## SUGGESTED PACING STRAND: PHYSICAL SCIENCE (PS) Topic: Matter and Forms of Energy This topic focuses on the relationship between matter and energy. Matter has specific properties and is found in all substances on Earth. Heat is a familiar form of energy that can change the states of matter. **Content Statements:** Heat, electrical energy, light, sound and magnetic energy are forms of energy. ٠ There are many different forms of energy. Energy is the ability to cause motion or create change. PRINT RESOURCES DIGITAL RESOURCES ScienceFusion ScienceFusion Unit 5. Lesson 2 Unit 5, Lesson 2 Digital Lesson with Virtual Lab • Unit 5, TE pages 221A-222A Unit 6, Lesson 1 Digital Lesson Unit 5, Inquiry Flip Chart page 31 • Unit 6, Lesson 2 Digital Lesson • Unit 6, Lesson 3 Digital Lesson with Virtual Lab • Unit 6, All Lessons • Unit 6, TE pages 303A-314A • Unit 6, Lesson 4 Digital Lesson • Unit 6, Inquiry Flip Chart page 42 Unit 6, Lesson 5 Digital Lesson • Science and Engineering Leveled Readers: Unit 6, Lesson 6 Digital Lesson with Virtual Lab On-Level/Below Level: What Are Some Forms of Energy? • Above Level: Which Instrument Will She Play? SCIENCE AND ACADEMIC VOCABULARY

Absorb, Electrical energy, Energy, Heat, Kinetic energy, Mechanical energy, Pitch, Potential energy, Reflect, Refract, Shadow, Sound, Temperature, Vibrate

DIFFERENTIATION	FIELD EXPERIENCE CONNECTIONS
<ul> <li>Basic (Extra Support)</li> <li>Unit 5 Response to Intervention - TE page 205K</li> <li>Unit 6 Response to Intervention - TE page 261K</li> <li>Unit 6 TE pages 264, 268, 279, 281, 293, 296, 308, 37</li> <li>Advanced (Enrichment)</li> <li>Unit 6 TE pages 264, 268, 279, 281, 293, 296, 308, 37</li> <li>Unit 6 TE pages 264, 268, 279, 281, 293, 296, 308, 37</li> <li>Unit 6 TE pages 264, 268, 279, 281, 293, 296, 308, 37</li> <li>Unit 6 STEM - Flipchart page 40, TE pages 261F, 289</li> <li>English Language Learners</li> <li>Unit 5 TE pages 205L-205M</li> <li>Unit 6 TE pages 261L-261M, 266, 269, 280, 282, 294, 306, 310</li> </ul>	11 11 -290B 297, 298,
INQUIRY SKILLS	
Compare     Infer	Plan and Conduct a Simple Investigation

- Draw Conclusions
- Measure
- Gather and Record Data
- Observe

- Predict

## HANDS-ON INQUIRY AND APPLICATION

- "How Can We Measure Magnetism?" (Flipchart page 31, TE pages 205E, 221A-222)
- "Energy in Motion" (Flipchart page 37, TE pages 261D, 263A)
- "Make It Move" (Flipchart page 37, TE pages 261D, 263A)
- "See Changes in Vibration" (Flipchart page 38, 261E, 275A)
- "Change the Sound" (Flipchart page 38, TE pages 261E, 275A)
- "How Are Sounds Changed?" (Flipchart page 39, TE 261F, 287A-288)
- "Explore How Light Travels" (Flipchart page 41, TE 261G, 291A)
- "Refraction" (Flipchart page 41, TE 261G, 291A)
- "Heat Race" (Flipchart page 42, TE pages 261H, 303A)
- "Where There's Light..." (Flipchart page 42, TE pages 261H, 303A)
- "Where Can Heat Come From?" (Flipchart page 43, TE pages 2611, 315A-316)

HANDS-ON INQUIRY AND APPLICATION cont.		
<ul> <li>Differentiated Inquiry</li> <li>Unit 5, TE page 222A <ul> <li>Check Your Results (Easy)</li> <li>Test and Measure the Magnetism of an Electromagnet (Average)</li> <li>Measure Magnetism a Different Way (Average)</li> <li>Increase the Strength of an Electromagnet (Challenging)</li> </ul> </li> <li>Unit 5, TE page 222A <ul> <li>Unit 5, TE page</li> <li>Play a Wate</li> <li>How Does I</li> <li>(Easy)</li> <li>Make a Stration of the strength of an Electromagnet (Challenging)</li> </ul> </li> </ul>	<ul> <li>Unit 6, TE page 316A</li> <li>Test Sandpaper (Easy)</li> <li>Make a Prediction (Easy)</li> <li>Reduce Friction (Average)</li> <li>Obtain Objective Results (Challenging)</li> </ul>	
ASSESSMENTS/PROGRESS MONITORING	ASSESSMENT GUIDE	
<ul> <li>Sum it Up <ul> <li>Unit 6, Lesson 1 - SE page 270, TE page 270</li> <li>Unit 6, Lesson 2 - SE page 284, TE page 284</li> <li>Unit 6, Lesson 4 - SE page 300, TE page 300</li> <li>Unit 6, Lesson 5 - SE page 312, TE page 312</li> </ul> </li> <li>Brain Check and Apply Concepts <ul> <li>Unit 6, Lesson 1 - SE pages 271-272, TE pages 271-272</li> <li>Unit 6, Lesson 2 - SE pages 285-286, TE pages 285-286</li> <li>Unit 6, Lesson 4 - SE pages 301-302, TE pages 301-302</li> <li>Unit 6, Lesson 5 - SE pages 313-314, TE pages 313-314</li> </ul> </li> <li>Unit 6 Review - TE pages 317A-320</li> <li>Unit 6 Short Option Performance Assessment - TE page 319</li> </ul>	<ul> <li>Lesson Quiz <ul> <li>Unit 5, Lesson 2 - page AG 51</li> <li>Unit 6, Lesson 1 - page AG 63</li> <li>Unit 6, Lesson 2 - page AG 64</li> <li>Unit 6, Lesson 3 - page AG 65</li> <li>Unit 6, Lesson 4 - page AG 66</li> <li>Unit 6, Lesson 5 - page AG 67</li> <li>Unit 6, Lesson 6 - page AG 68</li> </ul> </li> <li>Unit 6 Test and Performance Task with Long Option Rubric - pages AG 69-AG 75</li> </ul>	
ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: ELA		
<ul> <li>Journeys</li> <li>Writing Connection - TE page 267</li> <li>Make Connections - TE page 272A <ul> <li>Language Arts Connection - Write a Summary (Average)</li> </ul> </li> <li>Writing Connection - TE page 274</li> <li>Writing Connections - TE page 276</li> <li>Make Connections - TE page 286A <ul> <li>Language Arts Connection - Write an Eyewitness Account (Average)</li> </ul> </li> <li>Writing Connection - TE page 299</li> <li>Writing Connection - TE page 309</li> <li>Make Connections - TE page 314A <ul> <li>Language Arts Connection - Investigate "Hot" Expressions (Average)</li> </ul> </li> </ul>	Journeys Connections Lesson 27 • Whole Group - Anchor Text - The Power of Magnets (T67) • Whole Group - Photo Essay - Electromagnets & You (T71) erage)	
<ul> <li>Math Expressions</li> <li>Math Connection - TE page 265</li> <li>Math Expressions Connections: <ul> <li>Unit 3 Lesson 11: Read and Create Pictographs and Bar Grapl</li> <li>Unit 3 Lesson 12: Read and Create Bar Graphs with Multidigit</li> </ul> </li> <li>Make Connections - TE page 272A</li> <li>Math Connection - Use Multiplication Properties (Easy)</li> <li>Math Expressions Connections: <ul> <li>Unit 1 Lesson 3: Multiplication and Arrays MX TE pages 22, 27</li> <li>Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page</li> <li>Unit 1 Lesson 15: Multiply and Divide with 1 and 0 MX TE page</li> <li>Math Connection - TE page 278</li> </ul> </li> <li>Math Expressions Connections: <ul> <li>Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page</li> <li>Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page</li> <li>Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page</li> <li>Unit 1 Lesson 14: Building Fluency with 2s, 3s, 4s, 5s, 9s, and</li> <li>Unit 1 Lesson 16: Solve and Create Word Problems MX TE page</li> <li>Unit 1 Lesson 18: Building Fluency with 0s 1s 2s 3s 4s 5s 4s 5s</li> </ul> </li> </ul>	ns MX TE pages 372-378 Numbers MX TE pages 382-386 59 6 137-138, 141 60 TE page 85 10s MX TE pages 85-86 ges 147-148 35 and 10s MX TE pages 159-160	

## ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: MATH cont.

Math Expressions cont.

- Math Expressions Connections: cont.
  - Unit 2 Lesson 4: Write Word Problems and Equations MX TE pages 204-208
  - Unit 2 Lesson 7: Practice with 6s, 7s, and 8s MX TE page 230
  - Unit 4 Lesson 3: Place Value in Word Problems MX TE pages 432-434
  - Unit 4 Lesson 4: Practice with Place Value MX TE page 439
  - o Unit 5 Lesson 2: Word Problems with Unknown Addends or Unknown Factors MX TE pages 568-572
- Make Connections TE page 286A
- Math Connection Graph Decibels (Challenging)
- Math Expressions Connections:
  - Unit 3 Lesson 11: Read and Create Pictographs and Bar Graphs MX TE pages 372-378
  - Unit 3 Lesson 12: Read and Create Bar Graphs with Multidigit Numbers MX TE pages 382-386
- Math Connection TE page 329
- *Math* Expressions *Connections:* 
  - o Unit 1 Lesson 2: Multiplication as Equal Groups MX TE pages 13-15
  - Unit 1 Lesson 6: Building Fluency with 2s and 5s TE page 60
  - Unit 1 Lesson 9: Building Fluency with 2s, 5s, 9s, and 10s MX TE page 85
  - o Unit 1 Lesson 14: Building Fluency with 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 85-86
  - Unit 1 Lesson 16: Solve and Create Word Problems MX TE pages 147-148
  - Unit 1 Lesson 18: Building Fluency with 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 159-160
  - Unit 2 Lesson 4: Write Word Problems and Equations MX TE pages 204-208
  - Unit 2 Lesson 7: Practice with 6s, 7s, and 8s MX TE page 230
  - Unit 3 Lesson 10: Solve Word Problems Involving Time MX TE pages 367-368
  - Unit 3 Lesson 14: Use Graphs to Solve Time and Measurement Word Problems MX TE pages 396-398
  - o Unit 4 Lesson 3: Place Value in Word Problems MX TE pages 432-434
  - Unit 4 Lesson 4: Practice with Place Value MX TE page 439
  - Unit 4 Lesson 8: Discuss Addition Methods MX TE page 468
  - Unit 4 Lesson 9: The Grouping Concept in Addition MX TE page 478
  - Unit 4 Lesson 17: Solve Word Problems MX TE pages 538-542
  - Unit 5 Lesson 1: Addition and Subtraction Situations MX TE pages 556-561
  - o Unit 5 Lesson 2: Word Problems with Unknown Addends or Unknown Factors MX TE pages 568-572
  - Unit 5 Lesson 3: Word Problems with Unknown Starts MX TE pages 576-580
  - Unit 5 Lesson 4: Comparison Problems MX TE pages 587-594
  - Unit 5 Lesson 5: Comparison Problems with Misleading Language MX TE pages 598-600
  - Unit 5 Lesson 6: Word Problems with Extra, Hidden, and Not Enough Information MX TE pages 604-608
- Make Connections TE page 302A
- Math Connection Calculate Apparent Size (Average)
- Math Expressions Connections:
  - Unit 1 Lesson 2: Multiplication as Equal Groups MX TE pages 13-15
  - Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page 60
  - Unit 1 Lesson 9: Building Fluency with 2s, 5s, 9s, and 10s MX TE page 85
  - o Unit 1 Lesson 14: Building Fluency with 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 85-86
  - Unit 1 Lesson 16: Solve and Create Word Problems MX TE pages 147-148
  - Unit 1 Lesson 18: Building Fluency with 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 159-160
  - Unit 2 Lesson 4: Write Word Problems and Equations MX TE pages 204-208
  - Unit 2 Lesson 7: Practice with 6s, 7s, and 8s MX TE page 230
  - Unit 4 Lesson 3: Place Value in Word Problems MX TE pages 432-434
  - Unit 4 Lesson 4: Practice with Place Value MX TE page 439
  - Unit 4 Lesson 17: Solve Word Problems MX TE pages 538-542
  - Unit 5 Lesson 2: Word Problems with Unknown Addends or Unknown Factors MX TE pages 568-572
  - Unit 5 Lesson 3: Word Problems with Unknown Starts MX TE pages 576-580
- Math Connection TE page 305
- Math Expressions Connections: cont.
  - Unit 4 Lesson 1: Make Place Value Drawings MX TE page 420
  - Unit 5 Lesson 4: Comparison Problems MX TE pages 584-586

## ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: MATH cont.

Math Expressions cont.

- Make Connections TE page 314A
- Math Connection Calculate Temperature Change (Easy)
- Math Expressions Connections: cont.
  - Unit 2 Lesson 4: Write Word Problems and Equations MX TE pages 204-208
  - Unit 2 Lesson 7: Practice with 6s, 7s, and 8s MX TE page 230
  - Unit 3 Lesson 10: Solve Word Problems Involving Time MX TE pages 367-368
  - o Unit 3 Lesson 14: Use Graphs to Solve Time and Measurement Word Problems MX TE pages 396-398
  - o Unit 4 Lesson 3: Place Value in Word Problems MX TE pages 432-434
  - Unit 4 Lesson 4: Practice with Place Value MX TE page 439
  - Unit 4 Lesson 8: Discuss Addition Methods MX TE page 468
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  - Unit 5 Lesson 3: Word Problems with Unknown Starts MX TE pages 576-580
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  - Unit 5 Lesson 5: Comparison Problems with Misleading Language MX TE pages 598-600
  - Unit 5 Lesson 6: Word Problems with Extra, Hidden, and Not Enough Information MX TE pages 604-608