**GRADE 5 SCIENCE FIRST SIX WEEKS INSTRUCTIONAL CALENDAR**

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| **Student Expectation** | **1st Six Weeks Common Assessment** | **2nd Six Weeks Common Assessment** | **Assessment of Course Performance (ACP)** | **4TH Six Weeks Common Assessment** |
| **5.5A** | **X** | **X** |  |  |
| **5.5B** | **X** | **X** |  |  |
| **5.5C** | **X** | **X** |  |  |
| **3.6B** | **X** | **X** |  |  |
| **5.6A** |  | **X** |  |  |
| **5.6B** |  | **X** |  |  |
| **5.6C** |  | **X** |  |  |
| **5.6D** |  | **X** |  |  |
| **3.5C** |  | **X** |  |  |
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OVERVIEW ASSESSMENT FREQUENCY

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| **Week** | **Focus** | **Student Expectations** |
| **1** | **August 20 – 24, 2018** | **Science Safety** **Note-booking** | **5.1A, 5.1B,5.2F,****5.4A,B** |
| **2** | **August 27 – 31, 2018** | **Physical Properties of matter** | **3.5C,5.5A,5.5B,5.5C** |
| **3** | **September 3 – 7, 2018** | **Physical Properties of matter** | **3.5C,5.5A,5.5B,5.5C** |
| **4** | **September 10 – 14, 2018** | **Physical Properties of matter** | **3.5C,5.5A,5.5B,5.5C** |
| **5** | **September 17 – 21, 2018** | **Physical Properties of matter** | **3.5C,5.5A,5.5B,5.5C** |
| **6** | **September 24 – 28, 2018** | **Physical Properties of matter** | **3.5C,5.5A,5.5B,5.5C** |

Academic Vocabulary:

<http://lead4ward.com/docs/resources/academic_vocab/science/academic_vocab_science_gr_05.pdf>

Streamlined TEKS:

 **August 20 – 24, 2018**

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| **Week 1** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Suggested Labs: 50% of instructional time | * Using metric tools for measurement such as graduated cylinders, triple beam balances, thermometers and mass in exploring lab activities.
* Lab safety should be reviewed with each lab activity.
* Investigate properties with texture, size, color and mass
* Observing Matter activity– focus on flexibility, physical state, texture, color, and other familiar properties
* Observation stations of matter.

**Inquiry Flipchart: Fusion*** Playing with properties
 |
| Readiness Standards | 5.5(A) classify matter based on measurable, testable, and observable physical properties, ~~including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~ | 5.5(A) classify matter based on measurable, testable, and observable physical  properties including mass, magnetism, physical state (solid, liquid, and gas),  ~~relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy~~ | 5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  ~~relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~ | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), ~~relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~ | 5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, ~~magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~ |
| Supporting Standards |  |  |  |  |  |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |
| Demostration of Learning |  |  |  |  |  |
| Guiding Questions |  | What are some safety practices?  In what ways can we keep ourselves safe during classroom investigations?  What are some ways that we can conserve, reuse or recycle materials and natural resources?  How can we be responsible when using natural resources and materials?  In what ways can we share with others what we have learned from our investigations?  In what ways do drawings, discussions, or writing help communicate conclusions?  | Why do scientists use claims, evidence, and reasoning when communicating conclusions?  In what ways can we collect data?  How do we properly use safety equipment during investigations? |

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| Instructional Supports |  | **Lab safe practices****5E model****Interactive notebooks****Texas Science Lab safety information:**[file:///C:/Users/mcraig/AppData/Local/Packages/Microsoft.MicrosoftEdge\_8wekyb3d8bbwe/TempState/Downloads/TEA%20Texas%20Safety%20Standards%20-%20Resources.pdf](file:///C%3A/Users/mcraig/AppData/Local/Packages/Microsoft.MicrosoftEdge_8wekyb3d8bbwe/TempState/Downloads/TEA%20Texas%20Safety%20Standards%20-%20Resources.pdf) |
| * **Textbook:** Science **Fusion** Lesson 1: What is Science? Lesson 2 How do Scientists learn about the natural world? Lesson 3 Types of investigations Lesson 4-5 investigations and Tools
* **Strategy Focus:** Lab safety rules 5E model
* **Anchor Charts:** Lab tools, safety, properties of matter
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| STAAR Stems |

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| **1** | A teacher wears protective gloves to lift a metal pan filled with boiling water from a hot plate. Why are the protective gloves necessary?  |
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| **A** | The metal pan creates thermal energy. |
| **B** | The metal pan insulates thermal energy. |
| **C** | The metal pan conducts thermal energy. |
| **D** | The metal pan reduces thermal energy. |

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| **1** | Students drop the same heavy ball onto identical blocks of soft clay from different heights. For each height they measure the depth of the dent the ball makes in the clay. https://staarbank.schoolobjects.com/eduphoria_webcontrols/tests/TestImage.aspx?bnk=staarbank&aid=0a5b7d07-2d14-4963-949f-ac2be70da59d&mode=editWhy is the depth of the dent different in each trial?   |
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| **A** | The size of the ball changes. |
| **B** | The material of the ball changes. |
| **C** | The mass of the ball when it hits the clay changes. |
| **D** | The force of the ball when it hits the clay changes. |
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|  | A student was asked to compare the masses of four blocks that were all the same size but made of different materials. The student used a balance to compare the masses of two blocks at a time. The student repeated this process three more times with different pairs of blocks and recorded observations.https://staarbank.schoolobjects.com/eduphoria_webcontrols/tests/TestImage.aspx?bnk=staarbank&aid=959d8d7a-532a-4b86-9c62-cc29a8959af9&mode=editWhich list shows the blocks in order from least to greatest mass?  |
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| **A** | Blocks N, M, L, P |
| **B** | Blocks P, M, L, N |
| **C** | Blocks N, L, M, P |
| **D** | Blocks P, L, M, N |

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 **August 27 – 31, 2018**

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| **Week 2** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday**  |
| Suggested Labs: 50% of instructional time | * Investigate properties with texture, size, color and mass
* Observing Matter activity– focus on flexibility, physical state, texture, color, and other familiar properties
* Comparing density of objects using water as a reference.
* Relative Density Observation Stations
 |
| Readiness Standards | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), ~~solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~ | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), ~~solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~3.5C | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), ~~solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~3.5C | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), ~~solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~3.5C | 5.5(A) classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), ~~solubility in water, and the ability to conduct or insulate thermal energy or electric energy~~3.5C |
| Supporting Standards | 3.5(C) predict, observe and record changes in the state of matter caused by heating or cooling  such as ice becoming liquid water or condensation forming on the outside of a glass of ice  water or liquid water being heated to the point of becoming water vapor  | **3.5(C) predict, observe and record changes in the state of matter caused by heating or cooling  such as ice becoming liquid water or condensation forming on the outside of a glass of ice  water or liquid water being heated to the point of becoming water vapor** |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |

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| Demostration of Learning |  |  |  |  |  |
| Guiding Questions | * What is mass?
* What is the difference between mass and volume?
* What tools do we use to measure mass?
* In what ways do physical properties determine how matter is classified?
* In what ways do physical properties determine how matter is changed?
* In what ways do physical properties determine how matter is used?
 |
| Instructional Supports | * Lab activities
* Interactive notebooks
* 1st Six Weeks CA Exemplars
* **Textbook:** Fusion Unit 3 Matter: Lesson 1
* **Strategy:** **5E model**
 |
|  **Anchor charts**: Mass , tools  Properties of matter Make a T-Chart of items less dense than water and more dense than water |  |

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| STAAR Stems | 1. For an investigation a teacher dropped a bolt into a container of maple syrup and asked students to remove it without touching the syrup. The students first tried to use a strong magnet to remove the bolt, but it remained on the bottom of the container. They finally poured the syrup into another container to get the bolt out.

Maple syrupBoltWhich of these best describes some of the bolt’s physical properties?1. The bolt is magnetic and has the same density as the maple syrup.
2. The bolt is nonmagnetic and more dense than the maple syrup.
3. The bolt is nonmagnetic and less dense than the maple syrup.

**J** The bolt is magnetic and less dense than the maple syrup.

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| A teacher gives a student four clear sealed containers. Each container holds a different substance. The student records some observations about the substance in each container. https://staarbank.schoolobjects.com/eduphoria_webcontrols/tests/TestImage.aspx?bnk=staarbank&aid=35a8a59c-cede-4a1c-9cc6-ceb837161a95&mode=editBased on these observations, which container most likely holds only gas?  |
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| **A** | Container 1 |
| **B** | Container 2 |
| **C** | Container 3 |
| **D** | Container 4 |

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 **September 3 – 7, 2018**

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| **Week 3** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Suggested Labs: 50% of instructional time | ***STUDENT/TEACHER******HOLIDAY*** | Suggested Lab Activities: * Observing the properties in solutions
* Testing the properties of dissolving in liquids
* Identifying changes that occur in solutions such as dissolving salt and sugar in water

**Inquiry Flipchart: Fusion**An Inky Mixture- ADoes it Dissolve?-B |
| Readiness Standards |  | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** |
| Supporting Standards |  | 5.5(B) demonstrate that some mixtures maintain physical properties of their ingredients such as  iron filings and sand or sand and water | 5.5(B) demonstrate that some mixtures maintain physical properties of their ingredients such as  iron filings and sand or sand and water |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |
| Demostration of Learning |  |  |  |  |  |
| Guiding Questions |  | * What properties determine a mixture?
* What properties can be used to separate mixtures?
* Why is a solution a special kind of mixture?
* In what ways can physical properties of substances be changed?
 | * What tools can be used to separate mixtures?
* What tools can be used to separate solutions?
 |
| Instructional Supports |  |  |
| * Lab activities
* Interactive notebooks
* 1st Six Weeks CA Exemplars
* **Textbook:** **Fusion** Unit 3 Lesson 2 Mixtures and Solutions

**Strategy:** **5E model** |  |

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| STAAR Stems |  | 5 A student adds 10 grams of four different powdered solids into four different beakers. The student then adds 100 mL of water to each beaker, stirs the mixtures, and allows them to sit for half an hour before recording observations. Which question is the student most likely trying to answer with this investigation? A At what water temperature do the substances dissolve? B How much water is needed to cause a substance to change state? C What causes a substance to sink when put in water? D Which substances dissolve in water?

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|  | A teacher mixes a white powder into a beaker of water. The powder cannot be seen in the water. The teacher then heats the mixture until the water evaporates and the powder can be seen again. Which property of the powder is the teacher demonstrating?  |
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| **A** | Solubility |
| **B** | Density |
| **C** | Conductivity |
| **D** | Mass |

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**September 10 – 14, 2018**

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| **Week 4** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Suggested Labs: 50% of instructional time | * Solubility Observation Stations
* Separating mixtures and solutions
* Separating iron filings and sand and other mixtures
* Exploring the properties of mixtures and solutions
* What are conductors and insulators?
* Explore magnetic and non- magnetic

**Inquiry Flipchart: Fusion**How do substances change when forming a solution? Guided Inquiry |
| Readiness Standards | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** |
| Supporting Standards | 5.5(B)  demonstrate that some mixtures maintain physical properties of their ingredients such as  iron filings and sand or sand and water | 5.5(C)  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 |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |
| Demostration of Learning |  |  |  |  |  |
| Guiding Questions | * In what ways can physical properties of substances be changed?
* In what ways do physical properties determine how matter is classified?
* In what ways do physical properties determine how matter is used?
* In what ways can changes to physical properties occur?
* In what ways do physical properties determine how matter is changed?
* Why do physical properties of matter change in some mixtures, but not others?
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| Instructional Supports | * Lab activities
* Interactive notebooks
* 1st Six Weeks CA Exemplars
* **Textbook:** Fusion : A matter of temperature Unit 3

**Strategy:** **5E model****Anchor charts:** magnetic and non -magnetic |
| STAAR Stems |   |

 **September 17 – 21, 2018**

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| **Week 5** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Suggested Labs: 50% of instructional time | * What are conductors and insulators?
* Explore magnetic and non- magnetic
* What is electricity?
* What is thermal energy?
* Which materials make the best insulators?
* Which materials make the best conductors?
 |
|  | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** |
| Supporting Standards | 5.5(B)  demonstrate that some mixtures maintain physical properties of their ingredients such as  iron filings and sand or sand and water | 5.5(C)  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 |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |
| Demostratoin of Learning |  |  |  |  |  |
| Guiding Questions | * In what ways can physical properties of substances be changed?
* In what ways do physical properties determine how matter is classified?
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* Why do physical properties of matter change in some mixtures, but not others?
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| Instructional Supports | * Lab activities
* Interactive notebooks
* 1st Six Weeks CA Exemplars
* **Textbook:** **Fusion** Unit 3 Lesson 2 What are Mixtures and Solutions? Useful properties page 118-119

**Strategy:** **5E model****Anchor charts:** magnetic and non -magnetic |

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| STAAR Stems |   |

**September 24 – 28, 2018**

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| **Week 6** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Suggested Labs: 50% of instructional time |  | * What are conductors and insulators?
* Explore magnetic and non- magnetic
* What is electricity?
* What is thermal energy?
* Which materials make the best insulators?
* Which materials make the best conductors?
 |
| Readiness Standards | *First Six Weeks Common Assessment* | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** | **5.5(A) classify matter based on measurable, testable, and observable physical  properties, including mass, magnetism, physical state (solid, liquid, and gas),  relative density (sinking and floating using water as a reference point), solubility  in water, and the ability to conduct or insulate thermal energy or electric energy** |
| Supporting Standards |  | 5.5(B)  demonstrate that some mixtures maintain physical properties of their ingredients such as  iron filings and sand or sand and water | 5.5(C)  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 |
| Process Standards | 5.1(A)  demonstrate safe practices and the use of safety equipment as outlined in Texas Education  Agency‐approved safety standards during classroom and outdoor investigations using  safety equipment, including safety goggles or chemical splash goggles, as appropriate, and  gloves, as appropriate  5.1(B)  make informed choices in the conservation, disposal, and recycling of materials  5.2(A)  describe, plan, and implement simple experimental investigations testing one variable  5.2(B)  ask well defined questions, formulate testable hypotheses, and select and use appropriate  equipment and technology  5.2(E)  demonstrate that repeated investigations may increase the reliability of results  5.4(A)  collect, record, and analyze information using tools, including calculators, microscopes,  cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors,  balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets,  collecting nets, and notebooks; timing devices; and materials to support observations of  habitats or organisms such as terrariums and aquariums | 5.2(C)  collect and record information using detailed observations and accurate measuring  5.2(D)  analyze and interpret information to construct reasonable explanations from direct  (observable) evidence and indirect (inferred) evidence  5.2(F)  communicate valid conclusions in both written and verbal forms  5.2(G)  construct appropriate simple graphs, tables, maps, and charts using technology, including  computers, to organize, examine, and evaluate information  5.3(A)  analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning,  and experimental and observational testing  5.3(B)  draw or develop a model that represents how something that cannot be seen such as the  Sun, Earth, and Moon system and formation of sedimentary rock works or looks  5.3(C)  connect grade‐level appropriate science concepts with the history of science, science  careers, and contributions of scientists  |
| Learning Objective |  |  |  |  |  |
| Demostration of Learning |  |  |  |  |  |
| Guiding Questions |  | * In what ways can physical properties of substances be changed?
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| Instructional Supports |  | * Lab activities
* Interactive notebooks
* 1st Six Weeks CA Exemplars
* **Textbook:** Fusion Unit 3

**Strategy:** **5E model****Anchor charts:** magnetic and non -magnetic |
| **Anchor Chart: Thermal conductor and insulators** |

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| STAAR Stems |  | 1. Which of these is the best conductor of electricity?

**F** Glass rod**G** Cotton string**H** Plastic tubing**J** Copper penny |