

GRADE TOPICS

S.3-5.ES.1

Level 3 Ch. 8.1, 8.2, 8.3  
Level 5 Ch. 8.1, 8.3

Level 3- Measuring Pressure SE 241/SJ 26, TT 26;  
Comparing Results TE 241/SJ 26, TT 26;  
Temperature Changes SE 249/SJ 28; C  
Weather Factors TE 249/SJ 30, EAL 25  
Measuring Wind Direction TE 253/SJ 32  
Level 5- Observing Air Pressure SE 243/SJ 26;  
Pressure in Other Locations TE 243/SJ 26;  
Cloud Cover and Weather SE 262/SJ 18;  
Fronts and the Weather TE 262/SJ 18; I

S.3-5.ES.4

Level 3 **Ch. 7.1**  
Level 4 **Ch. 7.1**

Level 3- **TT 212, ATBD**  
Level 4- **TT 220, LA 225, ATBD**

S.3-5.ES.5

Level 3 **Ch. 7.1, Ch. 8.2**  
Level 4 **Ch. 7.1, 7.3**

# 3-5

## Earth and Human Activity

S.3-5.ES.7	Make a claim about the merit of a design solution that reduces the impacts of natural Earth processes (e.g., earthquakes or tsunamis) on humans. (4-ESS3-1)	Level 3 Ch. 8.2 Level 5 Ch. 8.3	Level 3- ATBD Level 5- ATBD
S.3-5.ES.8	Obtain and combine information to describe that energy and fuels are natural resources (e.g., wind energy, water behind dams, sunlight, fossil fuels) and their uses affect the environment (e.g., loss of habitats, dams, surface mining, air pollution). (4-ESS3-1)	Level 3 Ch. 3.4, 3.5 Level 4 Ch. 3.4, Ch. 8.1, 8.3 Level 5 Ch. 10.3, 10.4	Level 3- Water Monitor TE 107/SJ 54; Connecting to Resources SE 113/SJ 56 Inside TE 113/SJ 58; Pollution in the Air TE 117/SJ 60, EAL 119, EAL 120 Level 4- The Game of Life SE 109/SJ 56 Locally Threatened Species TE 109/SJ 112 Level 5- Modeling Global Warming with Terrarium SJ 91; ATBD
S.3-5.ES.9	Generate and compare multiple solutions (e.g., Earthquake resistant buildings, monitoring volcanic activity) to reduce the impacts of natural Earth processes on humans. (4-ESS3-2)	Level 4 Ch. 7.2, 7.3	Level 4- Stand Up to Earthquakes SE 244; A Strong Up to Earthquakes TE 228/SJ 20 Mudflow in a Jar TE 245/SJ 20
S.3-5.ES.10	Obtain and combine information about ways individual communities use science and engineering to protect the Earth's resources and environment. (5-ESS3-1)	Level 3 Ch. 3.5 Level 4 Ch. 8.3 Level 5 Ch. 10.2, 10.3, 10.4	Level 3- TT 112; Connecting to Resources SE 113; Pollution in the Air TE 117/SJ 60, EAL 120 Level 4- TT 280; Cookie Mining SE 280; Restoring the Land TE 280/SJ 44, EAL 340 Level 5- From Land to Ocean SE 332/SJ 70; Pollutants in Water TE 332/SJ 70; Runoff Pollution TE 334/SJ 72; Water Underground TE 337/SJ 76; Polluting Aquifers TE 337/SJ 76; EAL 341; Native vs Non-native SE 344/SJ 82; Green Gardening TE 344/SJ 82, LA 346

S.3-5.ES.11	Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. (4-ESS1-1)	Level 4 Ch.7.1, 7.2, 7.4, Ch. 8.2	Level 4 TT 262; Changing a Rock SE 273/SJ 38; TT 272; Fossil Layers SE 273/SJ 38; Fossil Dig TE 273/SJ 40, EAL 275
S.3-5.ES.12	Make observations at different times of year to relate the amount of daylight to the time of year. (1-ESS1-2)	Level 4 Ch. 9.4	Level 4- ATBD
S.3-5.ES.13	Represent data in graphical displays to reveal patterns of daily change in temperature and direct sunlight. (5-ESS1-3)	Level 3 Ch. 8.3, Ch. 9.2, 9.3 Level 4 Ch. 9.2 Level 5 Ch. 8.4	Level 3- EAL 265; TT 280; The Growing Shrinkin' Shadow SE 281/SJ 44; Shiftin' Shadows TE 281/SJ 46, EAL 283; Seas Earth TE 284/SJ 48; Now I See It, Now I Don't SE 289/SJ 50, A Lunar Eclipse TE 289/SJ 51; Map SJ 64 Level 4- Make a Sundial TE 295/SJ 52; Map SJ 64 Level 5- ATBD

Essential Question: How has God equipped humans to apply their knowledge of science to solve problems for the benefit of His Creation?

Big Idea: God designed humans to wonder, question, and develop an attitude of inquiry as scientific principles are applied to the materials and forces of nature for the benefit of His Creation.

S.3-5.ET.1			
S.3-5.ET.2	Generate and compare multiple possible solutions to a problem based on criteria and constraints of the problem (3-5-ETS1-2)		Level 3- ATBD Level 4- ATBD Level 5- ATBD
S.3-5.ET.3			

S.3-5.HS.1

Level 3 Ch. 4.1, 4.2, Ch. 5.3  
Ch. 6.2, 6.3

Level 4 Ch. 4.2, 4.3, Ch. 5.3

Level 5 Ch. 7.1, 7.2, 7.3

Level 3- How Can Food Help Me Stay Healthy SE 127/SJ 2; Staying Healthy TE 127/SJ 6, TT 127/SJ 7; Testing Sunscreens SE 131/SJ 8; UV Filtering SE 131/SJ 10; Hand Washing and Drying TE 131/SJ 11, LA 135, TT 140; Bacteria Gardens SE 141/SJ 17, LA 144; Cleaning the Gardens TE 141/SJ 18, LA 144; Getting Stronger TE 162/SJ 30, TT 172; Keep Your Heart Healthy SE 173/SJ 36, EAL 175; Measuring Heart Rate SE 192/SJ 46; Cool Down TE 192/SJ 48; Aerobic Heart TE 193/SJ 50, LA 202; ABTD

Level 4- Balanced Diet SE 137/SJ 4; Greasy Food SE 137/SJ 14, LA 139; Exercise Journal SE 137/SJ 16, LA 142, L 143; ATBD

Level 5- How Can I Make Healthy Food Choices SE 159/SJ 1; Spreading Disease SE 205/SJ 51, L 205, TT 205



S.3-5.LS.1

Level 3 Ch. 1.3, Ch. 2.1, 2.2  
Level 4 Ch. 1.4  
Level 5 Ch. 1.3, Ch. 5.1, 5.2,  
Ch. 6.1, 6.2

Level 3- ATBD  
Level 4- ATBD Q 944  
Level 5- ATBD

S.3-5.LS.2

Level 3 Ch. 2.1, Ch. 5.1, Ch.  
Level 4 Ch. 1.1, 1.3, 1.4, Ch. 2.2  
Level 5 Ch. 3.1, 3.2, 3.3, 3.4,  
4.3, Ch. 5.2, 5.3, Ch. 6.1, 6.2

Level 3- ATBD  
Level 4- ATBD  
Level 5- ATBD

S.3-5.LS.3

Level 4 Ch. 4.1, Ch. 5.2

Level 4- ATBD

S.3-5.LS.4

Level 3 Ch., 2.1, Ch. 2.3  
Level 4 Ch. 1.1

Level 3- ATBD  
Level 4- ATBD

S.3-5.LS.5

Level 4 Ch. 2.2, Ch. 3.2  
Level 5 Ch. 3.3, Ch. 4.1, 4.3

Level 4- ATBD Q  
Level 5- ATBD

S.3-5.LS.6

Level 3 Ch. 3.1  
Level 4 Ch. 3.1, 3.2, 3.3, 3.4  
Level 5 Ch. 4.1, 4.2, 4.3

Level 3- ATBD  
Level 4- ATBD  
Level 5- ATBD

S.3-5.LS.7

Level 3 Ch. 1.1, 1.3, Ch. 2.2

S.3-5.LS.9

Level 4 Ch. 8.2

Level 4- ATBD

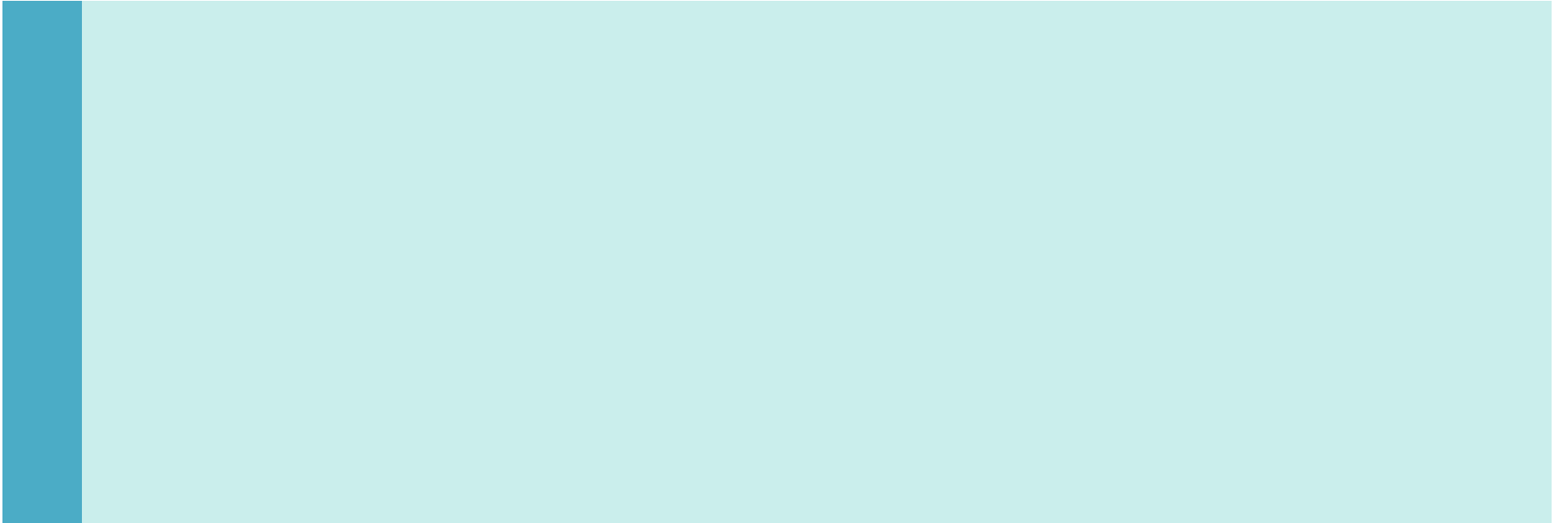
S.3-5.LS.10

Level 4 Ch. 2.1, 2.2

Level 4- ATBD

Level 5 Ch. 3.1, 3.2, 3.3







3-5

Energy

<p>S.3-5.PS.10 Use evidence to construct an explanation relating the speed of an object to the energy of that object. (4-PS3-1)</p>	<p>Level 3 Ch. 10.1, 10.3, Ch. 11.2 Level 4 Ch. 10.2 Level 5 Ch. 13.2, 13.3</p>	<p>Level 3- Models of Particles in a Liquid, Solid and a Gas SE 305/SJ 8; Vibrating SE 321/SJ 16; Vibrating Strings TE 321/EAL 331, EAL 333; Racing Speed SE 328, EAL 342, EAL 348, EAL 358 Level 4- ATBD Level 5- Comparing Motion SE 435/SJ 4; Motion and Mass TE 435/SJ 60; Force, and Acceleration SE 441/SJ 62; Increased Mass TE 441/SJ 64, EAL 448</p>
<p>S.3-5.PS.11 Make observations to provide evidence that energy can be transferred from one place by sound, light, heat, and electric currents. (4-PS3-2)</p>	<p>Level 3 Ch. 10.2, 10.3, 10.4 Level 4 Ch. 11.2 Level 5 Ch. 11.2, 11.3, Ch. 12.3</p>	<p>Level 3- Transfer of Thermal Energy SE 313/SJ 12; Bring on the Heat TE 313/SJ 16, EAL 316, EAL 318; Vibrating Confetti SE 321/SJ 16; Vibrating Strings TE 321/SJ 322; How Waves Move SE 329/SJ 20 Level 4- Melting and Boiling SE 339/SJ 376; ATBD Level 5- Sand Shaker SE 366/SJ 12, EAL 369; Light Bulb Energy SE 370/SJ 16; Light Changes in Pitch and Loudness SE 376; Rubber Band Thickness and Pitch TE 372; Build a Wave Machine SE 390/SJ 3; Waves TE 390/SJ 34, EAL 397</p>
<p>S.3-5.PS.12 Ask questions and predict outcomes about the changes in energy that occur when objects collide. (4-PS3-3)</p>	<p>Level 3 Ch. 11.2 Level 5 Ch. 13.2, 13.3</p>	<p>Level 3- EAL 358 Level 5- EAL 434, EAL 446; ATBD</p>
<p>S.3-5.PS.13 Apply scientific principles to design, test, and refine a device (e.g., electromagnet, solar heater) that converts energy from one form to another. (PS3-4)</p>	<p>Level 3 Ch. 10.2, 10.3 Level 4 Ch. 11.2, 11.3 Level 5 Ch. 14.2, 14.3</p>	<p>Level 3- Solar Cooker SJ 44 Level 4- Make an Electromagnet SE 384; Building an Electric Motor SJ 50 Level 5- Simple to Complex SE 473/SJ 4; Design a Machine TE 473/SJ 90, EAL 473, EAL 100</p>

