Pacing Guide – 1st Grade Harcourt Science

The expectation is at least 30 min. 2 x week

Approx week	Topics	Grade Level Indicators	ELA Focus	Days to Teach
1.	**Ready, Set, Science** How Do we Use Our Senses? Page 1 - 7	SI-1 Inter/Predict; 1. Ask "what happens when" questions. SI-3 Use safety procedures; 3. Use appropriate safety procedures when completing scientific investigations. SWOK-1 Discover that when a science investigation is done the same way multiple times, one can expect to get very similar results each time it is performed.	**Main Idea /details** IT-1, IT-4, RP-6, WP-6, C-3	2
2.	**Ready, Set, Science!** How Do We Use Inquiry Skills? pp. 8 - 17	SI-1 Inter/Predict; 1. Ask "what happens when" questions. SI-2 Explore and pursue student-generated "what happens when" questions. SI-4 Work in a small group to complete an investigation and then share findings with others. SI-5 Create individual conclusions about group findings. SI-6 Use appropriate tools and Simple equipment/instruments to safely gather scientific data (e.g..., magnifiers, timers, simple balances, and other appropriate tools.)	**Main Idea/details** IT-4 **Math** PFA-1	2
3.	**Ready, Set, Science!** How do we Use Science Tools? pp. 18 - 23	SI-6 Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, timers, simple balances, and other appropriate tools). SI-7. Make estimates to compare familiar lengths, weights and time intervals.	**Main idea /details** IT-4, C-4	3
5.	**Earth & Space Science** **<u>Chapter 1</u>** *Lesson 1:* What Are Natural Resources? pp. 30 – 35	ES-1 Identify that resources are things that we get from the living (e.g., forest) and nonliving (e.g., minerals, water) environment and that resources are necessary to meet the needs and wants of a population. SI-4 Work in a small group to complete an investigation and then share findings with others. SI-8 Use oral, written and pictorial representation to communicate work . SI-9 Describe things as accurately as possible and compare with the observations of others.	**Main idea /Details** AV-1, IT-4, WP-4	2
6.	**Earth & Space Science** *Lesson 2:* How Can We Protect Natural Resources? pp. 36 – 43	ES-2 Explain that the supply of many resources is limited but the supply can be extended through careful use, decreased use, reusing and/or recycling. SI-5 Create individual conclusions about group findings. ST-3 Identify some materials that can be saved for community recycling projects (e.g., newspapers, glass and aluminum).	**Cause/Effect** AV-1, RP-1, WA-3	2

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Earth and Space Science – ESS
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7.	**Earth & Space Science** *Lesson 3:* How Is Earth Changed? pp. 44 – 49	ES-3 Explain that all organisms cause changes in the environment where they live; the changes can be very noticeable or slightly noticeable, fast or slow (e.g., spread of grass cover slowing soil erosion, tree roots slowly breaking sidewalks). SI-8 Use oral, written and pictorial representation to communicate work.	**Cause/Effect** AV-1, IT-1, WP-6	2
8.	**Earth & Space Science** ***End of Chapter*** pp. 50 - 55	ES-1 Identify that resources are things that we get from the living (e.g., forests) & nonliving (e.g., minerals, water) environment and that resources are necessary to meet the needs and wants of a population. ES-2 Explain that the supply of many resources is limited but the supply can be extended through careful use, decreased use, reusing and/or recycling. PS-2 Investigate that water can change from liquid to solid or solid to liquid. ST-3 Identify materials that can be saved for community recycling projects (e.g., newspapers, glass & aluminum).	**Main Idea/details** IT-1, IT-4, AV-1	1
9.	**Life Science** **<u>Chapter 2</u>** *Lesson 1:* What Are Living and Nonliving Things? pp. 68 – 73	SL-1 Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter. SI-6 Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, timers and simple balances and other appropriate tools).	**Compare & Contrast** AV-1, RP-5, IT-1, IT-5 WP-10, WA-1, C-10	2
10.	**Life Science** *Lesson 2:* What Do Animals Need: pp. 80 – 85	LS-1 Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter. SWOK-2 Demonstrate good explanations based on evidence from investigations and observations.	**Main idea/detail** IT-1, IT-4, AV-1, WA-1 **Math 104**	2
11.	**Life Science** *Lesson 3:* What Do Plants Need? pp. 80 – 85	LS-1 Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter. SI-1 Ask "what happens when" questions.	**Cause/effect** IT-1, IT-4, AV-1, C-3	2

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12.	**Life Science** ***End of Chapter*** pp. 86 – 91 Weekly Reader Leveled Readers Review/Reteach 86 – 88	LS-1 Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter.	IT-1, IT-4, AV-1, WA-1, C-10	2
13.	**Life Science** **Chapter 3** *Lesson 1:* How Do Living Things Get What They Need? pp. 94 – 99	LS-2 Explain that food comes from sources other than grocery stores (e.g., farm crops, farm animals, oceans, lakes and forests). LS-3 Explore that humans and other animals have body parts that help to seek, find and take in food when they are hungry (e.g., sharp teeth, flat teeth, good nose and sharp vision). SI-5 Create individual conclusions about group findings.	**Main Idea & Detail** IT-1, IT-4, AV-1, IT-3, RP-6 **Writing Process** WP-6, WA-1	2
14.	**Life Science** *Lesson 2:* How Do Plants and Animals Need Each Other? pp. 100 – 107	LS-4 Investigate that animals eat plants and/or other animals for food and may also use plants or other animals for shelter and nesting. SI-6 Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, timers and simple balances and other appropriate tools).	**Main Idea & Details** RP-6, IT-4 AV-1, IT-1, IT-3 WA-1	2
15.	**Life Science** End of Chapter pp. 108 – 113 Weekly Reader Leveled Readers	LS-1 Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter. LS-4 Investigate that animals eat plants and/or other animals for food and may also use plants or other animals for shelter and nesting. LS-5 Recognize that seasonal changes can influence the health, survival or activities of organisms. ST-1 Explore that some kinds of materials are better suited than others for making something new (e.g., the building materials used in the *Three Little Pigs*).	IT-1, IT-3, AV-1	2
16.	**Life Science** **Chapter 4** *Lesson 1:* What Is Spring? pp. 116 – 123	LS-5 Recognize that seasonal changes can influence the health, survival or activities of organisms. SI-2 Explore and pursue student-generated "what happens when" questions.	**Main Idea and Details** IT-4, WA-1	2

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17.	**Life Science** *Lesson 2:* What Is Summer? pp. 124 – 129	LS-4 Investigate that animals eat plants and/or other animals for food and may also use plants or other animals for shelter and nesting. SI-6 Use appropriate tools and equipment/instruments to safely gather scientific data (e.g., magnifiers, timers and simple balances and other appropriate tools). SWOK-2 Demonstrate good explanations based on evidence from investigations and observations.	**Main Idea and Details** IT-4, WA-3	2
18.	**Life Science** *Lesson 3:* What is Fall? pp. 130 – 135	LS-5 Recognize that seasonal changes can influence the health, survival or activities of organisms. SI-1 Ask "what happens when' questions. SI-9 Describe and c compare accurately; Describe things as accurately as possible and compare with the observations of others.	**Cause and Effect** IT-4, WP-6, WA-1	2
19.	**Life Science** *Lesson 4:* What is Winter: pp. 136 – 141	LS-5 Recognize that seasonal changes can influence the health, survival or activities of organisms. SI-8 Use oral, written and pictorial representation to communicate work. SWOK-2 Demonstrate good explanation; Demonstrate good explanations based on evidence from investigations and observations.	**Main Idea and Details** IT-1, IT-4	2
20.	**Life Science** ***End of Chapter*** pp. 142 – 147 OH on Location	LS-5 Recognize that seasonal changes can influence the health, survival or activities of organisms. ST-1 Explore that some kinds of materials are better suited than others for making something new (e.g., the building materials used in the *Three Little Pigs*). SI-8 Use oral, written and pictorial representation to communicate work. SWOK-3 Explain that everybody can do science, invent things and have scientific ideas no matter where they live.	IT-3, IT-4	2
21.	**Physical Science** **Chapter 5** *Lesson 1:* How Can We Classify Matter? pp. 160- 167	PS-1 Classify objects according to the materials they are made of and their physical properties.	**Compare and Contrast** RP-1	2
22.	**Physical Science** *Lesson 2:* How Can Matter Change? pp. 168 – 175	PS-3. Explore and observe that things can be done to materials to change their properties (e.g., heating, freezing, mixing, cutting, wetting, dissolving. PS-4 Explore changes that greatly change the properties of an object (e.g., burning paper) and changes that leave the properties largely unchanged (e.g., tearing paper). SI-8 Use oral, written and pictorial representation to communicate work.	**Cause and Effect** IT-4	2

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23.	**Physical Science** *Lesson 3:* How Can Water Change? pp. 176- 183	PS-2 Investigate that water can change from liquid to solid or solid to liquid. PS-3 Explore and observe that things can be done to materials to change their properties (e.g., heating, freezing, mixing, cutting, wetting, dissolving. PS-4 Explore changes that greatly change the properties of an object (e.g., burning paper) and changes that leave the properties largely unchanged (e.g., tearing paper). SI-1 Infer/Predict; Ask "what happens when" questions.	**Cause and Effect** IT-4	2
24.	**Physical Science** *Lesson 4:* What Are Some Other Changes to Matter? pp. 184 – 189	PS-4 Explore changes that greatly change the properties of an object (e.g., burning paper) and changes that leave the properties largely unchanged (e.g., tearing paper). SI-5 Create individual conclusions about group findings.	**Cause and Effect** IT-4	2
25.	**Physical Science** ***End of Chapter*** pp. 190 – 195 Weekly Reader Leveled Readers	PS-2 Investigate that water can change from liquid to solid or solid to liquid. PS-3 Explore and observe that things can be done to materials to change their properties (e.g., heating, freezing, mixing, cutting, wetting, dissolving. PS-4 Explore changes that greatly change the properties of an object (e.g., burning paper) and changes that leave the properties largely unchanged (e.g., tearing paper). ST-1. Explore that some kinds of materials are better suited than others for making something new (e.g., the building materials used in the *Three Little Pigs*). SWOK-3 Explain that everybody can do science, invent things and have scientific ideas no matter where they live.	IT-3, IT-4	2
26.	**Physical Science** **Chapter 6** *Lesson 1:* How Do Things Move? pp. 198 – 203	PS-6 Investigate a variety of ways to make things move and what causes them to change speed, direction and/or stop. SI-4 Work in a small group to complete an investigation and then share findings with others. SI-9 Describe things as accurately as possible and compare with the observations of others.	**Compare and Contrast** IT-4	2
27.	**Physical Science** *Lesson 2:* How Can We Change the Way Things Move? pp. 204 – 211	PS-6 Investigate a variety of ways to make things move and what causes them to change speed, direction and/or stop. SI-1 Infer/Predict; Ask "what happens when" questions. SI-2 Explore and pursue student-generated "what happens when" questions. SWOK-1 Discover that when a science investigation is done the same way multiple times, one can expect to get very similar results each time it is performed.	**Cause and Effect** IT-4	2

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28.	**Physical Science** *Lesson 3:* How Does Gravity Make Things Move? pp. 212 – 217	PS-6 Investigate a variety of ways to make things move and what causes them to change speed, direction and/or stop. SI-1 Infer/Predict; Ask "what happens when" questions. SI-8 Use oral, written and pictorial representation to communicate work. SWOK-2 Demonstrate good explanations based on evidence from investigations and observations.	**Cause and Effect** IT-4	2
29.	**Physical Science** *Lesson 4:* How Do Magnets Make Thins Move? pp. 218 – 225	PS-5 Explore the effects some objects have on others even when the two objects might not touch (e.g., magnets). SI-1 Infer/Predict; Ask "what happens when" questions. SI-2 Explore and pursue student-generated "what happens when" questions.	**Main Idea and Details** IT-4	2
30.	**Physical Science** ***End of Chapter*** pp. 226 - 231 Weekly Reader Leveled Readers	PS-5 Explore the effects some objects have on others even when the two objects might not touch (e.g., magnets). PS-6 Investigate a variety of ways to make things move and what causes them to change speed, direction and/or stop. ST-8 Investigate that when parts are put together they can do things that they could not do by themselves (e.g., blocks, gears and wheels).	IT-3, IT-4	2
31.	**Physical Science** **Chapter 7** *Lesson 1:* How Does Energy Make Things Work? pp. 234 -243	PS-7 Explore how energy makes things work (e.g., batteries in a toy and electricity turning fan blades). PS-8 Recognize that the sun is an energy source that warms the land, air and water. PS-9. Describe that energy can be obtained from many sources in many ways (e.g., food, gasoline, electricity or batteries). SI-8 Use oral, written and pictorial representation to communicate work. ST-4 Explore ways people use energy to cook their food and warm their homes (e.g., wood, coal, natural gas and electricity).	**Main Idea/Detail** IT-4	2
32.	**Physical Science** *Lesson 2:* How can we conserve energy? pp. 244 – 249	PS-8 Recognize that the sun is an energy source that warms the land, air and water. ST-5 Identify how people can save energy by turning things off when they are not using them (e.g., lights and motors).	**Main Idea/Detail** IT-4	2

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34.	**Physical Science** *Lesson 3:* Where Do People Get Energy? pp. 250 – 255	PS-9 Describe energy sources; 9. Describe that energy can be obtained from many sources in many ways (e.g., food, gasoline, electricity or batteries). SI-8 Communicate work; 8. Use oral, written and pictorial representation to communicate work. SWOK-2 Demonstrate good explanation; 2. Demonstrate good explanations based on evidence from investigations and observations.	**Cause/Effect** IT-4	2
35.	**Physical Science** ***End of Chapter*** pp. 256 – 261 Leveled Readers Weekly Reader OH Expeditions	PS-7 Explore how energy makes things work (e.g., batteries in a toy and electricity turning fan blades). PS-8 Recognize that the sun is an energy source that warms the land, air and water. PS-9 Describe that energy can be obtained from many sources in many ways (e.g., food, gasoline, electricity or batteries).	AV-1, IT-3, IT-4, IT- 1	2

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