Medford Lakes School District
Science Curriculum Guide - Grade 5
Written by: Amy Wiker
Text/Program: *ScienceFusion*

Unit 1: "How Scientists Work"
(13 instructional days)

"Big Idea": Scientists answer questions by careful observations and investigations

Essential Questions of Unit 1:

- What is science?
- How do scientists learn about the natural world?
- What are some types of investigations?
- How do you perform a controlled experiment?
- What are some science tools?
- How can scientists learn from observations?

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Unit 1-Lesson #1: "What is science?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe the relationship between evidence and opinion in scientific explanations. • Demonstrate the ability to observe, infer, investigate, compare, communicate, classify, order, draw conclusions, and use time/space relationships. • Identify elements of well-designed investigations and valid conclusions. • Explain how communication and collaboration among scientists can lead to constructive debate and changes in scientific thinking.	5.N.1.1.1 5.N.1.1.2 5.N.1.1.3 5.N.1.1.4	Engage/Explore	15-25 minutes	• Directed Inquiry – Flip Chart Pg. 2 (Communicate Clearly) • Independent Inquiry – Flip Chart Pg. 2 (Classify Objects) • Power Notes presentation • Digital lesson • SE-3
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-4-13
		Extend/Evaluate	10 minutes	• Sum it Up SE-14 • Brain Check SE-16-17 • Unit1-Lesson 1 Quiz AG-1

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• science • evidence • investigation • opinion

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Unit 1-Lesson #1: "What is science?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-1L-1M* *Read Actively* - TE-4 *Oral Language Development* - TE-6 *Understand "Affect"* - TE-6 *Grammar – Question Marks* - TE-12	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-5, 9, 10* *Make Connections – Easy – TE-16A "Use a Timeline" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-5, 9, 10* *Make Connections – Challenging – TE-16A "Communicate with Multimedia" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content • Student Edition with Audio • Leveled Readers		

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Unit 1-Lesson #2: "How do scientists learn about the natural world?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Describe how scientific knowledge differs from information gathered in other ways. • Explain the relationship between evidence and explanations in science	5.N.1.2.1 5.N.1.2.2	Engage/Explore	45 minutes	• Guided Inquiry: Flipchart Pg. 3 along with Lesson Inquiry – SE-19-22
		Explain	40 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 1-Lesson 2 Quiz AG-2

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 1-Lesson #2: "How do scientists learn about the natural world?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-1L-1M*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-22A)* "Analyze a Line Graph" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-22A)* "Collect Evidence" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content • Student Edition with Audio • Leveled Readers		

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Unit 1-Lesson # 3: "What are some types of investigations?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain that there are many methods to investigate phenomena, and compare various forms of investigations. • Design controlled experiments an explain the importance of a control • Demonstrate the ability to predict; hypothesize; identify; and control variables; experiment; formulate and use models; and collect, record, and interpret data.	5.N.1.3.1 5.N.1.3.2 5.N.1.3.3	Engage/Explore	15-45 minutes	• Directed Inquiry – Flipchart Pg. 4 (Think Like a Scientist) • Independent Inquiry – Flipchart Pg. 4 (Compare Models) • Power Notes presentation • Digital lesson • SE-23
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-24-35
		Extend/Evaluate	10 minutes	• Sum it Up SE-36 • Brain Check SE-37-38 • Unit 1-Lesson 3 Quiz AG33

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• scientific methods • experiment • variable • control

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Unit 1-Lesson # 3: "What are some types of investigations?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-1L-1M* *Using Cognates* - TE-24 *Understand "Rely on: and :Reliance"* - TE-26 *Using Context Clues* - TE-31 *Understand "Are Suitable For"* - TE-34	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-25, 29, 30, 32* *Make Connections – Easy – TE-38A "Construct a Map" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-25, 29, 30, 32* *Make Connections – Challenging – TE-38A "Use Technology" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 1-Lesson # 4: "How do you perform a controlled experiment?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is an "Guided Inquiry" Lesson SWBAT: • Record data from repeated trails • Manipulate two types of variables	5.N.1.4.1 5.N.1.4.2	Engage/Explore	35 minutes	• Guided Inquiry: Flipchart Pg. 5 along with Lesson Inquiry – SE-39-40
		Explain	15 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 1-Lesson 4 Quiz AG-4

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• No new vocabulary introduced

Differentiating Instruction		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-1L-1M*	*Differentiated Inquiry-Easy (TE-40A)* "Refine an Experiment" activity	*Differentiated Inquiry-Challenging (TE-40A)* "Design an Experiment" Activity

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Unit 1-Lesson # 4: "How do you perform a controlled experiment?"	
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content • Student Edition with Audio • Leveled Readers	

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Unit 1-Lesson #5: "What are some science tools?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Demonstrate proper and safe use of science tools • Explain the importance of accuracy in measurements • Demonstrate the ability to use numbers and measurements	5.N.1.5.1 5.N.1.5.2 5.N.1.5.3	Engage/Explore	15-25 minutes	• Directed Inquiry – Flipchart Pg. 6 (Making Measurements) • Independent Inquiry – Flipchart Pg. 6 (Get Detailed) • Power Notes presentation • Digital lesson • SE-41
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-44-51
		Extend/Evaluate	10 minutes	• Sum it Up SE-52 • Brain Check SE-53-54 • Unit 1-Lesson 5 Quiz AG-5

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• microscopic • balance • spring scale • accurate
Differentiating Instruction			

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Unit 1-Lesson #5: "What are some science tools?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-1L-1M* *Word Endings* - TE-43 *Understanding Prefixes* - TE-46 *Understand Multi-Meaning Word "Graduated"* - TE-50	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-43, 47, 48* *Make Connections – Easy – TE-54A "Compare Measurement Tools" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-43, 47, 48* *Make Connections – Challenging – TE-54A "Write an Invitation" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content • Student Edition with Audio • Leveled Readers		

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Unit 1-Lesson #6: "How can scientists learn from observations?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe the natural world. • Record observations. • Explain why some investigations can only be conducted by observation.	5.N.1.6.1 5.N.1.6.2 5.N.1.6.3	Engage/Explore	20 minutes	• Guided Inquiry: Flipchart Pg. 5 along with Lesson Inquiry – SE-39-40
		Explain	20 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 1-Lesson 6 Quiz AG-6 • Unit 1 Review – SE-57-60 • Unit 1 Test and Performance Assessment – AG 7-13 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-59

Key Words:	• inquiry skills • scientific methods • scientific tools	**Academic Vocabulary:**	• Agronomy (science of soil management and crop production)

Differentiating Instruction		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-1L-1M*	*Differentiated Inquiry-Easy (TE-56A)* "Compare Particle Sizes" activity	*Differentiated Inquiry-Challenging (TE-56A)* "Observe Bubbles" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content • Student Edition with Audio • Leveled Readers		

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Unit 2: "The Engineering Process"
(9 instructional days)

"Big Idea": Technology is all around us. Engineers apply their knowledge of science to design solutions to practical problems.

Essential Questions of Unit 2:

- What is the design process?
- How can you design a solution to a problem?
- How does technology improve our lives?
- How can you use engineering to solve a problem?

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Unit 2 - Lesson #1: "What is the design process?"

Objectives	Standards	Activity	Suggested Time	Suggested Materials
SWBAT: • define engineering and technology • identify how engineers identify solutions to problems • explain why a prototype is developed	5.T.2.1.1 5.T.2.1.2 5.T.2.1.3	Engage/Explore	20-45 minutes	• Directed Inquiry – Flipchart Pg. 8 (Technology in Our Lives) • Independent Inquiry – Flipchart Pg. 8 (Invent Your Own Technology) • Power Notes presentation • Digital lesson • SE-63
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-64-73
		Extend/Evaluate	10 minutes	• Sum it Up SE-74 • Brain Check SE-75-78 • Unit 2-Lesson 1 Quiz AG-14

Key Words:	• Engineering and technology • Engineering design process	Academic Vocabulary:	• engineering • technology • prototype • criteria

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Unit 2 - Lesson #1: "What is the design process?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-61J-61K* *Understand the Prefix "re-"* - TE-67 *Distinguish Parts of Speech* - TE-68 *Analyze Word Parts* - TE-50	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-65, 66, 69, 72, 73* *Make Connections – Easy – TE-78A "Write a Letter About an Invention" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-65, 66, 69, 72, 73* *Make Connections – Challenging – TE-78A "Exercise and Engineered Products" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 2 - Lesson #2: "How can you design a solution to a problem?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • build a model to solve problems • explain how redesign differs from design • test a model using a unit of measurement • redesign a model based on test results • keep accurate design records	5.T.2.2.1 5.T.2.2.2 5.T.2.2.3 5.T.2.2.4 5.T.2.2.5	Engage/Explore	45 minutes	• Guided Inquiry: Flipchart Pg. 9 (How Can You Design a Solution to a Problem?) along with Lesson Inquiry – SE-79-80
		Explain	30-40 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 2-Lesson 2 Quiz AG-15

Key Words:	• Engineering and technology • Engineering design process	**Academic Vocabulary:**	• No new vocabulary introduced

Differentiating Instruction		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-61J-61K*	*Differentiated Inquiry-Easy (TE-80A)* "How Scientists Work" activity	*Differentiated Inquiry-Challenging (TE-80A)* "Density and Floating" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 2-Lesson # 3: "How does technology improve our lives?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Give examples of technology used in daily life • Describe why new products are developed • Identify consequences or tradeoffs associated with new technology	5.T.2.3.1 5.T.2.3.2 5.T.2.3.3	Engage/Explore	20-40 minutes	• Directed Inquiry – Flipchart Pg. 10 (Hello? Hello?) • Independent Inquiry – Flipchart Pg. 10 (Charting a Solution) • Power Notes presentation • Digital lesson • SE-81
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-82-89
		Extend/Evaluate	10 minutes	• Sum it Up SE-90 • Brain Check SE-91-92 • Unit 2-Lesson 3 Quiz AG-16

Key Words:	• Engineering and technology • Engineering design process	**Academic Vocabulary:**	• bioengineering • biotechnology

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Unit 2-Lesson # 3: "How does technology improve our lives?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-61J-61K* *Understand Unfamiliar Words* - TE-85	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-82, 83, 86, 87, 89* *Make Connections – Easy – TE-92A "A Song About Technology" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-82, 83, 86, 87, 89* *Make Connections – Challenging – TE-92A "Bioengineered Foods" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 2-Lesson # 4: "How can you use engineering to solve a problem?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Construct an object (can opener) • Design a tool to assist in the construction of the object • Analyze a tool and evaluate its effectiveness	5.T.2.4.1 5.T.2.4.2 5.T.2.4.3	Engage/Explore	40 minutes	• Guided Inquiry: Flipchart Pg. 11 (How Can You Use Engineering to Solve a Problem?) along with Lesson Inquiry – SE-95-96
		Explain	20 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 2-Lesson 4 Quiz AG-16 • Unit 2 Review – SE-97-100 • Unit 2 Test and Performance Assessment – AG 18-24 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-99

Key Words:	• Engineering and technology • Engineering design process	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 2-Lesson # 4: "How can you use engineering to solve a problem?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-61J-61K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-96A)* "That's a Big Jar!" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-96A)* "Identify Parts" Activity *Differentiated Inquiry-Challenging (TE-96A)* "Let's Take This Professional" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 3: "Cells to Body Systems"
(15 instructional days)

"Big Idea": All living things are made up of cells. Cells work together to make up tissues, organs, and organ systems.

Essential Questions of Unit 3:

- What are cells?
- How can we observe cells?
- How do cells work together?
- How do our bodies move, breathe, and circulate?
- How do our bodies digest food, remove waste, and send messages?
- How does the body stay cool?

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Unit 3-Lesson # 1: "What are cells?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe how cells are the basic unit of structure and function in living things • Identify the parts of plant and animal cells • Explain the cell theory	5.L.3.1.1 5.L.3.1.2 5.L.3.1.3	Engage/Explore	25-40 minutes	• Directed Inquiry – Flipchart Pg. 12 (Build a Better Cell) • Independent Inquiry – Flipchart Pg. 12 (Track That Trait) • Power Notes presentation • Digital lesson • SE-103
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-104-115
		Extend/Evaluate	10 minutes	• Sum it Up SE-116 • Brain Check SE-119-120 • Unit 3-Lesson 1 Quiz AG-25

Key Words:	• cells • human body	**Academic Vocabulary:**	• cell • organism • cell membrane • nucleus • inherited trait • dominant trait • recessive trait

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Unit 3-Lesson # 1: "What are cells?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-101L-101M* *English Language Learners* - TE-105, 106, 108, 110, 112, 114	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-104, 107, 111, 115* *Make Connections – Easy – TE-120A "Make a 3-D Cell" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-104, 107, 111, 115* *Make Connections – Challenging – TE-120A "Identify Pros and Cons of Gene Testing" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 3-Lesson # 2: "How can we observe cells?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Use a microscope to observe cell structures of different kinds of cells	5.L.3.2.1	Engage/Explore	40 minutes	• Guided Inquiry: Flipchart Pg. 14 (How Can We Observe Cells?) along with Lesson Inquiry – SE-123-124
		Explain	30 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 3-Lesson 2 Quiz AG-26

Key Words:	• cells • human body	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 3-Lesson # 2: "How can we observe cells?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-101L-101M*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-124A)* "Compare Other Cells" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-124A)* "Calculate the Number of Cells" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 3-Lesson # 3: "How do cells work together?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe the relationship between organs, organ systems, and organisms • Describe nervous system structures and their functions • Explain how the parts of the integumentary system help it function	5.L.3.3.1 5.L.3.3.2 5.L3.3.3	Engage/Explore	15-20 minutes	• Directed Inquiry – Flipchart Pg. 15 (Making Scents of It) • Independent Inquiry – Flipchart Pg. 15 (Act Fast!) • Power Notes presentation • Digital lesson • SE-125
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-126-135
		Extend/Evaluate	10 minutes	• Sum it Up SE-136 • Brain Check SE-137-138 • Unit 3-Lesson 3 Quiz AG-27

Key Words:	• cells • human body	**Academic Vocabulary:**	• tissue • organ • organ system • brain • skin

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Unit 3-Lesson # 3: "How do cells work together?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-101L-101M* *English Language Learners* - TE-127, 133 *Understand Compound Words* - TE-128 *Distinguish Between "You're" and "Your"* - TE-134	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-126, 129, 130, 135* *Make Connections – Easy – TE-138A "Make a Chart" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-126, 129, 130, 135* *Make Connections – Challenging – TE-16A "Compare Range of Hearing" activity*
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Unit 3-Lesson #4: "How do our bodies move, breathe, and circulate blood?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe the structures of the skeletal system and their functions • Explain how the muscular system functions • Describe how the human body respires • Describe how nutrients and oxygen are obtained and transported through the human body	5.L.3.4.1 5.L.3.4.2 5.L.3.4.3 5.L.3.4.4	Engage/Explore	15-45 minutes	• Directed Inquiry – Flipchart Pg. 16 (Muscle Burnout) • Independent Inquiry – Flipchart Pg. 16 (Circulate!) • Power Notes presentation • Digital lesson • SE-139
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-140-149
		Extend/Evaluate	10 minutes	• Sum it Up SE-150 • Brain Check SE-151-152 • Unit 3-Lesson 4 Quiz AG-28

Key Words:	• cells • human body	**Academic Vocabulary:**	• bones • muscles • lungs • heart

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Unit 3-Lesson #4: "How do our bodies move, breathe, and circulate blood?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-101L-101M* *Understand the Prefix in-* - TE-143 *Recognize the Letter 's' Pronounced as 'z'* - TE-147 *Onomatopoeia* - TE-149	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-140, 142, 144* *Make Connections – Easy – TE-152A "Play a Wind Instrument" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-140, 142, 144* *Make Connections – Challenging – TE-152A "Use Word Parts" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 3-Lesson #5: "How do our bodies digest food, remove wastes, and send messages?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Sequence he path of digestion in humans, and know the function of each organ involved with the process • Describe the role of the kidneys and bladder in the process of waste removal • Describe the function of the endocrine system and the role of hormone as chemical messengers	5.L.3.5.1 5.L.3.5.2 5.L.3.5.3	Engage/Explore	15-30 minutes	• Directed Inquiry – Flipchart Pg. 17 (The Power of Chewing) • Independent Inquiry – Flipchart Pg. 17 (Grow, Grow, Grow) • Power Notes presentation • Digital lesson • SE-153
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-154-161
		Extend/Evaluate	10 minutes	• Sum it Up SE-162 • Brain Check SE-163-164 • Unit 3-Lesson 5 Quiz AG-29

Key Words:	• cells • human body	**Academic Vocabulary:**	• stomach • pancreas • liver • kidneys • bladder

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Unit 3-Lesson #5: "How do our bodies digest food, remove wastes, and send messages?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-101L-101M* *Recognize Nouns That End in –tion* - TE-157 *Prefixes* - TE-159	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-155, 158, 160* *Make Connections – Easy – TE-164A "Write a Descriptive Sentence" activity* *Make Connections – Easy – TE-16A "Find an Average" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-155, 158, 160* *Make Connections – Challenging – TE-164A "Write a Persuasive Letter" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Science Curriculum Guide - Grade 5
Written by: Amy Wiker
Text/Program: *ScienceFusion*

Unit 3-Lesson # 6: "How does the body stay cool?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Demonstrate the effects of evaporative cooling on body temperature • Identify a control group and explain why it is necessary in an experiment • Explain the difference between personal interpretation and verified observation	5.L.3.6.1 5.L.3.6.2 5.L.3.6.3	Engage/Explore	20 minutes	• Guided Inquiry: Flipchart Pg. 18 (How Does the Body Stay Cool?) along with Lesson Inquiry – SE-167-168
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 3-Lesson 6 Quiz AG-30 • Unit 3 Review – SE-169-172 • Unit 3 Test and Performance Assessment – AG 31-37 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-171

Key Words:	• cells • human body	**Academic Vocabulary:**	• No new vocabulary introduced

Medford Lakes School District
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Unit 3-Lesson # 6: "How does the body stay cool?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-101L-101M*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-168A)* "Evaporative cooling on the Skin" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-168A)* "Evaporative Cooling and Boiling Water" Activity *Differentiated Inquiry-Challenging (TE-168A)* "Why Do We Blow on Hot Drinks to Cool Them?" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4: "How Living Things Grow and Reproduce"

(15 instructional days)

"Big Idea": All living things have observable characteristics that allow them to be classified. Plants and animals pass these characteristics on to their offspring.

Essential Questions of Unit 4:

- How are living things grouped?
- What is a dichotomous key?
- How do plants grow and reproduce?
- What factors affect germination rate?
- How do animals grow and reproduce?
- What are physical and behavioral adaptations?

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Lesson 4-Lesson # 1: "How are living things grouped?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Identify characters used to classify a group of objects • Describe the basic characteristics of the six kingdoms of organisms • Describe how scientists classify living things	5.L.4.1.1 5.L. 4.1.2 5.L. 4.1.3	Engage/Explore	15-30 minutes	• Directed Inquiry – Flipchart Pg. 19 (How Does a Dichotomous Key Work?) • Independent Inquiry – Flipchart Pg. 19 (Grocery Grouping) • Power Notes presentation • Digital lesson • SE-175
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-176-185
		Extend/Evaluate	10 minutes	• Sum it Up SE-186 • Brain Check SE-187-188 • Unit 4-Lesson 1 Quiz AG-38

Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• classification • dichotomous key • domain • genus • species
Differentiating Instruction			

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Lesson 4-Lesson # 1: "How are living things grouped?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-173L-173M* *Multiple Meaning Words* - TE-177 *Latin Names* – TE-179 *Prefixes* – TE-181 *Irregular Plurals* – TE-183	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-177, 178, 180* *Make Connections-Easy (TE-188A)* "Make Your Own Classification Table" Activity	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-177, 178, 180* *Make Connections-Challenging (TE-188A)* "Archaea in Extreme Environments" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4-Lesson # 2: "What is a dichotomous key?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Classify items based on characteristics that have or lack • Use a dichotomous key to classify items	5.L.4.2.1 5.L.4.2.2	Engage/Explore	30 minutes	• Guided Inquiry: Flipchart Pg. 20 (What is a Dichotomous Key?) along with Lesson Inquiry – SE-189-190
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 4-Lesson 2 Quiz AG-39

Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-173L-173M*	*Differentiated Inquiry-Easy - TE-190A* "A Simple Key" activity *Differentiated Inquiry-Easy - TE-190A* "Identify Candy" activity	*Differentiated Inquiry-Challenging - TE-190A* "Use a Scientific Dichotomous Key" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4-Lesson # 3: "How do pants grow and reproduce?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Know the reproductive structures of some vascular plants • Describe fertilization and seed development in plants • Explain the life cycle of simple plants	5.L.4.3.1 5.L.4.3.2 5.L.4.3.3	Engage/Explore	20-60 minutes	• Directed Inquiry – Flipchart Pg. 21 (Comparing Cones and Fruits) • Independent Inquiry – Flipchart Pg. 21 (Flowers in Hiding) • Power Notes presentation • Digital lesson • SE-191
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-192-201
		Extend/Evaluate	10 minutes	• Sum it Up SE-2002 • Brain Check SE-203-204 • Unit 4-Lesson 3 Quiz AG-40

Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• nonvascular plant • vascular plant • spore • gymnosperm • angiosperm • germinate
Differentiating Instruction			

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-173L-173M *Vascular Systems* - TE-193 *Microscopic* – TE-194 *Ovary* – TE-198 *Germinate* – TE-200	*Differentiation–Leveled Questions/Extra Support TE-195, 196, 201* *Make Connections – Easy – TE-204A "Expressing with Plants" activity*	*Differentiation–Leveled Questions/ Challenge TE-195, 196, 201* *Make Connections – Challenge – TE-204A "Flowers for All Occasions" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4-Lesson # 4: "What factors affect germination rate?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe and record how light affects germination rate • Observe and record how amount of water affects germination rate • Infer what other factors may affect germination rate	5.L.4.4.1 5.L.4.4.2 5.L.4.4.3	Engage/Explore	30 minutes	• Guided Inquiry: Flipchart Pg. 23 (What Factor Affect Germination Rate?) along with Lesson Inquiry – SE-207-208
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 4-Lesson 4 Quiz AG-41

Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-173L-173M*	*Differentiated Inquiry-Easy (TE-208A)* "Investigate Temperature" activity *Differentiated Inquiry-Easy (TE-208A)* "Do Germinated Seeds Need Soils to Grow Well?" activity	*Differentiated Inquiry-Challenging (TE-28A)* "Which Type of Soil?" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4-Lesson # 5: "How do animals grow and reproduce?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe how vertebrates and invertebrates are classified, and identify m embers of each group • Recognize that animal growth involves life cycles • Identify the stages of complete and incomplete metamorphosis	5.L.4.5.1 5.L.4.5.2 5.L.4.5.3	Engage/Explore	15-60 minutes	• Directed Inquiry – Flipchart Pg. 24 (How Can You Model a Backbone?) • Independent Inquiry – Flipchart Pg. 24 (How do They Change?) • Power Notes presentation • Digital lesson • SE-209
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-210-219
		Extend/Evaluate	10 minutes	• Sum it Up SE-220 • Brain Check SE-221-222 • Unit 4-Lesson 5 Quiz AG-42

Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• vertebrate • invertebrate • life cycle • complete metamorphosis • incomplete metamorphosis
Differentiating Instruction			

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-173L-173M *Nonverbal Communication* - TE-215 *Understanding Cycles* – TE-216	*Differentiation–Leveled Questions/Extra Support TE-210, 214, 218* *Make Connections – Easy – TE-222A "Animals in Song" activity*	*Differentiation–Leveled Questions/ Challenge TE-210, 214, 218* *Make Connections – Challenge – TE-222A "Ape Society" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 4-Lesson # 6: "What are physical and behavioral adaptations?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Define adaptation • Explain what physical and behavioral adaptations are • Describe how a life cycle variation could help an organism survive in a particular habitat	5.L.4.6.1 5.L.4.6.2 5.L.4.6.3	Engage/Explore	20-60 minutes	• Directed Inquiry – Flipchart Pg. 25 (Gobbling Up Your Greens) • Independent Inquiry – Flipchart Pg. 25 (Animal Adaptations) • Power Notes presentation • Digital lesson • SE-225
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-226-237
		Extend/Evaluate	10 minutes	• Sum it Up SE-238 • Brain Check SE-239-240 • Unit 4-Lesson 6 Quiz AG-43 • Unit 4 Review – SE-241-244 • Unit 4 Test and Performance Assessment – AG 44-50 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-243
Key Words:	• animals • heredity • plants	**Academic Vocabulary:**	• adaptation • instinct	
Differentiating Instruction				

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-173L-173M *Words Easily Confused* - TE-226 *Science Terms* – TE-228 *Understanding Idioms* – TE-231	*Differentiation–Leveled Questions/Extra Support TE-227, 232, 234, 236* *Make Connections – Easy – TE-240A "Comic Book" activity*	*Differentiation–Leveled Questions/ Challenge TE-177, 178, 180* *Make Connections – Challenge – TE-240A "Adaptations and Basic Needs" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 5: "Ecosystems"
(11 instructional days)

"Big Idea": Ecosystems change over time, both naturally and as a result of human activity.

Essential Questions of Unit 5:

- What is an ecosystem?
- What makes up a land ecosystem?
- How do environmental changes affect organisms?
- How does drought affect plants?

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Unit 5-Lesson # 1: "What is an ecosystem?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Know what an ecosystem is. • Explain how organisms interact with living and non-living things in their ecosystem • Identify factors that affect diversity	5.L.5.1.1 5.L.5.1.2 5.L.5.1.3	Engage/Explore	20-60 minutes	• Directed Inquiry – Flipchart Pg. 26 (The Population Puzzle) • Independent Inquiry – Flipchart Pg. 26 (Compare Climates) • Power Notes presentation • Digital lesson • SE-247
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-248-255
		Extend/Evaluate	10 minutes	• Sum it Up SE-256 • Brain Check SE-257-258 • Unit 5-Lesson 1 Quiz AG-51
Key Words:	• ecosystems	**Academic Vocabulary:**		• environment • ecosystem • population • community • habitat • niche
Differentiating Instruction				

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-245J-245K *Root Words* - TE-249 *Understanding Scientific Meanings* – TE-251	*Differentiation–Leveled Questions/Extra Support TE-249, 253, 255* *Make Connections – Easy – TE-258A "Art Connection" activity*	*Differentiation–Leveled Questions/Challenge TE-249, 253, 255* *Make Connections – Challenge – TE-258A "Social Studies Connection" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 5-Lesson # 2: "What makes up a land ecosystem?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe, identify, and classify common organisms, in a land ecosystem. • Compare the role, size, and diversity, of organisms. • Draw conclusions about how organisms interact in a land ecosystem.	5.L.5.2.1 5.L.5.2.2 5.L.5.3.3	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 27 (What Makes Up a Land Ecosystem?) along with Lesson Inquiry – SE-261-262
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 5-Lesson 2 Quiz AG-52
Key Words:	• ecosystems	**Academic Vocabulary:**	• No new vocabulary introduced	
Differentiating Instruction				

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-245J-245K*	*Differentiated Inquiry-Easy (TE-262A)* "Native Plant Garden" activity	*Differentiated Inquiry-Challenging (TE-262A)* "Population Estimates" Activity *Differentiated Inquiry-Challenging (TE-262A)* "Invasive Plants" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Lesson # 3: "How do environmental changes affect organisms?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Recognize succession as a change of the organisms living in an ecosystem. • Describe how changing ecosystems affect the organisms living there. • Explain how changes can cause extinction.	5.L.5.3.1 5.L.5.3.2 5.L.5.3.3	Engage/Explore	15-30 minutes	• Directed Inquiry – Flipchart Pg. 28 (Hunting for Beans) • Independent Inquiry – Flipchart Pg. 28 (Compost in a Bag • Power Notes presentation • Digital lesson • SE-263
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-264-275
		Extend/Evaluate	10 minutes	• Sum it Up SE-276 • Brain Check SE-277-280 • Unit 5-Lesson 3 Quiz AG-53
Key Words:	• ecosystems	**Academic Vocabulary:**	• succession • extinction	
Differentiating Instruction				

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-245J-245K *Understanding Adjectival Phrases* - TE-264	*Differentiation–Leveled Questions/Extra Support TE-266, 269, 271, 273, 274* *Make Connections – Easy – TE-280A "Music Connection" activity* *Make Connections – Easy – TE-280A "Write a Persuasive Letter" activity*	*Differentiation–Leveled Questions/ Challenge TE-266, 269, 271, 273, 274* *Make Connections – Challenging – TE-280A "Investigate a Culture" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 5-Lesson # 4: "How does drought affect plants?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Model normal growing conditions, drought, and flood conditions. • Describe how normal growing conditions affect plants. • Describe the effects of drought conditions on plant growth. • Describe the effects of flood conditions on plant growth.	5.L.5.4.1 5.L.5.4.2 5.L.5.4.3 5.L.5.4.4	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 30 (How Does Drought Affect Plants?) along with Lesson Inquiry – SE-283-284
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 5-Lesson 4 Quiz AG-54 • Unit 5 Review – SE-285-288 • Unit 5 Test and Performance Assessment – AG 55-61 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-287

Key Words:	• ecosystems	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-245J-245K*	*Differentiated Inquiry-Easy (TE-284A)* "Control Variables" activity *Differentiated Inquiry-Easy (TE-284A)* "Display data on a Graph" activity	*Differentiated Inquiry-Challenging (TE-284A)* "Design an Experiment?" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 6: "Ecosystems"
(9 instructional days)

"Big Idea": Living things interact with one another in ecosystems. Energy flows from the sun to plants and animals.

Essential Questions of Unit 6:

- What are roles of organisms in ecosystems?
- How does energy move through ecosystems?
- What roles do decomposers play?

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Unit 6-Lesson # 1: "What are roles of organisms in ecosystems?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Identify producers and consumers • Define and describe photosynthesis • Learn how organisms obtain nutrients	5.L.6.1.1 5.L.6.1.2 5.L.6.1.3	Engage/Explore	20-30 minutes	• Directed Inquiry – Flipchart Pg. 291 (True Colors) • Independent Inquiry – Flipchart Pg. 291 (A "Super" Predator) • Power Notes presentation • Digital lesson • SE-291
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-292-301
		Extend/Evaluate	10 minutes	• Sum it Up SE-302 • Brain Check SE-303-304 • Unit 6-Lesson 1 Quiz AG-62

Key Words:	• food chains • food webs	**Academic Vocabulary:**	• photosynthesis • chlorophyll • producer • consumer • decomposer

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Unit 6-Lesson # 1: "What are roles of organisms in ecosystems?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-289J-289K* *Producer and Consumer* - TE-294 *Differentiating Predators and Scavengers* - TE-298	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-292, 297, 299, 301* *Make Connections – Easy – TE-304A "Squirrels, Walnut Trees, and Nests" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-292, 297, 299, 301* *Make Connections – Challenging – TE-304A "The Day the Rain Forest Disappeared" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 6-Lesson # 2: "How does energy move through ecosystems?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe how energy moves through an ecosystem • Understand food chains and food webs	5.L.6.2.1 5.L.6.2.2	Engage/Explore	30-40 minutes	• Directed Inquiry – Flipchart Pg. 32 (Model a Food Web) • Independent Inquiry – Flipchart Pg. 32 (Bring It Home) • Power Notes presentation • Digital lesson • SE-307
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-308-313
		Extend/Evaluate	10 minutes	• Sum it Up SE-314 • Brain Check SE-315-318 • Unit 6-Lesson 2 Quiz AG-63

Key Words:	• food chains • food webs	**Academic Vocabulary:**	• food chain • food web • energy pyramid

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Unit 6-Lesson # 2: "How does energy move through ecosystems?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-289J-289K* *Consumers* - TE-311 *Energy Pyramids* - TE-313	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-308, 312* *Make Connections – Easy – TE-318A "Food Chains in Your Neighborhood" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-308, 312* *Make Connections – Challenging – TE-318A "A Plant-Based Diet" activity*
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Unit 6-Lesson # 3: "What roles do decomposers play?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe the growth of a fungus. • Describe the decomposition process. • Classify a fungus as a decomposer • Explain why decomposers are important to an ecosystem	5.L.6.3.1 5.L.6.3.2 5.L.6.3.3 5.L.6.3.4	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 34 (What Role Do Decomposers Play?) along with Lesson Inquiry – SE-321-322
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 6-Lesson 3 Quiz AG-64 • Unit 6 Review – SE-323-326 • Unit 6 Test and Performance Assessment – AG 65-71 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-325

Key Words:	• food chains • food webs	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 6-Lesson # 3: "What roles do decomposers play?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-289J-289K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-322A)* "Further Observations of Mold" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-322A)* "Growing Mushrooms" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 7: "Natural Resources"
(9 instructional days)

"Big Idea": Natural resources are essential to life and must be used with care.

Essential Questions of Unit 7:

- How do people use resources?
- How do people conserve resources?
- How can we conserve natural resources?

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Unit 7-Lesson # 1: "How do people use resources?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain what a resource is. • Identify some of the resources found in the United States. • Describe air, water, and land pollution.	5.E.7.1.1 5.E.7.1.2 5.E.7.1.3	Engage/Explore	30-40 minutes	• Directed Inquiry – Flipchart Pg. 35 (Catch That Dirt!) • Independent Inquiry – Flipchart Pg. 35 (What's in Your Water?) • Power Notes presentation • Digital lesson • SE-329
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-330-337
		Extend/Evaluate	10 minutes	• Sum it Up SE-338 • Brain Check SE-339340 • Unit 7-Lesson 1 Quiz AG-72

Key Words:	• natural resources • water	**Academic Vocabulary:**	• natural resource • renewable resource • nonrenewable resource • pollution
Differentiating Instruction			

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Unit 7-Lesson # 1: "How do people use resources?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-327J-327K* *Explore the Prefix non-* - TE-331 *Act It Out* - TE-334	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-330, 332, 336* *Make Connections – Easy – TE-340A "Solve a Problem" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-330, 332, 336* *Make Connections – Challenging – TE-340A "Your State's Resources" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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<table>
<tr><th colspan="5">Unit 7-Lesson # 2: “How do people conserve resources?”</th></tr>
<tr><th>Objectives</th><th>Standards</th><th>Activity</th><th>Suggested Time</th><th>Suggested Materials</th></tr>
<tr><td rowspan="3">SWBAT:

• Understand conservation and its importance.
• Identify ways in which people can contribute to conservation efforts.</td><td rowspan="3">5.E.7.2.1
5.E.7.2.2</td><td>Engage/Explore</td><td>20-25 minutes</td><td>• Directed Inquiry – Flipchart Pg. 37 (Hydroponics or the Future!)
• Independent Inquiry – Flipchart Pg. 37 (Recycling Rates)
• Power Notes presentation
• Digital lesson
• SE-343</td></tr>
<tr><td>Explain</td><td>40-80 minutes</td><td>• Power Notes presentation
• Digital lesson
• SE-344-351</td></tr>
<tr><td>Extend/Evaluate</td><td>10 minutes</td><td>• Sum it Up SE-352
• Brain Check SE-353-354
• Unit 7-Lesson 2 Quiz AG-73</td></tr>
<tr><td>Key Words:</td><td colspan="2">• natural resources
• water</td><td>Academic Vocabulary:</td><td>• conservation</td></tr>
<tr><td colspan="5">Differentiating Instruction</td></tr>
</table>

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Unit 7-Lesson # 2: "How do people conserve resources?"		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-327J-327K *The Prefix re-* - TE-345 *Energy* - TE-350	*Differentiation–Leveled Questions/Extra Support TE-344, 348* *Make Connections – Easy – TE-354A "Make a Map" activity* *Make Connections – Easy – TE-354A "Pick Up Litter" activity*	*Differentiation–Leveled Questions/ Challenge TE-344, 348* *Make Connections – Challenging – TE-354A "Write a Story" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 7-Lesson # 3: "How can we conserve natural resources?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe the growth of a fungus. • Describe the decomposition process. • Classify a fungus as a decomposer • Explain why decomposers are important to an ecosystem	5.E.7.3.1	Engage/Explore	35-45 minutes	• Guided Inquiry: Flipchart Pg. 38 (How Can We Conserve Resources?) along with Lesson Inquiry – SE-357-358
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 7-Lesson 3 Quiz AG-74 • Unit 7 Review – SE-359-362 • Unit 7 Test and Performance Assessment – AG 75-81 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-361

Key Words:	• natural resources • water	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 7-Lesson # 3: "How can we conserve natural resources?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-327J-327K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-358A)* "Compare Paper" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-358A)* "Design an Investigation" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 8: "Changes to Earth's Surface"
(11 instructional days)

"Big Idea": Earth's surface is constantly changing.

Essential Questions of Unit 8:

- How do weathering and erosion shape Earth's surface?
- How does water change Earth's surface?
- How do movements of the crust change Earth?
- How do plates move?

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Unit 8-Lesson # 1: "How do weathering and erosion shape Earth's surface?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain what is weathering and how it can change rock. • Explain how erosion and deposition change Earth's surface. • Describe how landforms can change over time. • Contrast physical weathering and erosion.	5.E.8.1.1 5.E.8.1.2 5.E.8.1.3 5.E.8.1.4	Engage/Explore	15-40 minutes	• Directed Inquiry – Flipchart Pg. 39 (Grooving with Glaciers!) • Independent Inquiry – Flipchart Pg. 39 (Which Will Weather Faster?) • Power Notes presentation • Digital lesson • SE-365
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-366-377
		Extend/Evaluate	10 minutes	• Sum it Up SE-378 • Brain Check SE-379-382 • Unit 8-Lesson 1 Quiz AG-82

Key Words:	• Earth's changing surface • earthquakes • volcanoes	**Academic Vocabulary:**	• weathering • erosion • deposition

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Unit 8-Lesson # 1: "How do weathering and erosion shape Earth's surface?"		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-363J-363K* *Understanding 'erode' and 'erosion'*- TE-368 *Pronounce ad Use Moraines* - TE-372 *Multiple Meanings* - TE-376	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-369, 371, 375* *Make Connections – Easy – TE-382A "Make a Map" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-369, 371, 375* *Make Connections – Challenging – TE-382A "The Story of Sediment" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 8-Lesson # 2: "How does water change Earth's surface?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Compare the effects of water moving at different speeds. • Hypothesize about the causes and effects of water speed and slope in erosion.	5.E.8.2.1 5.E.8.2.2	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 41 (How Does Water Change Earth's Surface?) along with Lesson Inquiry – SE-385-386
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 8-Lesson 1 Quiz AG-83

Key Words:	• Earth's changing surface • earthquakes • volcanoes	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 8-Lesson # 2: "How does water change Earth's surface?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-363J-363K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-386A)* "Test variables Affecting Erosion" activity *Differentiated Inquiry-Easy (TE-386A)* "Model How Ice Can Break Rocks" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-386A)* "Model the Dust Bowl" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 8-Lesson # 3: "How do movements of the crust change Earth?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe what is below Earth's surface. • Explain how the movement of Earth's crust can change Earth.	5.E.8.3.1 5.E.8.3.2	Engage/Explore	25-60 minutes	• Directed Inquiry – Flipchart Pg. 42 (Make a Scale Model of Earth's Interior) • Independent Inquiry – Flipchart Pg. 42 (Model a Volcanic Eruption) • Power Notes presentation • Digital lesson • SE-387
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-388-399
		Extend/Evaluate	10 minutes	• Sum it Up SE-400 • Brain Check SE-401-4002 • Unit 8-Lesson 3 Quiz AG-84

Key Words:	• Earth's changing surface • earthquakes • volcanoes	**Academic Vocabulary:**	• crust • mantle • core • plate tectonics • fault • earthquake • epicenter • volcano
Differentiating Instruction			

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Unit 8-Lesson # 3: "How do movements of the crust change Earth?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-363J-363K* *Plate* - TE-390 *Write Captions* - TE-393 *Multiple Meaning Words* - TE-397 *Erupt* - TE-398	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-388, 391, 395, 399* *Make Connections – Easy – TE-402A "Uncovering a Buried Culture" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-388, 391, 395, 399* *Make Connections – Challenging – TE-402A "Timeline of an Eruption" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 8-Lesson # 4: "How do plates move?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Model the movement of plates. • Recognize what happens to Earth's surface when plates move.	5.E.8.4.1 5.E.8.4.2	Engage/Explore	35-45 minutes	• Guided Inquiry: Flipchart Pg. 38 (How Do Plates Move?) along with Lesson Inquiry – SE-405-406
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 8-Lesson 4 Quiz AG-85 • Unit 8 Review – SE-407-410 • Unit 8 Test and Performance Assessment – AG 86-92 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-409
Key Words:	• Earth's changing surface • earthquakes • volcanoes	**Academic Vocabulary:**	• No new vocabulary introduced	
Differentiating Instruction				

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Unit 8-Lesson # 4: "How do plates move?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-363J-363K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-406A)* "Model Earth's Surface Area" activity *Differentiated Inquiry-Easy (TE-406A)* "Explore Earthquakes on Boundaries" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-406A)* "Model actions in the Mantle" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 9: "The Rock Cycle"
(11 instructional days)

"Big Idea": Rocks and minerals are formed and changed through different Earth processes.

Essential Questions of Unit 9:

- What are minerals?
- What are properties of minerals?
- How can rocks be classified?
- How can you model changes in rocks?

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Unit 9-Lesson # 1: "What are minerals?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain what minerals are and how they form. • Identify the physical properties of minerals. • Sort minerals into groups based on their physical properties.	5.E.9.1.1 5.E.9.1.2 5.E.9.1.3	Engage/Explore	25-300 (1 week) minutes	• Directed Inquiry – Flipchart Pg. 44 (Mineral Match Up) • Independent Inquiry – Flipchart Pg. 44 (Growing Crystals) • Power Notes presentation • Digital lesson • SE-413
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-414-419
		Extend/Evaluate	10 minutes	• Sum it Up SE-420 • Brain Check SE-421-422 • Unit 9-Lesson 1 Quiz AG-93
Key Words:	• minerals • rocks	**Academic Vocabulary:**	• mineral	
Differentiating Instruction				

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Unit 9-Lesson # 1: "What are minerals?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-411J-411K* *Use 'Element' in Questions and Answers* - TE-415 *Using Cleavage and Fracture* – TE-419	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-414, 417* *Make Connections – Easy – TE-422A "Crafts with Crystals" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-414, 417* *Make Connections – Challenging – TE-422A "Munching on Minerals" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 9-Lesson # 2: "What are properties of minerals?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Describe the physical properties of several mineral samples. • Compare and contrast the hardness and streak of several minerals. • Predict the relative hardness of a mineral.	5.E.9.2.1 5.E.9.2.2 5.E.9.2.3	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 45 (What are Properties of Minerals?) along with Lesson Inquiry – SE-425-426
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 9-Lesson 2 Quiz AG-94

Key Words:	• minerals • rocks	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 9-Lesson # 2: "What are properties of minerals?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-411J-411K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-426A)* "Observe More Minerals" activity *Differentiated Inquiry-Easy (TE-426A)* "Examine Table Salt Close-Up" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-426A)* "Classify Minerals by Crystal Shape" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 9-Lesson # 3: "How can rocks be classified?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Recognize that Earth's surface is made up of rocks • Recognize the physical characteristics of rock. • Identify the three types of rock, and explain how each forms.	5.E.9.3.1 5.E.9.3.2 5.E.9.3.3	Engage/Explore	15-45 minutes	• Directed Inquiry – Flipchart Pg. 46 (Make a Sedimentary Rock) • Independent Inquiry – Flipchart Pg. 46 (Identifying Rocks) • Power Notes presentation • Digital lesson • SE-427
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-428-437
		Extend/Evaluate	10 minutes	• Sum it Up SE-438 • Brain Check SE-439-442 • Unit 9-Lesson 3 Quiz AG-95

Key Words:	• minerals • rocks	**Academic Vocabulary:**	• rock • igneous rock • sedimentary rock • metamorphic rock
Differentiating Instruction			

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Unit 9-Lesson # 3: "How can rocks be classified?"		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-411J-411K *Parts of Speech* - TE-428 *Use 'Sediment' and 'Sedimentary'* - TE-430 *Pronounce 'Schist' and 'Gneiss'* - TE-433	*Differentiation–Leveled Questions/Extra Support TE-431, 434, 436* *Make Connections – Easy – TE-442A "Rock Sculptures" activity*	*Differentiation–Leveled Questions/ Challenge TE-431, 434, 436* *Make Connections – Challenging – TE-442A "Rock Report" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 9-Lesson # 4: "How can you model changes in rocks?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Explore how rock changes from one type to another.	5.E.9.4.1	Engage/Explore	35-45 minutes	• Guided Inquiry: Flipchart Pg. 48 (How Can you Model Changes in Rock?) along with Lesson Inquiry – SE-445-446
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 9-Lesson 4 Quiz AG-96 • Unit 9 Review – SE-447-450 • Unit 9 Test and Performance Assessment – AG 97-103 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-449

Key Words:	• minerals • rocks	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 9-Lesson # 4: "How can you model changes in rocks?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-411J-411K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-446A)* "Model Sedimentary Rock Formation" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-446A)* "Make a Model Volcano" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 10: "Fossils"
(9 instructional days)

"Big Idea": Fossils help us understand Earth's history.

Essential Questions of Unit 10:

- What are fossils?
- What was ancient Earth like?
- How can scientists use fossils?

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Unit 10-Lesson # 1: "What are fossils?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Understand how fossils and fossil fuels are formed • Recognize different types of fossils.	5.E.10.1.1 5.E.10.1.2	Engage/Explore	30-75 minutes	• Directed Inquiry – Flipchart Pg. 49 (What Made It?) • Independent Inquiry – Flipchart Pg. 49 (All of That Came From Oil?) • Power Notes presentation • Digital lesson • SE-453
		Explain	40 minutes	• Power Notes presentation • Digital lesson • SE-454-459
		Extend/Evaluate	10 minutes	• Sum it Up SE-460 • Brain Check SE-461-462 • Unit 10-Lesson 1 Quiz AG-104
Key Words:	• fossils	**Academic Vocabulary:**		• fossil • mold • cast • fossil fuel
Differentiating Instruction				

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Unit 10-Lesson # 1: "What are fossils?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-451J-451K* *Understanding Multi-Meaning Words* - TE-454 *Oral Language Development* - TE-458	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-455* *Make Connections – Easy – TE-462A "Dinosaur Models" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-455* *Make Connections – Challenging – TE-462A "Make a Scale Drawing" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 10-Lesson # 2: "What was ancient Earth like?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Relate what fossils tells us about Earth. • Describe what an index fossil is. • Understand how fossils can be used to learn about ancient ecosystems.	5.E.10.2.1 5.E.10.2.2 5.E.10.2.3 5.E.10.2.4	Engage/Explore	40-90 minutes	• Directed Inquiry – Flipchart Pg. 51 (Footprints in the Sand) • Independent Inquiry – Flipchart Pg. 51 (A Place for a Vacation?) • Power Notes presentation • Digital lesson • SE-465
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-466-475
		Extend/Evaluate	10 minutes	• Sum it Up SE-476 • Brain Check SE-477-480 • Unit 10-Lesson 2 Quiz AG-105
Key Words:	• fossils	**Academic Vocabulary:**		• index fossil • mass extinction
Differentiating Instruction				

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Unit 10-Lesson # 2: "What was ancient Earth like?"		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-451J-451K *Understanding and Pronouncing Era Names* - TE-468 *Using Fossils to Indicate Environments* - TE-472 *Multiple Meaning Words* - TE-474	*Differentiation–Leveled Questions/Extra Support TE-471, 473, 475* *Make Connections – Easy – TE-480A "Pleistocene Dioramas" activity*	*Differentiation–Leveled Questions/ Challenge TE-471, 473, 475* *Make Connections – Challenging – TE-480A "Dino Disaster" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 10-Lesson # 3: "How can scientists use fossils?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Understand how fossils are used to find the ages of rock layers	5.E.10.3.1	Engage/Explore	30 minutes	• Guided Inquiry: Flipchart Pg. 52 (How Can Scientists Use Fossils?) along with Lesson Inquiry – SE-483-484
		Explain	30 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 10-Lesson 3 Quiz AG-106 • Unit 10 Review – SE-485-488 • Unit 10 Test and Performance Assessment – AG 107-113 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-487

Key Words:	• fossils	**Academic Vocabulary:**	• No new vocabulary introduced

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Unit 10-Lesson # 3: "How can scientists use fossils?"		
Differentiating Instruction		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-451J-451K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-484A)* "Identify Fossil Types" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-484A)* "Draw a Conclusion" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 11: "Earth's Oceans"
(11 instructional days)

"Big Idea": Oceans are complex systems that interact with Earth's land, air, and organisms.

Essential Questions of Unit 11:

- What are the oceans like?
- How does ocean water move?
- How can you model ocean water?
- What are some ocean ecosystems?

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Unit 11-Lesson # 1: "What are the oceans like?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Recognize how water differs in different parts of the ocean. • Describe what the ocean floor looks like.	5.E.11.1.1 5.E.11.1.2	Engage/Explore	30-60 minutes	• Directed Inquiry – Flipchart Pg. 53 (Get the Salt Out) • Independent Inquiry – Flipchart Pg. 53 (Model the Ocean Floor) • Power Notes presentation • Digital lesson • SE-491
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-492-499
		Extend/Evaluate	10 minutes	• Sum it Up SE-500 • Brain Check SE-501-502 • Unit 11-Lesson 1 Quiz AG-114
Key Words:	• oceans	**Academic Vocabulary:**		• salinity • water pressure • continental shelf • continental slope • abyssal plain
Differentiating Instruction				

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Unit 11-Lesson # 1: "What are the oceans like?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-489J-490K* *Word Parts* - TE-494 *Make Picture Dictionaries* - TE-497 *Multiple-Meaning Words* - TE-498	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-492, 495, 496* *Make Connections – Easy – TE-502A "Adding Suffixes –al or -ic" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/Extra Support TE-492, 495, 496* *Make Connections – Challenging – TE-502A "Model Ocean Volumes" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 11-Lesson # 2: "How does ocean water move?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Understand how ocean waves form. • Identify what causes currents and tides. • Explain how ocean waves and currents shape the shore.	5.E.11.2.1 5.E.11.2.2 5.E.11.2.3	Engage/Explore	45 minutes	• Directed Inquiry – Flipchart Pg. 55 (Build a Jetty) • Independent Inquiry – Flipchart Pg. 55 (Model Waves and Currents) • Power Notes presentation • Digital lesson • SE-505
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-506-513
		Extend/Evaluate	10 minutes	• Sum it Up SE-514 • Brain Check SE-515-516 • Unit 11-Lesson 2 Quiz AG-115
Key Words:	• minerals • rocks	**Academic Vocabulary:**		• wave • current • tide • jetty • shore
Differentiating Instruction				

Medford Lakes School District
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Written by: Amy Wiker
Text/Program: *ScienceFusion*

Unit 11-Lesson # 2: "How does ocean water move?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-489J-490K* *Exploring Affixes* - TE-507 *Use Multiple Meanings: current*- TE-508 *Understanding the Prefix re-* - TE-512	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-506, 509, 510* *Make Connections – Easy – TE-516A "Write a Ship's Journal" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-506, 509, 510* *Make Connections – Challenging – TE-516A "Model a Tsunami" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 11-Lesson # 3: "How can you model ocean water?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe how temperature affects ocean currents. • Observe how salinity affects ocean currents.	5.E.11.3.1 5.E.11.3.1	Engage/Explore	45-60 minutes	• Guided Inquiry: Flipchart Pg. 56 (How Can You Model Ocean Water?) along with Lesson Inquiry – SE-517-518
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 11-Lesson 3 Quiz AG-116

Key Words:	• minerals • rocks	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 11-Lesson # 3: "How can you model ocean water?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-489J-490K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-518A)* "Predict the Density of a Golf Ball" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-518A)* "Design an Investigation" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 11-Lesson # 4: "What are some ocean ecosystems?				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Recognize different ocean ecosystems. • Understand how the environment affects ocean ecosystems	5.E.11.4.1 5.E.11.4.2	Engage/Explore	35 minutes	• Directed Inquiry – Flipchart Pg. 57 (Blubber) • Independent Inquiry – Flipchart Pg. 57 (Coral Construction) • Power Notes presentation • Digital lesson • SE-519
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-520-527
		Extend/Evaluate	10 minutes	• Sum it Up SE-528 • Brain Check SE-529-530 • Unit 11-Lesson 4 Quiz AG-117 • Unit 11 Review – SE-533-536 • Unit 11 Test and Performance Assessment – AG 118-124 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-535

Key Words:	• minerals • rocks	**Academic Vocabulary:**	• intertidal zone • coral reefs • plankton

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Unit 11-Lesson # 4: "What are some ocean ecosystems?		
Differentiating Instruction		
English Language Learners *Differentiated Instruction-English Language Learners – TE-489J-490K* *Understand Homonyms tidal and title* - TE-521 *Understand Homographs: "buffet"* - TE-522 *Using –like to Form Adjectives* - TE-526	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-520, 524, 527* *Make Connections – Easy – TE-530A "Make Flash Cards" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-520, 524, 527* *Make Connections – Challenging – TE-530A "Model Whale Songs" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 12: "The Solar System and the Universe"
(9 instructional days)

"Big Idea": Earth is part of a solar system, which is made up of many different objects orbiting the sun.

Essential Questions of Unit 12:

- What objects are part of the solar system?
- How do we observe objects in the solar system?
- What are stars and galaxies?

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Unit 12-Lesson # 1: "What objects are part of the solar system?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Identify the major components of the solar system. • Describe the major characteristics of the planets of the solar system. • Compare and contrast the inner and outer planets.	5.E.12.1.1 5.E.12.1.2 5.E.12.1.3 5.E.12.1.4	Engage/Explore	30-40 minutes	• Directed Inquiry – Flipchart Pg. 58 (Make a Scale Model) • Independent Inquiry – Flipchart Pg. 58 (First Sightings) • Power Notes presentation • Digital lesson • SE-539
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-540-551
		Extend/Evaluate	10 minutes	• Sum it Up SE-552 • Brain Check SE-553-556 • Unit 11-Lesson 1 Quiz AG-125

Key Words:	• exploring space • solar system	**Academic Vocabulary:**	• solar system • planet • dwarf planet • asteroid • comet
Differentiating Instruction			

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Written by: Amy Wiker
Text/Program: *ScienceFusion*

Unit 12-Lesson # 1: "What objects are part of the solar system?"		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-537J-537K *Understanding Synonyms* - TE-540 *Distinguish Between Nouns and verbs* - TE-545 *Analyzing Word Parts* - TE-548	*Differentiation–Leveled Questions/Extra Support TE-541, 542, 547, 549, 551* *Make Connections – Easy – TE-556A "Write Space Poems" activity*	*Differentiation–Leveled Questions/ Challenge TE-541, 542, 547, 549, 551* *Make Connections – Challenging – TE-556A "Newspaper Article" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 12-Lesson # 2: "How do we observe objects in the solar system?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Describe and model ways scientists learn about objects in the solar system. • Demonstrate how observations are make and refined by asking questions.	5.E.12.2.1 5.E.12.2.2	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 59 (How Do We Observe Objects in the Solar System?) along with Lesson Inquiry – SE-559-560
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 12-Lesson 2 Quiz AG-126
Key Words:	• exploring space • solar system	**Academic Vocabulary:**	• No new vocabulary introduced	
Differentiating Instruction				

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Unit 12-Lesson # 2: "How do we observe objects in the solar system?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-537J-537K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-560A)* "Observing the Moon" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-560A)* "Design a Space Probe" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 12-Lesson # 3: "What are stars and galaxies?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain that stars are very large and appear small in the sky because they are far away. • Explain what galaxies are and how they are classified. • Describe the solar system's place in the Milky Way galaxy.	5.E.12.3.1 5.E.12.3.2 5.E.12.3.3	Engage/Explore	20-40 minutes	• Directed Inquiry – Flipchart Pg. 60 (A Small Slice of the Universe) • Independent Inquiry – Flipchart Pg. 60 (Colorful Stars) • Power Notes presentation • Digital lesson • SE-561
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-562-567
		Extend/Evaluate	10 minutes	• Sum it Up SE-568 • Brain Check SE-569-570 • Unit 12-Lesson 3 Quiz AG-127 • Unit 12 Review – SE-573-576 • Unit 12 Test and Performance Assessment – AG 128-134 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-575

Key Words:	• exploring space • solar system	**Academic Vocabulary:**	• astronomy • star • universe • galaxy
Differentiating Instruction			

Medford Lakes School District
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Unit 12-Lesson # 3: "What are stars and galaxies?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-537J-537K* *Understand Multiple-Meaning Words* - TE-562 *Recognize the Prefix ir-* - TE-566	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-563, 564* *Make Connections – Easy – TE-570A "Create a Galaxy" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-563, 564* *Make Connections – Challenging – TE-570A "Name the Brightest Star" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13: "Matter"
(15 instructional days)

"Big Idea": All matter has properties that can be observed, described, and measured.

Essential Questions of Unit 13:

- What are solids, liquids, and gases?
- How does water change?
- How does matter change?
- What are mixtures and solutions?
- What affects the speed of dissolving?
- What is the atomic theory?

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Unit 13-Lesson # 1: "What are solids, liquids, and gases?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe some physical properties of matter. • Relate the states of matter to temperature and the arrangement and movement of particles. • Compare solids, liquids, and gases based on their physical properties.	5.P.13.1.1 5.P.13.1.2 5.P.13.1.3	Engage/Explore	30-40 minutes	• Directed Inquiry – Flipchart Pg. 62 (Find the Freezing Point) • Independent Inquiry – Flipchart Pg. 62 (Playing with Properties) • Power Notes presentation • Digital lesson • SE-579
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-580-588
		Extend/Evaluate	10 minutes	• Sum it Up SE-590 • Brain Check SE-591-592 • Unit 13-Lesson 1 Quiz AG-135
Key Words:	• atoms • changes in matter • states of matter	**Academic Vocabulary:**	• matter • volume • temperature • gas • liquid • solid	
Differentiating Instruction				

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Unit 13-Lesson # 1: "What are solids, liquids, and gases?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-577J-577K* *Compare and Contrast* - TE-581 *Reinforce Concepts* - TE-585 *Use Condenses and Condensation* - TE-587	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-580, 583, 584, 589* *Make Connections – Easy – TE-592A "Art with Properties" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-580, 583, 584, 589* *Make Connections – Challenging – TE-592A "Sports and States of Matter" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13-Lesson # 2: "How does water change?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Recognize that some properties, such as shape and appearance, may change during a change of state. • Students will recognize that the mass volume of water remains unchanged as it undergoes a change of state.	5.P.13.2.1 5.P.13.2.2	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 64 (How does water change?) along with Lesson Inquiry – SE-595-596
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 13-Lesson 2 Quiz AG-136
Key Words:	• atoms • changes in matter • states of matter	**Academic Vocabulary:**	• No new vocabulary introduced	
Differentiating Instruction				

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Unit 13-Lesson # 2: "How does water change?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-577J-577K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-596A)* "Does Volume Affect Mass?" activity *Differentiated Inquiry-Easy (TE-596A)* "Investigating Freezing" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-596A)* "Design an Experiment" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13-Lesson # 3: "How does matter change?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Compare and contrast physical changes and chemical changes. • Understand that during any physical or chemical change, the total mass remains unchanged.	5.P.13.3.1 5.P.13.3.2	Engage/Explore	30-40 minutes	• Directed Inquiry – Flipchart Pg. 65 (Observe Some Chemical Changes) • Independent Inquiry – Flipchart Pg. 65 (Shhhh! Secret Messages) • Power Notes presentation • Digital lesson • SE-597
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-598-607
		Extend/Evaluate	10 minutes	• Sum it Up SE-608 • Brain Check SE-609612 • Unit 13-Lesson 3 Quiz AG-137
Key Words:	• atoms • changes in matter • states of matter	**Academic Vocabulary:**	• physical changes • chemical changes • reaction • conservation of mass	
Differentiating Instruction				

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Unit 13-Lesson # 3: "How does matter change?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-577J-577K* *Use Synonyms and Antonyms* - TE-600 *Use Multi-Meaning Word "Buckle"* - TE-603	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-598, 602, 604* *Make Connections – Easy – TE-612A "Melt Ice" activity* *Make Connections – Easy – TE-612A "Take a Temperature" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-598, 602, 604* *Make Connections – Challenging – TE-612A "Write a Menu" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13-Lesson # 4: "What are mixtures and solutions?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Compare and contrast mixtures and solutions. • Determine ways that mixtures can be separated. • Classify substances based on whether they dissolve in water. • Relate the properties of mixtures with the properties of starting materials.	5.P.13.4.1 5.P.13.4.2 5.P.13.4.3	Engage/Explore	20-40 minutes	• Directed Inquiry – Flipchart Pg. 66 (An Inky Mixture) • Independent Inquiry – Flipchart Pg. 66 (Does It Dissolve?) • Power Notes presentation • Digital lesson • SE-613
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-614-621
		Extend/Evaluate	10 minutes	• Sum it Up SE-622 • Brain Check SE-623-626 • Unit 13-Lesson 4 Quiz AG-138
Key Words:	• atoms • changes in matter • states of matter	**Academic Vocabulary:**	• mixture • solution	
Differentiating Instruction				

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Unit 13-Lesson # 4: "What are mixtures and solutions?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-577J-577K* *Grammar-Nouns and Verbs* - TE-615 *Understanding a Pun* - TE-616 *Understanding Multi-Meaning Word "Composition"* - TE-619	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-614, 620* *Make Connections – Easy – TE-626A "Mix Paint" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-614, 620* *Make Connections – Challenging – TE-626A "Health and Physical Education" activity* *Make Connections – Challenging – TE-626A "Soil Composition" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13-Lesson # 5: "What affects the speed of dissolving?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Experiment to determine how temperature, stirring, and particle size affect the rate at which substances dissolve.	5.P.13.5.1	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 67 (What Affects the Speed of Dissolving?) along with Lesson Inquiry – SE-627-628
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 13-Lesson 5 Quiz AG-139

Key Words:	• atoms • changes in matter • states of matter	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 13-Lesson # 5: "What affects the speed of dissolving?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-577J-577K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-628A)* "Shake Instead of Stir" activity *Differentiated Inquiry-Easy (TE-628A)* "Dissolve Sugar" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-628A)* "Find Out How Much Will Dissolve" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 13-Lesson # 6: "What is the atomic theory?"

Objectives	Standards	Activity	Suggested Time	Suggested Materials
SWBAT: • Explain that matter is made of atoms and describe the structure of an atom. • Identify some elements and describe how elements differ from one another. • Compare an element to a compound.	5.P.13.6.1 5.P.13.6.2 5.P.13.6.3	Engage/Explore	25-40 minutes	• Directed Inquiry – Flipchart Pg. 68 (Model Atoms and Compounds) • Independent Inquiry – Flipchart Pg. 68 (Research is Elemental) • Power Notes presentation • Digital lesson • SE-629
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-630-635
		Extend/Evaluate	10 minutes	• Sum it Up SE-636 • Brain Check SE-637-638 • Unit 13-Lesson 6 Quiz AG-140 • Unit 13 Review – SE-641-644 • Unit 13 Test and Performance Assessment – AG 141-147 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-643

Key Words:	Academic Vocabulary:
• atoms • changes in matter • states of matter	• atom • atomic theory • element • molecule • compound

Differentiating Instruction

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Unit 13-Lesson # 6: "What is the atomic theory?"		
English Language Learners	**Extra Support (Below Grade Level/ Special Ed.)**	**Challenge (Advanced Learners)**
Differentiated Instruction-English Language Learners – TE-577J-577K *Understand Word Structure of "Indivisible"* - TE-631 *Understand a Pun* - TE-633	*Differentiation–Leveled Questions/Extra Support TE-630, 634* *Make Connections – Easy – TE-638A "Make Natural Dyes" activity*	*Differentiation–Leveled Questions/ Challenge TE-630, 634* *Make Connections – Challenging – TE-4638A "Examine an Alkane" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 14: "Light and Sound"
(13 instructional days)

"Big Idea": Sound and light are forms of energy that are carried in waves.

Essential Questions of Unit 14:

- What is sound?
- How does sound travel through solids, liquids, and gases?
- What is light?
- What are some properties of light?
- What happens when light is reflected?

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Unit 14-Lesson # 1: "What is sound?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Recognize that sound travels in waves. • Understand that sound is transmitted by vibrations through mediums.	5.P.14.1.1 5.P.14.1.2	Engage/Explore	15-30 minutes	• Directed Inquiry – Flipchart Pg. 69 (Good Vibrations) • Independent Inquiry – Flipchart Pg. 69 (Thick or Thin) • Power Notes presentation • Digital lesson • SE-647
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-648-657
		Extend/Evaluate	10 minutes	• Sum it Up SE-658 • Brain Check SE-659-662 • Unit 14-Lesson 1 Quiz AG-148

Key Words:	• light • sound	**Academic Vocabulary:**	• wave • pitch • frequency • volume • wavelength • amplitude
Differentiating Instruction			

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Unit 14-Lesson # 1: "What is sound?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-645L-645M* *Understanding Meaning* - TE-648 *English Language Learners* - TE-653 *Word Forms* - TE-433	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-649, 650, 652, 654, 657* *Make Connections – Easy – TE-662A "Demonstrate Pitch and Volume" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-649, 650, 652, 654, 657* *Make Connections – Challenging – TE-662A "Visualize Sound" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 14-Lesson # 2: "How does sound travel through solids, liquids, and gases?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Describe the differences in a given wave when it passes through different media.	5.P.14.2.1	Engage/Explore	30 minutes	• Guided Inquiry: Flipchart Pg. 70 (How Does Sound Travel Through Solids, Liquids, and Gases?) along with Lesson Inquiry – SE-665-666
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 14-Lesson 2 Quiz AG-149
Key Words:	• light • sound	**Academic Vocabulary:**	• No new vocabulary introduced	
Differentiating Instruction				

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Unit 14-Lesson # 2: "How does sound travel through solids, liquids, and gases?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-645L-645M*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-666A)* "Scratch Instead of Tap" activity *Differentiated Inquiry-Easy (TE-666A)* "Lesson the Amplitude of Vibrations" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-666A)* "Loosen and Tighten the Surface of the Drum" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 14-Lesson # 3: "What is light?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain what light is and how it travels. • Describe the electromagnetic spectrum.	5.P.14.3.1 5.P.14.3.2	Engage/Explore	20-40 minutes	• Directed Inquiry – Flipchart Pg. 71 (Telling Time with the Sun) • Independent Inquiry – Flipchart Pg. 71 (Light Up Your Life) • Power Notes presentation • Digital lesson • SE-667
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-668-673
		Extend/Evaluate	10 minutes	• Sum it Up SE-674 • Brain Check SE-675-676 • Unit 14-Lesson 3 Quiz AG-150
Key Words:	• light • sound	**Academic Vocabulary:**	• light • electromagnetic spectrum	
Differentiating Instruction				

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Unit 14-Lesson # 3: "What is light?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-645L-645M* *English Language Learners* - TE-670, 673	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-668, 671, 672* *Make Connections – Easy – TE-676A "Design a Safety Poster" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-668, 671, 672* *Make Connections – Challenging – TE-676A "Write a Science fiction Story" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 14-Lesson # 4: "What are some properties of light?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Describe the effects of matter on light. • Identify objects that are transparent, translucent, and opaque. • Identify the physical attributes of a convex lens, a concave lens, and a prism and where each is used.	5.P.14.4.1 5.P.14.4.2 5.P.14.4.3	Engage/Explore	10-40 minutes	• Directed Inquiry – Flipchart Pg. 72 (Coins in a Fountain) • Independent Inquiry – Flipchart Pg. 72 (Bending light) • Power Notes presentation • Digital lesson • SE-677
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-678-685
		Extend/Evaluate	10 minutes	• Sum it Up SE-686 • Brain Check SE-687-688 • Unit 14-Lesson 4 Quiz AG-151
Key Words:	• light • sound	**Academic Vocabulary:**	• opaque • transparent • translucent • reflection • prism • refraction	
Differentiating Instruction				

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Unit 14-Lesson # 4: "What are some properties of light?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-645L-645M* *English Language Learners* - TE-678, 683 *Multiple Meaning Words* - TE-680	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-679, 682, 684* *Make Connections – Easy – TE-688A "List Opaque, Transparent, and Translucent Materials and Objects" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-431, 434, 436* *Make Connections – Challenging – TE-688A "Explain a Camera's Settings" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 14-Lesson # 5: "What happens when light is reflected?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Observe how a mirror reflects light. • Measure angles using a protractor.	5.P.14.5.1 5.P.14.5.2	Engage/Explore	30 minutes	• Guided Inquiry: Flipchart Pg. 74 (What Happens When Light is Reflected?) along with Lesson Inquiry – SE-691-692
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 14-Lesson 5 Quiz AG-152 • Unit 14 Review – SE-693-696 • Unit 14 Test and Performance Assessment – AG 153-159 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-695

Key Words:	• light • sound	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 14-Lesson # 5: "What happens when light is reflected?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-645L-645M*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-692A)* "Change the Position of the Pins" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-692A)* "Design an Experiment" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 15: "Forces and Motion"
(11 instructional days)

"Big Idea": Forces interact with objects to produce motion. Motion can be observed, measured, and described.

Essential Questions of Unit 15:

- What are forces?
- How do forces affect motion?
- What are balanced and unbalanced forces?
- What are Newton's Laws?

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Unit 15-Lesson # 1: "What are forces?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Identify some common forces. • Describe how varying the strength of a force affects the motion of an object. • Describe how objects of varying mass are each affected by a similar force. • Compare and contrast balanced and unbalanced forces.	5.P.15.1.1 5.P.15.1.2 5.P.15.1.3 5.P.15.1.4	Engage/Explore	10-20 minutes	• Directed Inquiry – Flipchart Pg. 75 (On a Roll) • Independent Inquiry – Flipchart Pg. 75 (Make it Easier) • Power Notes presentation • Digital lesson • SE-699
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-700-711
		Extend/Evaluate	10 minutes	• Sum it Up SE-712 • Brain Check SE-713-716 • Unit 15-Lesson 1 Quiz AG-160

Key Words:	• forces • motion	**Academic Vocabulary:**	• force • gravity • friction • balanced forces • unbalanced forces
Differentiating Instruction			

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Unit 15-Lesson # 1: "What are forces?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-697J-697K* *Understanding Phrasal Verbs* - TE-700 *Explore the Prefix Un-* - TE-704 *Adverbs with -ly* - TE-708	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-701, 702, 705, 706, 710* *Make Connections – Easy – TE-716A "Analyze Sports" activity* *Make Connections – Easy – TE-716A "Learn About Isaac Newton" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-701, 702, 705, 706, 710* *Make Connections – Challenging – TE-716A "Write an Explanation" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 15-Lesson # 2: "How do forces affect motion?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Experiment to determine how the size of a force affects the motion of an object. • Experiment to determine how the mass of an object affects the object's motion when a force is applied. • Explain why it is necessary to repeat measurements in an investigation.	5.P.15.2.1 5.P.15.2.2 5.P.15.2.3	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 77 (How Do Forces Affect Motion?) along with Lesson Inquiry – SE-719-720
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 14-Lesson 2 Quiz AG-161

Key Words:	• forces • motion	**Academic Vocabulary:**	• No new vocabulary introduced

Differentiating Instruction

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Unit 15-Lesson # 2: "How do forces affect motion?"		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-697J-697K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-720A)* "Identify Variables" activity *Differentiated Inquiry-Easy (TE-720A)* "Analyze Forces" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-720A)* "Predict the Effect of Gravity" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 15-Lesson # 3: "What are balanced and unbalanced forces?				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
This is a "Guided Inquiry" Lesson SWBAT: • Describe balanced and unbalanced forces. • Identify the forces that act on an object you are trying to move, and explain how to measure the force needed to overcome each.	5.P.15.3.1 5.P.15.3.2	Engage/Explore	30-40 minutes	• Guided Inquiry: Flipchart Pg. 78 (What Are Balanced and Unbalanced Forces?) along with Lesson Inquiry – SE-721-722
		Explain	10 minutes	• Digital Lesson (Virtual Lab)
		Extend/Evaluate	10 minutes	• Unit 15-Lesson 3 Quiz AG-162

Key Words:	• forces • motion	**Academic Vocabulary:**	• No new vocabulary introduced
Differentiating Instruction			

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Unit 15-Lesson # 3: "What are balanced and unbalanced forces?		
English Language Learners Student Edition Audio (online) *Differentiated Instruction-English Language Learners – TE-697J-697K*	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiated Inquiry-Easy (TE-722A)* "Explore Forces" activity *Differentiated Inquiry-Easy (TE-722A)* "Predict Forces" activity	**Challenge (Advanced Learners)** *Differentiated Inquiry-Challenging (TE-722A)* "Experiment with Static and Sliding Friction" Activity
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		

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Unit 15-Lesson # 4: "What are Newton's Laws?"				
Objectives	**Standards**	**Activity**	**Suggested Time**	**Suggested Materials**
SWBAT: • Explain the laws of motion. • Describe inertia. • Relate motion in space to the lack of gravity in orbit around Earth.	5.P.15.4.1 5.P.15.4.2 5.P.15.4.3	Engage/Explore	15-30 minutes	• Directed Inquiry – Flipchart Pg. 79 (Forces of Loose Change) • Independent Inquiry – Flipchart Pg. 79 (Blast Off!) • Power Notes presentation • Digital lesson • SE-723
		Explain	40-80 minutes	• Power Notes presentation • Digital lesson • SE-724-731
		Extend/Evaluate	10 minutes	• Sum it Up SE-732 • Brain Check SE-733-734 • Unit 15-Lesson 4 Quiz AG-163 • Unit 15 Review – SE-737-740 • Unit 15 Test and Performance Assessment – AG 164-170 (includes Long Option Performance Assessment) • Short Option Performance Assessment – TE-739
Key Words:	• forces • motion	**Academic Vocabulary:**	• inertia	
Differentiating Instruction				

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Unit 15-Lesson # 4: "What are Newton's Laws?"		
English Language Learners *Differentiated Instruction-English Language Learners – TE-697J-697K* *Scientific Meanings* - TE-724 *Reaction* - TE-729	**Extra Support (Below Grade Level/ Special Ed.)** *Differentiation–Leveled Questions/Extra Support TE-726, 728, 730* *Make Connections – Easy – TE-734A "Draw and Label Forces" activity*	**Challenge (Advanced Learners)** *Differentiation–Leveled Questions/ Challenge TE-726, 728, 730* *Make Connections – Challenging – TE-734A "Analyze Forces and Motion in Sound" activity*
Other Resources for Below Grade Level • Extra Support for Vocabulary and Content (online) • Student Edition with Audio • Leveled Readers		