dissolve
Lesson Ideas and Materials	<p><b>Materials:</b>  <a href="#">Science Wall</a> Complete each day with your choice of word wall words.  <a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a>  <a href="#">Science and Literacy Mixtures and Solutions</a>  <a href="#">Matter and Energy Anchor Charts</a>  <a href="#">Physical Science Vocabulary</a></p> <p><b>Lesson Ideas:</b>            (M) Attention Grabber activity: Mixtures and Solutions Snack. Introduce Word Wall Words for the Week and ask students what they think it means. Complete the first 2 columns of a Word Wall Builder Chart. –All this is in the <a href="#">Science and Literacy Mixtures and Solutions</a>            (T) Students will read an informational text about Mixtures and Solutions and complete a graphic organizer to process the information. Complete the second column of the Word Wall Builder Chart. –All this is in the <a href="#">Science and Literacy Mixtures and Solutions</a>            (W) Students will complete a summary writing with key terms from Tuesday’s reading. – <a href="#">Science and Literacy Mixtures and Solutions</a>. Complete the Mixtures and Solutions notes and writing prompt in the notebook. -<a href="#">Force, Motion, Matter, and Energy Interactive Science Notebook</a>            (Th) Separating Mixtures and Solutions Lab day! Complete the critical thinking activity after the lab. -<a href="#">Science and Literacy Mixtures and Solutions</a> Have students make a T-chart comparing the physical properties of fresh salt to the salt that is left from evaporating the water. Compare fresh sand to the sand separated from the water.            (F) Have the students write a paragraph explaining (proving) why this statement is incorrect: “The field of red, purple, yellow, and pink daisies was a beautiful mixture of flowers, a solution that cannot and should not be separated.” A labeled illustration would help explain it. Complete the Mixtures and Solutions Anchor Chart- <a href="#">Matter and Energy Anchor Charts</a> as a class. The students can fill in their printable poster, and you can make one on chart paper to hang up around the room. Complete the vocabulary pages that were not completed through the week.</p>
Lesson Notes	Science Starters ( <a href="#">Science and Literacy Mixtures and Solutions</a> ) and <a href="#">Science Wall</a> to start each day. During extra class time each day, complete the <a href="#">Physical Science Vocabulary</a> pages that accompany this week’s learning.