

STARBASE Louisiana Correlation to Louisiana Frameworks and Comprehensive Curricula – Grade 5

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
S.T.E.M. Career Investigations <ul style="list-style-type: none"> • Scavenger Hunt • STEM Time Capsule • Business Lunches • Career Videos 	Science –SI-M-B1; SI-M-B6; SI-M-B7	Science as Inquiry: 27,28,29,34,38,39,40	Not Applicable	Not Applicable
	Math – N-7-M; A-4-M; M-2-M; M-3-M; D-1-M; P-2-M	Measurement: 17, 20 Data Analysis and Probability: 28	Not Applicable	Not Applicable
	Technology Standard: 5, 6	Indicator: H, I	Not Applicable	Not Applicable
Coordinate Grid Geometry	Math – G-2-M; G-7-M; G-6-M	Geometry: 24, 25, 27	Properties in Geometry: 1. Can students classify and describe the properties of circles, triangles, and polygons? 2. Can students recognize motions in a plane and use the appropriate language to discuss the use motions? 5. Can students identify and plot points on a coordinate grid?	Properties in Geometry: Activity 1, 5, 6, 7, 9, 12, 13, 16, 17, 18
Metric Mission: <ul style="list-style-type: none"> • Introduction • Mass • Length • Volume • Capacity 	Science –SI-M-A3; SI-M-B3; PS-M-A1	Science as Inquiry: 6, 7, 8, 11, 19 Physical Science: 1, 2	Properties: 1. Can students describe the differences between large and small quantities of similar masses using metric and standard measurements?	Properties: Activity 4, 6
	Math – M-1-M; M-2-M; M-3-M; M-4-M; M-5-M; M-6-M; D-1-M;	Measurement: 15, 19, 20, 22, 23,21	Whole Number Review: 4. Can students organize, display, and interpret data? Measurement: 1. Can students recognize, select appropriate tools and units, and make and interpret measure for contexts involving length, weight/mass, capacity, temperature, and time? 2. Can students convert between units of length, weight/mass, capacity, and time measurements within the same system for US and metric measurements? 3. Can students compare measurements between US and metric systems?	Whole Number Review: Activity 23 Measurement: Activity 1, 2,3, 5,10, 11, 12
PTC ProEngineer	Science –SI-M-B3; SI-M-B7; ESS-M-C8	Science as Inquiry: 29, 39,40 Earth in the Solar System: 47	Space: 7. Can students describe what tools and advances in technology have facilitated space exploration and the study of the universe for the presence of life?	Space: Activity 4, 10, 11
	Math – G-2-M; G-3-M;G-4-M	Measurement: 15 Geometry: 24, 25, 26	Geometry: 1. Can students classify and describe the properties of circles, triangles, and polygons? 3. Can students recognize and discuss line and rotational symmetry in figures?	Geometry: Activity 1, 4, 6, 9, 10, 14
	Technology Standard: 1,5, 6	Indicators: G, H, J	Not Applicable	Not Applicable

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
Ocean of Air – Properties of Air	Science – SI-M-A1; SI-M-A2; SI-M-A3; SI-M-A4; SI-M-A5; SI-M-A6; SI-M-A7; SI-M-B3; SI-M-B4; PS-M-A1;MS-M-A2; PS-M-A3;MS-M-A4; MS-M-A5	Science as Inquiry: 1, 2, 4, 6, 7, 8, 11, 12, 14, 16, 18, 22, 29, 31,33,35, 36 Physical Science: 1, 3,4, 5, 35	Properties: 5. Can students describe the similarities of and differences of a solid element, a liquid element, and a gas element? 6. Can students describe the physical and chemical properties of various substances? Reactions: 1. Can students describe the differences in the properties of water in three different states of matter?	Properties: Activity 2, 3, 4, 5, 7 Reactions: Activity 1, 2 Earth and the Atmosphere: Activity 9, 10
	Math – N-1-M; N-3-M; N-5-M; N-7-M; N-8-M; M-1-M; M-3-M; D-1-M	Number and Number Relations: 5, 11 Measurement: 15, 20 Data Analysis, Probability: 28	Whole Number Review: 3. Can students work proficiently with whole numbers, their operations, and their representations? 4. Can students organize, display, and interpret data? Measurement Around Us: 1. Can students recognize, select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time? Number Theory and Equivalent Fractions: 4. Can students compare fractions? 5. Can students describe mixed numbers and improper fractions and convert between those forms?	Whole Number: Activity 23 Measurement Around Us: Activity 11, 12 Number Theory and Equivalent Fractions: Activity 6, 10, 14
What’s the Matter? Molecular Models	Science – SI-M-A7; SI-M-A5; SI-M-B4; PS-M-A2; PS-M-3; PS-M-A4; PS-M-A5	Science as Inquiry: 1,2,3,4,14,15 Physical Science: 2,3,4	Properties: 5. Can students use a periodic table and describe the structure of an atom, its relative mass, and the electrical charge? 7. Can students identify models of elements by their atom structure?	Properties Activity 7,8,9
Chromatography: STARBASE CSI	Science – SI-E-A3; SI-E-A4; SI-E-A5; SI-E-A6; SI-E-B1; SI-E-B2; SI-E-B4; SI-E-B5; SI-E-B6; SI-M-A1; SI-M-A2; SI-M-A4; SI-M-A5; SI-M-B3; SI-M-B4 PS-M-A1;	Science as Inquiry: 1,2,3,4,5,7,11,18,19,22 Physical Science: 2	Properties: 3. Can students describe the physical and chemical properties of various objects?	Properties: Activity 2,5
	Math – D-1-M; D-2-M; D-3-M	Data Analysis, Probability: 28	Data Analysis, Probability, and Counting Principle: 2. Can students organize, display, and interpret data? 5. Can students identify the outcomes of an experiment?	Data Analysis, Probability, and Counting Principle: Activity 1

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
<p>Newton's Laws of Motion:</p> <ul style="list-style-type: none"> Crash Test Dummies Newton Launcher Newton Pop-ups Straw Rockets Center of Pressure/Center of Gravity Rocket Launch Data Analysis/Spreadsheet Graphing 	<p>Science – SI-M-A1; SI-M-A2; SI-M-A3; SI-M-A5; SI-M-A7; SI-M-A8; SI-M-B4; SI-M-B7; PS-M-B1; PS-M-B2; PS-M-B3; PS-M-B4; PS-M-B5; ESS-M-C3; ESS-M-C8</p>	<p>Science as Inquiry: 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 15, 16, 18, 19, 23, 27, 29, 31, 34, 36, 37 Motion and Forces: 7, 8, 9 Earth and the Solar System: 47</p>	<p>Forces, Motion, and Energy: 1. Can students describe how to demonstrate a change in speed or direction of an object's motion by using an unbalanced force? 2. Can students identify the forces affecting a falling object? 3. Can students explain how energy is transferred? Space: 7. Can students describe what tools and advances in technology have facilitated space exploration and the study of the universe for the presence of life?</p>	<p>Properties: Activity 4, 5, 6 Forces, Motion, and Energy: Activity 1, 2, 3, 4, 5, 6, 7 Space: Activity 10, 11</p>
	<p>Math – A-1-M; A-2-M; A-4-M; M-1-M; M-3-M; D-1-M; P-2-M; N-5-M; N-6-M; P-3-M; N-2-M; D-2-M; D-6-M</p>	<p>Number and Number Relations: 2, 8, 11 Algebra: 12, 13 Measurement: 15, 20 Data Analysis and Discrete Math: 28, 29, 30</p>	<p>Whole Number Review: 1. Can students determine the steps and operations to use to solve a problem without assistance? 3. Can students work proficiently with whole numbers, their operations, and their representations? 4. Can students organize, display, and interpret data? 5. Can students solve simple equations and inequalities involving whole numbers? Measurement Around Us: 1. Can students recognize, select appropriate tools and units, and make and interpret measure for contexts involving length, weight/mass, capacity, temperature, and time? 4. Can students estimate measurements?</p>	<p>Whole Number Review: Activity 11, 12.13 24 Measurement all Around Us: Activity 3, 6, 7, 10, 11, 12, 13, 14, 15, 18</p>
	<p>Health Standards- 1, 2, 3, 6</p>	<p>Health: 1-M-2; 1-M-4; 2-M- 4; 3-M-1; 3-M-3; 5-M-4; 5-M-5; 6-M-1</p>	<p>Not applicable.</p>	<p>Health: 3: 1, 2 2:1; 5:1</p>
	<p>Technology Standards- 2, 3, 4, 6</p>	<p>Indicators: A, B, D, G, J</p>	<p>Not applicable.</p>	<p>Not Applicable.</p>
<p>Miniscale Matters: Exploring Nanotechnology</p>	<p>Science – SI-M-A1; SI-M-A2; SI-M-A7; SI-M-B1; SI-M-B2; SI-M-B3; SI-M-B4; SI-M-B6; SI-M-B7; PS-M-A1; PS-M-A2; PS-M-A3</p>	<p>Science as Inquiry: 1,2,3,4,7,12,22,16,27, 29,38,39 Physical Science: 4</p>	<p>Properties: 3. Can students describe the physical and chemical properties of various objects?</p>	<p>Properties: 2, 5</p>

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
<p align="center">Warm Ups and Cool Downs</p>	<p>Science – SI-M-A1; SI-M-A2; SI-M-A3; SI-M-A4; SI-M-A7; SI-M-A8; SI-M-B3; SI-M-B7; PS-M-A1;PS-M-A3; PS-M-A5;PS-M-A6; PS-M-A7;PS-M-A8; PS-M-A9; PS-M-C7</p>	<p>Science as Inquiry: 1,2,4,5,6,7,8,9,11,122 2, 23,29, 31, 32, 36 Physical Science 4, 6</p>	<p>Properties: 6. Can students describe the physical and chemical properties of various substances? 7. Can students describe some ways to group substances by properties and behaviors? Reactions 2. Can students describe the properties of a substance that has undergone a chemical reaction?</p>	<p>Properties: Activity 1, 2, 7 Reactions Activity 4, 5</p>
	<p>Math – N-2-M; A-4-M; M-1-M; M-3-M; M-6-M; D-1-M; D-2-M; D-6-M</p>	<p>Number and Number Relations: 8 Measurement: 15, 20 Data Analysis, Probability: 28, 29, 30</p>	<p>Whole Number Review: 4. Can students organize, display, and interpret data? Measurement Around Us: 1. Can students recognize, select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time?</p>	<p>Whole Number Review: Activity 2, 18, 19, 20, 21, 22, 23 Measurement: Activity 6, 7, 10</p>
<p align="center">What’s the Solution? Mystery Fluids – Finding the Percentage of a Solute</p>	<p>Science – SI-M-A1; SI-M-A3; SA-M-A5; SI-M-B3; PS-M-A1</p>	<p>Science as Inquiry: 1, 4, 6, 7, 8, 11, 12, 13, 16 Physical Science:1</p>	<p>Properties: 4. Can students describe some ways to group objects by properties and behaviors?</p>	<p>Properties: Activity 2, 5</p>
	<p>Math – N-1-M; N-2-M; N-3-M; N-8-M; A-3-M; A-4-M; D-1-M; D-3-M; D-6-M</p>	<p>Number and Number Relations: 2, 8, 11 Data Analysis and Probability: 28, 29,30</p>	<p>Number Theory and Equivalent Fractions: 3. Can students identify or develop equivalent fractions related to a given fraction? 4. Can students convert between decimals and fractions or mixed numbers? Data, Probability, and the Counting Principle: 2. Can students organize, display, and interpret data? 3. Can students identify and/or create equivalent ratios?</p>	<p>Number Theory and Equivalent Fractions: 7,8,9,12 Data, Probability, and the Counting Principle: 2, 5</p>
<p align="center">Bernoulli’s Principle Experiments: Fluid Mechanics and Aerodynamics</p>	<p>Science: SI-M-A5; SI-M-A7; SI-M-B6; PS-M-A5’ PS-M-B2; PS-M-B4; PS-M-B5</p>	<p>Science as Inquiry: 4, 7, 14 Physical Science: 4, 5, 8, 9</p>	<p>Force, Motion, and Energy: 1. Can students describe how to demonstrate a change in speed or direction of an object’s motion by using an unbalanced force? 2. Can students identify the forces affecting a falling object?</p>	<p>Force, Motion, and Energy: Activity 2,3,4,6 Earth & Atmosphere: Activity 9</p>

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
<p>Robotics:</p> <ul style="list-style-type: none"> • Introduction • Surveillance Challenge • Navigation Challenge 	<p>Science – SI-M-A1; SI-M-A3; SI-M-A5; SI-M-B3; SI-M-B4; SI-M-B7</p>	<p>Science as Inquiry: 2, 4, 6, 7, 9, 25, 29</p>	<p>Properties: 2. Can students identify various objects by their measurement?</p>	<p>Properties: Activity 3, 4</p>
	<p>Math – N-4-M; N-5-M; N-7-M; D-1-M; D-2-M; D-3-M; D-5-M; D-6-M; M-1-M; M-3-M; M-6-M</p>	<p>Number and Number Relations: 7, 8 Measurements: 15, 16, 18, 20, 23</p>	<p>Whole Number Review: 1. Can students determine the steps and operations to use to solve a problem without assistance? 3. Can students work proficiently with whole numbers, the operations of addition and subtraction and their representations? 4. Can students solve simple equations and inequalities involving whole numbers? 7. Can students work proficiently with whole numbers, the operations of multiplication and division, and their representatives? Measurement: 1. Can students recognize and select appropriate tools and units and make and interpret measures for contexts involving weight/mass, capacity, temperature, and time? 2. Can students convert between units of length, weight/mass, capacity, and time measurements within the same system for U.S. and Metric System measurements?</p>	<p>Whole Number Review: Activity 7, 9, 10, 11, 12, 13 Measurement: 6, 7</p>
	<p>Social Studies: G-1A-M1; G-1A-M2; G-1A-H2</p>	<p>The World in Spatial Terms: 1, 3, 4</p>	<p>Unit 1: 3. Can students interpret a map using a map key or legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude?</p>	<p>Unit 1: Activity 6, 7</p>
	<p>Technology Standards: 4, 5</p>	<p>Indicators: D, E, F, G, I, J</p>	<p>Not applicable.</p>	<p>Not applicable.</p>
<p>Engineering Design Process</p> <ul style="list-style-type: none"> • Introduction – EDP Wheel • Eggbert’s Crash Landing 	<p>Science – SI-M-B6; SI-M-B7; SI-M-A1; SI-M-A2; SI-M-A8; SI-M-B1; SI-M-B2; SI-M-B3; SI-M-B4; SI-M-B5; SI-M-B6; SI-M-B7; LS-M-A6; ESS-M-C8; PS-M-B2-; PS-M-B3; PS-M-B4; PS-M-B5</p>	<p>Science as Inquiry: 1,2,4,6, 22, 23, 27, 31, 33,34,36, 37, 38,39, 40 Physical Science: 8, 9</p>	<p>Forces, Motion and Energy Transformation: 1. Can students describe how to demonstrate a change in speed or direction of an object’s motion by using an unbalanced force? 2. Can students identify forces affecting falling objects? Space: 8. Can students describe what tools and advances in technology have facilitated space exploration and the study of the universe for the presence of life?</p>	<p>Forces, Motion and Energy Transformation: Activity 3, 5, 6 Space: Activity 4, 10, 11</p>
	<p>ELA – ELA-4-M6; ELA-7-M2</p>	<p>Standard Four: 41</p>	<p>Unit 1: 4. Can students make inferences or draw intended conclusions?</p>	<p>Unit 1: Activity 14</p>

STARBASE Lesson	LA State Framework Benchmarks- Grades 5-8	LA State Grade Level Expectations – Grades 5-8	LA State Comprehensive Curriculum Guiding Questions	Related Activities
Search and Rescue on the Big Island of Hawaii: Using NGA Imagery Maps	Math – M-1-M; M-3-M; D-1-M	Measurement: 9, 10, 15, 22, 23	Measurement: 1. Can students recognize, select appropriate tools and units, and make and interpret measures for contexts involving length, weight/mass, capacity, temperature, and time? 2. Can students convert between units of length, weight/mass, capacity, and time measurements within the same system for U.S. and Metric System measurements? 4. Can students estimate measurements?	Measurement: Activity 1, 3, 4, 5
	Social Studies: G-1A-M1; G-1A-M2; G-1B-M4; G-1C-M1	The World in Spatial Terms: 1, 3, 4, 8	Unit 1: 3. Can students interpret a map using a map key or legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude?	Unit 1: Activity 6, 7
G.P.S. Navigation	Science – SI-M-B3; SI-M-B7; ESS-M-C8	Science as Inquiry: 29, 39 Earth and Space Science: 47	Space: 8. Can students describe what tools and advances in technology have facilitated space exploration and the study of the universe?	Space: Activity 10, 11
	Social Studies – G-1A-M2	The World in Spatial Terms: 3	Unit 1: 3. Can students interpret a map using a map key or legend and symbols, distance scale, compass rose, cardinal or intermediate directions, and latitude and longitude?	Unit 1: Activity 6, 7
	Technology Standards: 5, 4	Indicators: F, G, H, I	Not applicable.	Not applicable.
Mission Log Responses/Group Discussion/Pair Sharing and other STARBASE Instructional Activities	English and Language Arts- ELA-1-M1; ELA-1-M3; ELA-2-M6; ELA-3-M2; ELA-4-M2; ELA-4-M5; ELA-7-M1; ELA-7-M2; ELA-7-M4	Unit 1: 1:04; 1:08; 1:12b; 1:24b; 1:40b Unit 2: 2:02; 2:08, 2:08b; 2:12b; 2:14; 2:17c; 2:17e; 2:27; 2:34	Unit 1: 7. Can students use the writing process efficiently? 8. Can students give oral presentations effectively? Unit 2: 2. Can students effectively integrate technology, accessing information on the internet and using other informational resources in research?	Not Applicable