PHYSICAL SCIENCE CURRICULUM

Day(s)	Big Ideas	Essential Questions	Concepts	Competencies	Lessons	Vocabulary	Standards/Eligible content	Common Core Standards
1	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Rules, goals and expectations.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
2	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Chapter 1 Directed Reading Assignment.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
3	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Check Directed Reading Assignment Notes on observation vs inference Do workbook page 1.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
4	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Check workbook page 1. Do workbook page 3 as a class. Vocabulary on page 2	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis	3.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative	

					of workbook.	Data Theory Law Model Exercise	explanations and models.	
5	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Hands on activities: Problem solving strategies. Notes on Scientific Method Workbook pages 4-5.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
6	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Workbook pages 6-7. Vocabulary Quiz. Workbook page 11.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	.3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
7	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Scientific Method video and worksheet page 12. Chapter 1 review pages 13-14.	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
8	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical	The basic concepts of problem solving strategies are important to gain scientific data in the	Solve problems by using strategies like the scientific method, working backwards, guess	Review for Chapter 1 Test.	Physical Science Scientific method Technology Pure Science Observation	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and	

		Science classroom?	Physical Science investigations.	and check, etc.		Inference Hypothesis Data Theory Law Model Exercise	models using logic and evidence. -Recognize and analyze alternative explanations and models.	
9	Basic concepts of Physical Science.	Why are scientific concepts important to the Physical Science classroom?	The basic concepts of problem solving strategies are important to gain scientific data in the Physical Science investigations.	Solve problems by using strategies like the scientific method, working backwards, guess and check, etc.	Chapter 1 Test. Breakdown American Ruler(1 inch) into 16 equal parts.(Fractions)	Physical Science Scientific method Technology Pure Science Observation Inference Hypothesis Data Theory Law Model Exercise	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models.	
10	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Review 1 inch breakdown of American ruler. Practice measuring page 17. Break metric ruler(1 cm) to the number of uncertainty. (Decimals) Practice measurement page 18.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
11	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Finish measurement practice on page 18. Notes on accuracy and precision. Practice using number of uncertainty on page 15.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
12	Basic	Why are	The basic concepts of	To measure	Practice measurement	Accuracy	3.12.A1.8.A9	

	concepts of Physical Science.	scientific measurements important to the Physical Science classroom?	accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	accurately using both American and metric measurement and having the ability to convert from one unit to another.	using pages 16 and 19. Begin conversions using common conversion factors.	Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	-Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
13	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Review measurement and conversions using pages 20-21.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
14	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Quiz on measurement and conversions. Build a metric to metric conversion table.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
15	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Use page 22 for conversion practice. Page 24 to relate metric prefixes with common phrases. Practice metric to metric conversions on handout.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	

						Volume		
16	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Do workbook 25-28 and check. Start Demo's on Volume.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
17	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Finish Volume demo's. Calculate volume using workbook 23.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
18	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Define and show difference's in density. Do demo's to understand and relate to density. Talk about mass to volume relationship.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
19	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Quiz on metric to metric conversions, volume and density. Start rules on Significant figures.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and	

						Significant Digits Standard Volume	precision in making valid measurements.	
20	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Start notes on significant figures. Go over 5 rules of significant figures. Practice finding significant figures using workbook 29 and 30.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
21	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Take notes on adding, subtracting, multiplying and dividing with significant figures. Practice doing functions with significant figures using workbook 31 and supplement packet.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
22	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Introduce scientific notation. Practice using scientific notation using packet pages 1-3.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
23	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to	Go over packet 1-3. More practice using significant figures and scientific notation.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative	

				another.		Meter SI Significant Digits Standard Volume	explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
24	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Significant figure and scientific notation quiz.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
25	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Discovery video clip: Measure to measure temperature conversions.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
26	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Begin converting Kelvin to Celsius to Fahrenheit. Practice temperature conversions using workbook 32-33.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
27	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical	The basic concepts of accurate and precise measurement are important to gain scientific data in the	To measure accurately using both American and metric measurement and having the	Finish temperature conversions. Start graphing skills by identifying axis	Accuracy Density Kelvin Kilogram Liter	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and	

		Science classroom?	Physical Science investigations.	ability to convert from one unit to another.	quadrants, etc.	Mass Meniscus Meter SI Significant Digits Standard Volume	models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
28	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Do graphing lab to practice graphing skills. Begin reviewing for chapter 2 test.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
29	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Review for chapter 2 test.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
30	Basic concepts of Physical Science.	Why are scientific measurements important to the Physical Science classroom?	The basic concepts of accurate and precise measurement are important to gain scientific data in the Physical Science investigations.	To measure accurately using both American and metric measurement and having the ability to convert from one unit to another.	Chapter 2 test. Begin chapter 5 reading assignment.	Accuracy Density Kelvin Kilogram Liter Mass Meniscus Meter SI Significant Digits Standard Volume	3.12.A1.8.A9 -Know that both direct and indirect observations are used by scientists to study the natural world and universe. -Formulate and revise explanations and models using logic and evidence. -Recognize and analyze alternative explanations and models. -Explain the importance of accuracy and precision in making valid measurements.	
31	Forces can act upon an object to	How are the forces acting on an object related	The motion of an object can be described by its	Solve problems of motion and forces by applying knowledge	Finish chapter 5 reading assignment using workbook pages	Acceleration Average Speed Balanced Forces	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement).	

	change the position, direction, and or speed of its motion.	to its motion?	position, direction and speed.	of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	36-38.	Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
32	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check chapter 5 reading assignment. Read chapter 5.1 and take notes on speed.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
33	Forces can act upon an object to change the position,	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct	Finish reading chapter 5.1 and taking notes on 5.1. Explain mini project	Acceleration Average Speed Balanced Forces Force Friction	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that	

	direction, and or speed of its motion.			and indirect measurement of the motion of objects and forces acting upon objects.	"Slow Flyer" Build Slow Flyer	Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
34	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Test slow flyers. Keep a table of all flights and find speed of flyers using V=d/t. (Workbook 45)	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
35	Forces can act upon an object to change the position, direction, and or speed of	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the	Do vocabulary terms associated with chapter. Do workbook 42-43.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion	

	its motion.			motion of objects and forces acting upon objects.		Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
36	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Do graphing speed activity in workbook pages 46-47. Practice calculating speed and velocity problems on workbook 48.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
37	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting	Extra credit/ make up day.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration,	

				upon objects.		Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
38	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Do more practice problems on speed and velocity. Explain walking speed activity.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
39	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Walking speed activity.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns	

						Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
40	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Motion video. Have students write 10 facts from video.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
41	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Begin second nine weeks. Velocity practice.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions	

						Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
42	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Finish velocity practice and put on board. Take notes on acceleration. Do workbook 49 for homework.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
43	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check workbook 49. Start acceleration problems workbook 48. Begin final preparation on velocity and acceleration problems.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its	

						Position Rate Speed Velocity Weight Motion Newton	velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
44	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Complete velocity and acceleration hand out and go over. Review for velocity and acceleration quiz. View video clip on acceleration.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
45	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Velocity and acceleration quiz.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration	

						Speed Velocity Weight Motion Newton	provide necessary and sufficient evidence for the existence of forces.	
46	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	What is a force? Read pages 115-118 in textbook. Discuss net, balanced and unbalanced forces. Take notes on forces. Do workbook 50-51.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
47	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check workbook 50-51. Friction? Read 119-124 in textbook. Discuss types of friction. Take notes on friction.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	

						Weight Motion Newton		
48	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Video "Friction" Have students write a summary of video.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
49	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Gravity? Read 125-129 in textbook. Take notes on Law of Universal Gravitation, weight and mass. Do workbook pages 53-54.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	

						Newton		
50	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check workbook 53-54. Take notes on inertia and do demonstrations on inertia. Do chapter 5 review and text review pages 132-133; 1-10, 11, 13, 18, 19 and 20.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
51	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check chapter 5 review. Review for chapter 5 test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement).	

						of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
52	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Chapter 5 Test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
53	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Start chapter 6 reading assignment. Use workbook pages 55-60 and textbook pages 136-153.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw	

						Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
54	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Finish chapter 6 reading assignment.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
55	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Take notes on chapter 6.1. Do workbook page 61.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced	

						Law of Motion Position Rate Speed Velocity Weight Motion Newton	forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
56	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check workbook 61. Calculate speed of falling objects. Do workbook 66.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
57	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Finish workbook 66. Do workbook 67-68. (Calculating speed of falling objects)	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of	

						Rate Speed Velocity Weight Motion Newton	displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
58	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Take notes on chapter 6.2. Do workbook page 69.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
59	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Do force problems using workbook page 63. Do workbook page 64.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient	

						Velocity Weight Motion Newton	evidence for the existence of forces.	
60	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Quiz on force and falling objects problems.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
61	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Do workbook 62, 65,70-72 as review for chapter 6 test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	

						Motion Newton		
62	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Check workbook 62, 65, 70-72. Begin reviewing for chapter 6 test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
63	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Review for chapter 6 test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	

64	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Chapter 6 Test.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
65	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
66	Forces can act upon an	How are the forces acting on	The motion of an object can be	Solve problems of motion and forces by	Car project?	Acceleration Average Speed	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration,	

	object to change the position, direction, and or speed of its motion.	an object related to its motion?	described by its position, direction and speed.	applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Build a paper car to show speed, velocity and momentum.	Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
67	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
68	Forces can act upon an object to change the	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and	Solve problems of motion and forces by applying knowledge of Newton's laws,	Car project? Build a paper car to show speed, velocity	Acceleration Average Speed Balanced Forces Force	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple	

	position, direction, and or speed of its motion.		speed.	performing direct and indirect measurement of the motion of objects and forces acting upon objects.	and momentum.	Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
69	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
70	Forces can act upon an object to change the position, direction, and	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and	

	or speed of its motion.			measurement of the motion of objects and forces acting upon objects.		Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
71	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
72	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects	Car project? Build a paper car to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an	

				and forces acting upon objects.		Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
73	Forces can act upon an object to change the position, direction, and or speed of its motion.	How are the forces acting on an object related to its motion?	The motion of an object can be described by its position, direction and speed.	Solve problems of motion and forces by applying knowledge of Newton's laws, performing direct and indirect measurement of the motion of objects and forces acting upon objects.	Race paper cars to show speed, velocity and momentum.	Acceleration Average Speed Balanced Forces Force Friction Gravity Inertia Mass Net Force Newton's First Law of Motion Newton's Second Law of Motion Newton's Third Law of Motion Position Rate Speed Velocity Weight Motion Newton	S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.C.3.1.2: Design or evaluate simple technological or natural systems that incorporate the principles of force and motion S11.C.3.1.3: Describe the motion of an object using variables (i.e., acceleration, velocity, displacement). S11.A.3.3.3: Analyze physical patterns of motion to make predictions or draw conclusions 3.2.7.B1:Describe how unbalanced forces acting on an object change its velocity. Analyze how observations of displacement, velocity, and acceleration provide necessary and sufficient evidence for the existence of forces.	
74	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form	Do vocabulary terms on Chapter 7 use workbook pages 1-2. Start notes on Forces of fluids.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's	

				conclusions based on experimental evidence.		Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	germ theory, relativity, heliocentric theory, ideal gas laws).		
75	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Finish notes on Forces of fluids. Read article on Archimede's principle and summarize. Do Fluids and pressure workbook page 3.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).		3.2.7.A3: E S11.A.1.1.2 tectonics, c relativity, he
76	Changes in matter are accompanied	Why are changes in matter	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to	Check workbook page 3. Do second fluids and	Archimede's Principle Bernoulli's	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter.		

	by changes in energy.	accompanied by changes in energy?		observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	pressure worksheet workbook page 4. Demonstrations on Pascal's Principle, Archimedes's and Bernoulli's principles.	Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
77	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Finish demonstration on Principles. Read text pages 63-66. Notes on Behavior of gases.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	

						Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity		
78	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Finish notes on Behavior of gases. Do workbook pages 10-11.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
79	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature,	Take notes on states of matter. Do workbook pages 8-9.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell	

				volume, and mass, and form conclusions based on experimental evidence.		Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
80	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Extra Credit Make up day.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	

						Sublimation Thermal Expansion Viscosity		
81	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Collect extra credit. Check workbook pages 8-9. Dry ice demos.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
82	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Take notes on behavior of gases. Demonstrations on Boyle's and Charles' Law.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	

						Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity		
83	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Review for Chapter Test. Do review sheet. Do text review pages 180-181; 1-5, 7-11,18 and 19.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
84	Changes in	Why are	Matter exists naturally	Conduct simple and	Review for Chapters	Archimede's	3.2.7.A3: Explain how energy transfer	

	matter are accompanied by changes in energy.	changes in matter accompanied by changes in energy?	in 3 states on earth: solid, liquid, and gas.	safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	3, 7 and 10 Test.	Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity	can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	
85	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Matter exists naturally in 3 states on earth: solid, liquid, and gas.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Chapter 3, 7 and 10 Test. Chapter 9 Vocabulary.	Archimede's Principle Bernoulli's Principle Boiling Point Boyle's Law Buoyant Force Charles' Law Condensation Crystal Evaporation Freezing Point Gas Heat of Fusion Heat of Vaporization Kinetic Theory of Matter	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.A.1.1.2: Analyze and explain the accuracy of scientific facts, principles, theories, and laws. Newton's universal law of gravitation, tectonics, conservation of mass and energy, cell theory, theory of evolution, atomic theory, theory of relativity, Pasteur's germ theory, relativity, heliocentric theory, ideal gas laws).	

						Liquid Melting Point Pascal Pascal's Principle Plasma Pressure Solid Sublimation Thermal Expansion Viscosity		
86	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Notes on Potential Energy. Practice calculating potential energy with workbook page 22.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
87	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Notes on Kinetic Energy. Practice calculating kinetic energy using workbook24. Do workbook 23.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
88	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Check workbook 23. Notes on work. Do calculations on workbook page 25.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	

						Temperature Thermal Energy Work Joule		
89	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Quiz on Potential Energy, Kinetic Energy and Work.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
90	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Potential and Kinetic Energy video. Final wrap up for Potential and Kinetic Energy.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
91	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Notes on Thermal Energy and Specific heat. Do workbook page 27.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
92	Energy can be transferred	How is energy transferred between objects	Electricity is the result of converting one form of energy into	Demonstrate understanding of the transfer of energy of	Start Thermal Energy problems on workbook page 30.	Calorimeter Heat Kinetic Energy	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter.	

	between objects and/or can be converted into different forms.	and converted into different forms?	another and the flow of electrons via a conductor.	waves using lenses, mirrors, and simple musical instruments (string or wind).	Do workbook pages 27-28.	Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
93	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Final practice on Thermal Energy workbook pages 31-32.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
94	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Electricity is the result of converting one form of energy into another and the flow of electrons via a conductor.	Demonstrate understanding of the transfer of energy of waves using lenses, mirrors, and simple musical instruments (string or wind).	Thermal Energy and Specific Heat Quiz.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical Energy Potential Energy Specific Heat Temperature Thermal Energy Work Joule	3.2.7.A3: Explain how energy transfer can affect the chemical and physical properties of matter. S11.C.2.1.3: Apply the knowledge of conservation of energy to explain common systems	
95	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Changes in temperature are accompanied by changes in kinetic energy which can result in changes in the states of matter.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form	Notes on Substances and mixtures. Do workbook page 13. Notes on Homogeneous and Heterogeneous mixtures. Do workbook page 14.	Element Homogeneous mixture Heterogeneous mixture Physical property Chemical change Colloid Compound Fog	3.2.C.A1 Differentiate between physical properties and chemical properties. Differentiate between pure substances and mixtures. Differentiate between heterogeneous and homogeneous mixtures.	

				conclusions based on experimental evidence.		Solution Tyndall effect Chemical property Coagulation Law of conservation of mass Physical change Suspension Brownian motion		
96	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Changes in temperature are accompanied by changes in kinetic energy which can result in changes in the states of matter.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Notes on physical properties and changes. Notes on chemical properties and changes. Do workbook page 15.	Element Homogeneous mixture Heterogeneous mixture Physical property Chemical change Colloid Compound Fog Solution Tyndall effect Chemical property Coagulation Law of conservation of mass Physical change Suspension Brownian motion	3.2.C.A1 Differentiate between physical properties and chemical properties. Differentiate between pure substances and mixtures. Differentiate between heterogeneous and homogeneous mixtures.	
97	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Changes in temperature are accompanied by changes in kinetic energy which can result in changes in the states of matter.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Do workbook page 16. Do animated scavenger hunt for matter using workbook page 19. Start review using workbook pages 17-18.	Element Homogeneous mixture Heterogeneous mixture Physical property Chemical change Colloid Compound Fog Solution Tyndall effect Chemical property Coagulation Law of conservation of	3.2.C.A1 Differentiate between physical properties and chemical properties. Differentiate between pure substances and mixtures. Differentiate between heterogeneous and homogeneous mixtures.	

						mass Physical change Suspension Brownian motion		
98	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Changes in temperature are accompanied by changes in kinetic energy which can result in changes in the states of matter.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Check workbook page 17-18. Review for Matter test.	Element Homogeneous mixture Heterogeneous mixture Physical property Chemical change Colloid Compound Fog Solution Tyndall effect Chemical property Coagulation Law of conservation of mass Physical change Suspension Brownian motion	3.2.C.A1 Differentiate between physical properties and chemical properties. Differentiate between pure substances and mixtures. Differentiate between heterogeneous and homogeneous mixtures.	
99	Changes in matter are accompanied by changes in energy.	Why are changes in matter accompanied by changes in energy?	Changes in temperature are accompanied by changes in kinetic energy which can result in changes in the states of matter.	Conduct simple and safe, inquiry-based investigations to observe endothermic and exothermic chemical reactions, measure temperature, volume, and mass, and form conclusions based on experimental evidence.	Matter Test.	Element Homogeneous mixture Heterogeneous mixture Physical property Chemical change Colloid Compound Fog Solution Tyndall effect Chemical property Coagulation Law of conservation of mass Physical change Suspension Brownian motion	3.2.C.A1 Differentiate between physical properties and chemical properties. Differentiate between pure substances and mixtures. Differentiate between heterogeneous and homogeneous mixtures.	
100	Periodic trends in the	What patterns in the properties of	Some physical properties that	Predict physical and chemical properties	Introduce the Periodic Table of Elements.	Proton Electron	S7.C.1.1.2:Recognize that the atom is the basic building block of matter.	

	properties of atoms allow for the prediction of physical and chemical properties.	the elements contribute to the layout of the periodic table?	characterize matter include: density, melting point, boiling point, volume, and conductivity.	and interactions of matter using the trends of periodic table.	Highlight 60 of the most common elements for students to identify name and symbol.	Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.3:Explain the differences between elements, compounds and mixtures.	
101	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Notes on atoms, neutrons, protons, electrons, etc. Do workbook pages 34-35.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3:Explain the differences between elements, compounds and mixtures.	
102	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Check workbook Pgs 34-35. Chapter 11-12 Vocabulary.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

						Chemical activity Energy level Nucleus Quark Periodic Table		
103	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Read Text 290-292. Do workbook Pg 37 together. Do workbook Pgs 36 and 45 for homework.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
104	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Check workbook Pgs 36 and 45. Element names and symbols quiz.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

						Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table		
105	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Element Video: Periodic Table of Elements, Use workbook pg 39 to break Periodic Table into protons, neutrons, electron shells, etc.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
106	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Use workbook pg 38 to break periodic table down. Draw the models for the first 18 elements and their electron configurations within the energy levels.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

						Quark Periodic Table		
107	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Element Uses Quiz. Finish drawing elements and their energy levels. Use workbook 40 as a final practice on separating the periodic table into single items.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
108	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Begin notes on metals, nonmetals, and metalloids. Do workbook pgs 42 and 44.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
109	Periodic trends in the properties of atoms allow for the prediction of physical and	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Check workbook 42 and 44. Begin Lewis Dot structures, Valence electrons, Covalent bonding.	Proton Electron Neutron Atomic number Atomic weight Group Period	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

	chemical properties.					Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table		
110	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Review for test on the Periodic Table. Finish breaking periodic table into individual groups using textbook pgs 306-315.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
111	Periodic trends in the properties of atoms allow for the prediction of physical and chemical properties.	What patterns in the properties of the elements contribute to the layout of the periodic table?	Some physical properties that characterize matter include: density, melting point, boiling point, volume, and conductivity.	Predict physical and chemical properties and interactions of matter using the trends of periodic table.	Periodic Table Test.	Proton Electron Neutron Atomic number Atomic weight Group Period Isotope Mass number Metals Nonmetals Metalloids Chemical activity Energy level Nucleus Quark Periodic Table	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

112	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Do chapter 14 vocabulary using workbook pages 66 and 67. Take notes on Gram formula mass.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
113	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Use workbook page 70 to calculate Gram formula mass. Start notes on types of chemical reactions.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
114	Chemical bonding occurs as a result of attractive	What factors determine the types of chemical bonds that form	Solutions, suspensions, and colloids are three types of mixtures which contain two or	Use models to demonstrate understanding of the attractive forces between atoms.	Do workbook pages 68-69 as practice for types of reactions. Use workbook page	Catalyst Chemical equation Coefficients Decomposition reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

	forces between particles.	between particles?	more pure substances that can be separated by physical means.		70 as another practice for types of chemical reactions.(Synthesis, Decompostion, Single and Double Displacement)	Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction		
115	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Vocabulary and Gram Formula Mass/Types of Chemical Reactions Quiz.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
116	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Begin balancing equations. Use workbook page 71 as a guided inquiry. Do workbook page 73 for homework.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

						Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction		
117	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Check workbook 73. Use workbook page 72 as practice for balancing chemical equations. Do workbook 74 for homework.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
118	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Check workbook 74. Use workbook page 77 problems 4a-j to balance more equations. Take notes on energy and chemical reactions. Do workbook page 76.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

						Single displacement Synthesis reaction		
119	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Use workbook page77 problems 5a-j as a final practice for balancing chemical equations. Do workbook page 75.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
120	Chemical bonding occurs as a result of attractive forces between particles.	What factors determine the types of chemical bonds that form between particles?	Solutions, suspensions, and colloids are three types of mixtures which contain two or more pure substances that can be separated by physical means.	Use models to demonstrate understanding of the attractive forces between atoms.	Balancing Chemical Equations Quiz.	Catalyst Chemical equation Coefficients Decomposition reaction Double displacement reaction Endothermic Exothermic Formula mass Inhibitor Molecular mass Precipitate Preservative Product Reactant Single displacement Synthesis reaction	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
121	Chemical reaction are predictable.	What factors determine the pH of a	Acids and bases can be determined by the hydroxide or	Use chemical formulas to decipher if the compound is	Take notes on pH and the pH scale.	Acid Base pH		

	Acids and bases are determined by their pH.	substance?	hydronium ions within a chemical formula. The strength of the acid or base will fall on the pH scale.	an acid or base. Demonstrate by testing substances with a pH meter.	Do page 79 and 80 to practice using the pH scale.	pH Scale Hydroxide ion Hydronium ion Salts Weak Acid Strong Acid Weak Base Weak Base		
122	Chemical reaction are predictable. Acids and bases are determined by their pH.	What factors determine the pH of a substance?	Acids and bases can be determined by the hydroxide or hydronium ions within a chemical formula. The strength of the acid or base will fall on the pH scale.	Use chemical formulas to decipher if the compound is an acid or base. Demonstrate by testing substances with a pH meter.	Take notes on What is a base? Do demonstration using a pH meter on alkali substances. Do page 82 as a review of bases.	Acid Base pH pH Scale Hydroxide ion Hydronium ion Salts Weak Acid Strong Acid Weak Base Weak Base	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
123	Chemical reaction are predictable. Acids and bases are determined by their pH.	What factors determine the pH of a substance?	Acids and bases can be determined by the hydroxide or hydronium ions within a chemical formula. The strength of the acid or base will fall on the pH scale.	Use chemical formulas to decipher if the compound is an acid or base. Demonstrate by testing substances with a pH meter.	Take notes on What is an acid? Do demonstration using a pH meter on acidic substances. Do page 85 as a review of acids.	Acid Base pH pH Scale Hydroxide ion Hydronium ion Salts Weak Acid Strong Acid Weak Base Weak Base	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
124	Chemical reaction are predictable. Acids and bases are determined by their pH.	What factors determine the pH of a substance?	Acids and bases can be determined by the hydroxide or hydronium ions within a chemical formula. The strength of the acid or base will fall on the pH scale.	Use chemical formulas to decipher if the compound is an acid or base. Demonstrate by testing substances with a pH meter.	Do pages 81, 83 and 84 in workbook as a review of acids, bases and the pH scales.	Acid Base pH pH Scale Hydroxide ion Hydronium ion Salts Weak Acid Strong Acid Weak Base Weak Base	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
125	Chemical reaction are predictable. Acids and bases are	What factors determine the pH of a substance?	Acids and bases can be determined by the hydroxide or hydronium ions within a chemical formula.	Use chemical formulas to decipher if the compound is an acid or base. Demonstrate by	Acid, base and pH Test.	Acid Base pH pH Scale Hydroxide ion	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	

	determined by their pH.		The strength of the acid or base will fall on the pH scale.	testing substances with a pH meter.		Hydronium ion Salts Weak Acid Strong Acid Weak Base Weak Base		
126	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	nergy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Do chapter 9 vocabulary using workbook 22. Do workbook page 23.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
127	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	nergy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Take notes on Potential Energy. Practice potential energy calculations on workbook page 24. Begin notes on Kinetic Energy.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
128	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	nergy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Complete notes on kinetic energy. Practice calculating kinetic energy problems on workbook page 26. Take notes on work problems.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
129	Energy can	How is energy	nergy can take many	Describe sources	Practice calculating	Calorimeter	S7.C.1.1.2:Recognize that the atom is	

	be transferred between objects and/or can be converted into different forms.	transferred between objects and converted into different forms?	different forms including mechanical, thermal, chemical, and electromagnetic.	and forms of energy and explain their transformations.	kinetic energy, potential energy and work problems using workbook page 27. View Bill Nye Energy video.	Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule	the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
130	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	nergy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Potential energy, kinetic energy and work problem quiz.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule	S7.C.1.1.2:Recognize that the atom is the basic building block of matter. S7.C.1.1.3: Explain the differences between elements, compounds and mixtures.	
131	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Energy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Take notes on measuring thermal energy. Do workbook page 29. Do workbook page 30 for homework.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy Specific heat Temperature Thermal energy Work Joule		
132	Energy can be transferred between objects and/or can be converted into different	How is energy transferred between objects and converted into different forms?	Energy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Check workbook page 30. Practice calculating changes in thermal energy using workbook page 32.	Calorimeter Heat Kinetic Energy Law of conservation of energy Mechanical energy Potential Energy		

	forms.					Specific heat Temperature Thermal energy Work Joule		
133	Energy can be transferred between objects and/or can be converted into different forms.	How is energy transferred between objects and converted into different forms?	Energy can take many different forms including mechanical, thermal, chemical, and electromagnetic.	Describe sources and forms of energy and explain their transformations.	Practice calculating			