

The following Pacing Guide includes changes you can consider in order to streamline the learning process for each lesson within each unit. However, you are the expert on what will work in your classroom. We’ve included room in this guide for you to customize the recommendations to best suit your needs and schedule. The lesson and class-day interval suggestions provided are based on 30-minute instructional periods. The “Core” instructional pathway is based on two to three 30-minute instructional periods per week, and the “Comprehensive” instructional pathway is based on five 30-minute instructional periods per week.

The curriculum designers have provided helpful tips of what assignments are best suited for the core and comprehensive pathways, enabling you to make these assignments in a way that will assist with adhering to the science schedule in your classroom. Other alterations to the schedule may be made, such as assigning part of the lesson components as homework. “Evidence Notebook” prompts and “Read, Write, Share” and “Do the Math” activities may be assigned for independent work that is completed outside of the Science classroom period. When planning, you are able to choose at your discretion from the many scheduling options.

This tool may be used by those working solely with the Online Interactive Edition, those working solely with the print edition, and those who use a hybrid approach, using pieces of both. The titles shown are referenced in both print and online editions, and the numbers in parentheses correspond to the pages of the print student edition.

	Core (2–3 days/week)	Comprehensive (daily)	Customize Your Pacing Guide
Unit 1: Engineering and Technology			
Unit 1 Project	Optional	3 days (30 minutes each)	
Lesson 1: Engineer It • What Is a Design Process ?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 4–5)	10 minutes	10 minutes	
Alternative Engage Strategy (p. 4)	Optional	10 minutes	
Explore/Explain: What Engineers Do (p. 6)	10 minutes	15 minutes	
Explore/Explain: Step 1—Define a Problem (p. 7)	10 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 7)	10 minutes	10 minutes	
Explore/Explain: Step 2—Plan and Build (p. 8)	10 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 8)	Optional	10 minutes	

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	Hands-On Activity: Engineer It • Build a Better Lunchbox (pp. 9–10)	30 minutes	30 minutes	
	Explore/Explain: Step 3—Test and Improve (p. 11)	10 minutes	10 minutes	
	Apply What You Know • Evidence Notebook (p. 11)	10 minutes	10 minutes	
	Explore/Explain Step 4—Redesign (p. 12)	10 minutes	10 minutes	
	Apply What You Know • Evidence Notebook (p. 12)	Optional	10 minutes	
	Explore/Explain: Step 5—Communicate (p. 13)	10 minutes	10 minutes	
	Apply What You Know • Evidence Notebook (p. 13)	10 minutes	10 minutes	
	Elaborate: Take It Further (p. 14)	Optional	10 minutes	
	Elaborate: Take It Further • Do the Math! (p. 14)	Optional	10 minutes	
	Elaborate: Take It Further (p. 15)	10 minutes	10 minutes	
	Elaborate: Take It Further • Read, Write, Share! (p. 16)	Optional	15 minutes	
	Evaluate: Lesson Check (pp. 17–19)	30 minutes	30 minutes	
	Lesson 2: Engineer It • How Can We Compare Design Solutions?	5 days (30 minutes each)	7 days (30 minutes each)	
	Engage (pp. 20–21)	15 minutes	15 minutes	
	Alternative Engage Strategy (p. 20)	Optional	10 minutes	
	Explore/Explain: One Problem, Many Solutions (p. 22)	15 minutes	15 minutes	
	Apply What You Know (p. 22)	10 minutes	15 minutes	
	Do the Math! (p. 23)	10 minutes	10 minutes	
	Explore/Explain: Build and Test a Solution (p. 24)	15 minutes	15 minutes	
	Apply What You Know (p. 24)	10 minutes	10 minutes	
	Explore/Explain: Compare Design Solutions (p. 25)	15 minutes	15 minutes	
	Apply What You Know • Read, Write, Share! • Evidence Notebook (p. 26)	Optional	20 minutes	
	Hands-On Activity: Engineer It • Compare Strengths and Weakness of Design Solutions (pp. 27–28)	30 minutes	30 minutes	
	Elaborate: Take It Further (p. 29–30)	Optional	25 minutes	
	Evaluate: Lesson Check (pp. 31–33)	30 minutes	30 minutes	
	You Solve It	Optional	1 day (30 minutes)	

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Unit 1 Performance Task (pp. 34–35)	Optional	2 days (30 minutes each)	
Unit 1 Review (pp. 36–38)	1 day (30 minutes)	1 day (30 minutes)	
Unit 1 Test (Assessment Guide)	1 day (30 minutes)	1 day (30 minutes)	
Performance-Based Assessment (Assessment Guide)	Optional	2 days (30 minutes each)	
Total Days for Unit 1:	12	24	

	Core (2–3 days/week)	Comprehensive (daily)	Customize Your Pacing Guide
Unit 2: Matter			
Unit 2 Project	Optional	3 days (30 minutes each)	
Lesson 1: Engineer It • What Are Properties of Matter?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 42–43)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 42)	Optional	5 minutes	
Explore/Explain: Properties of Matter (pp. 44–47)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 47)	Optional	10 minutes	
Explore/Explain: States of Matter—Solids (p. 48)	10 minutes	10 minutes	
Apply What You Know • Evidence Notebook (p. 48)	Optional	5 minutes	
Explore/Explain: States of Matter—Liquids (p. 49)	10 minutes	10 minutes	
Apply What You Know (p. 49)	Optional	10 minutes	
Explore/Explain: States of Matter—Which Materials Are Best? (p. 50)	15 minutes	15 minutes	
Hands-On Activity: Engineer It • Explore Properties of Matter (pp. 51–52)	30 minutes	30 minutes	
Do the Math! (p. 53)	15 minutes	15 minutes	
Evidence Notebook (p. 53)	5 minutes	5 minutes	

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Apply What You Know • Read, Write, Share! (p. 54)	Optional	10 minutes	
Elaborate: Take It Further (pp. 55–56)	Optional	20 minutes	
Evaluate: Lesson Check (pp. 57–59)	30 minutes	30 minutes	
Lesson 2: How Are Objects Put Together?	5 days (30 minutes each)	6 days (30 minutes each)	
Engage (pp. 60–61)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 60)	Optional	10 minutes	
Explore/Explain: Build It Up, Break It Down (pp. 62–63)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 63)	Optional	10 minutes	
Explore/Explain: What Is the Same? (p. 64)	5 minute	5 minutes	
Apply What You Know • Read, Write, Share! • Evidence Notebook (p. 64)	10 minutes	10 minutes	
Hands-On Activity: Build Objects from Smaller Pieces (pp. 65–66)	30 minutes	35 minutes	
Elaborate: Take It Further (pp. 67–68)	30 minutes	30 minutes	
Elaborate: Take It Further • Do the Math! (p. 68)	10 minutes	15 minutes	
Evaluate: Lesson Check (pp. 69–71)	30 minutes	30 minutes	
Lesson 3: How Do Heating and Cooling Change Matter?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 72–73)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 72)	Optional	10 minutes	
Explore/Explain: Melt It (pp. 74–75)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 75)	Optional	5 minutes	
Explore/Explain: Cook It (pp. 76–77)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 77)	Optional	10 minutes	
Explore/Explain: Burn It (p.78)	15 minutes	15 minutes	
Apply What You Know (p. 79)	Optional	10 minutes	
Explore/Explain: Cool It Down (p. 80)	10 minutes	10 minutes	
Do the Math! (p. 80)	Optional	5 minutes	
Apply What You Know • Evidence Notebook (p. 80)	Optional	10 minutes	
Hands-On Activity: Explore Cooling (pp. 81–82)	15 minutes one day; 15 minutes next day	15 minutes one day; 15 minutes next day	
Elaborate: Take It Further (p. 83)	10 minutes	10 minutes	
Elaborate: Take It Further • Read,	Optional	10 minutes	

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Write, Share! (p. 84)			
Evaluate: Lesson Check (pp. 85–87)	30 minutes	30 minutes	
Lesson 4: How Does Matter Change?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 88–89)	10 minutes	15 minutes	
Alternative Engage Strategy (p. 88)	10 minutes	10 minutes	
Explore/Explain: Reversible Changes (pp. 90–91)	20 minutes	25 minutes	
Do the Math! (p. 92)	10 minutes	10 minutes	
Apply What You Know • Read, Write, Share! • Evidence Notebook (p. 92)	10 minutes	15 minutes	
Explore/Explain: Irreversible Changes (p. 93)	20 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 94)	10 minutes	10 minutes	
Hands-On Activity: Explore Changes to Matter (pp. 95–96)	30 minutes	40 minutes	
Elaborate: Take It Further (pp. 97–98)	Optional	30 minutes	
Evaluate: Lesson Check (pp. 99–101)	30 minutes	30 minutes	
You Solve It	Optional	1 day (30 minutes)	
Unit 2 Performance Task (pp. 102–103)	Optional	2 days (30 minutes each)	
Unit 2 Review (pp. 104–106)	1 day (30 minutes)	1 day (30 minutes)	
Unit 2 Test (Assessment Guide)	1 day (30 minutes)	1 day (30 minutes)	
Performance-Based Assessment (Assessment Guide)	Optional	2 days (30 minutes each)	
Total Days for Unit 2:	22	37	

Core (2–3 days/week)	Comprehensive (daily)	Customize Your Pacing Guide
Unit 3: Environments for Living Things		
Unit 3 Project	Optional	3 days (30 minutes each)

Lesson 1: What Do Plants Need?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 110–111)	10 minutes	15 minutes	
Alternative Engage Strategy (p. 110)	10 minutes	15 minutes	
Explore/Explain: What Plants Need (pp. 112–113)	15 minutes	20 minutes	
Apply What You Know • Read, Write, Share! • Evidence Notebook (p. 113)	10 minutes	15 minutes	
Explore/Explain: Taking It In (pp. 114–115)	10 minutes	20 minutes	
Do the Math! (p. 116)	5 minutes	10 minutes	
Apply What You Know • Evidence Notebook (p. 116)	10 minutes	15 minutes	
Hands-On Activity: Explore What a Plant Needs (pp. 117–118)	15 minutes the first day; 15 minutes the second day	20 minutes the first day; 20 minutes the second day	
Elaborate: Take It Further (pp. 119–120)	20 minutes	30 minutes	
Evaluate: Lesson Check (pp. 121–123)	30 minutes	30 minutes	
Lesson 2: Engineer It • How Do Plants Depend on Animals?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 124–125)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 124)	Optional	10 minutes	
Explore/Explain: Animals Help Spread Seeds (pp. 126–127)	20 minutes	25 minutes	
Apply What You Know • Read, Write, Share! (p. 128)	10 minutes	15 minutes	
Hands-On Activity: Engineer It • Plan and Build a Model Tool (pp. 129–130)	30 minutes	40 minutes	
Do the Math! (p. 131)	10 minutes	10 minutes	
Explore/Explain: How Animals Spread Pollen (pp. 133–132)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 134)	10 minutes	10 minutes	
Elaborate: Take It Further (pp. 135–136)	Optional	30 minutes	
Evaluate: Lesson Check (pp. 137–139)	30 minutes	30 minutes	
Lesson 3: What Plants and Animals Live in Water Habitats?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 140–141)	10 minutes	15 minutes	
Alternative Engage Strategy (p. 140)	Optional	10 minutes	
Explore/Explain: Ponds (pp. 142–143)	15 minutes	20 minutes	

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Apply What You Know • Evidence Notebook (p. 143)	10 minutes	10 minutes	
Explore/Explain: River Deltas (pp. 144–145)	15 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 145)	10 minutes	10 minutes	
Explore/Explain: Tide Pools (pp. 146–148)	20 minutes	20 minutes	
Apply What You Know • Read, Write, Share! (p. 148)	10 minutes	15 minutes	
Hands-On Activity: Make Model Habitats (pp. 149–150)	30 minutes	30 minutes	
Elaborate: Take It Further (p. 151)	Optional	15 minutes	
Elaborate: Take It Further • Do the Math! (p. 152)	Optional	15 minutes	
Evaluate: Lesson Check (pp. 153–155)	30 minutes	30 minutes	
Lesson 4: What Plants and Animals Live in Land Habitats?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 156–157)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 156)	Optional	5 minutes	
Explore/Explain: Rain Forest Habitats (pp. 158–160)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 161)	Optional	10 minutes	
Explore/Explain: Forest Habitats (pp. 162–165)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 165)	Optional	5 minutes	
Explore/Explain: Savanna Habitats (pp. 166–169)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 169)	Optional	10 minutes	
Do the Math! (p. 170)	Optional	5 minutes	
Hands-On Activity: Make a Habitat Exhibit (pp. 171–172)	30 minutes	30 minutes	
Elaborate: Take It Further (p. 173)	Optional	10 minutes	
Elaborate: Take It Further • Read, Write, Share! (p. 174)	Optional	15 minutes	
Evaluate: Lesson Check (pp. 175–177)	30 minutes	30 minutes	
You Solve It	Optional	1 day (30 minutes)	
Unit 3 Performance Task (pp. 178–179)	Optional	2 days (30 minutes each)	
Unit 3 Review (pp. 180–182)	1 day (30 minutes)	1 day (30 minutes)	

	minutes)	minutes)	
Unit 3 Test (Assessment Guide)	1 day (30 minutes)	1 day (30 minutes)	
Performance-Based Assessment (Assessment Guide)	Optional	2 days (30 minutes each)	
Total Days for Unit 3	22 days	38 days	

	(2–3 days/week) Core	Comprehensive (daily)	Customize Your Pacing Guide
Unit 4: Earth’s Surface			
Unit 4 Project	Optional	3 days (30 minutes each)	
Lesson 1: Where Is Water Found on Earth?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 186–187)	10 minutes	15 minutes	
Alternative Engage Strategy (p. 186)	Optional	10 minutes	
Explore/Explain: Lakes and Ponds (pp. 188–189)	15 minutes	15 minutes	
Apply What You Know (p. 189)	10 minutes	10 minutes	
Explore/Explain: Rivers and Oceans (pp. 190–191)	15 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 191)	10 minutes	10 minutes	
Explore/Explain: Liquid or Solid (pp. 192–193)	20 minutes	20 minutes	
Do the Math! (p. 192)	Optional	10 minutes	
Apply What You Know (p. 194)	10 minutes	10 minutes	
Hands-On Activity: Locate Bodies of Water (pp. 195–196)	30 minutes	30 minutes	
Elaborate: Take It Further (pp. 197–198)	Optional	20 minutes	
Elaborate: Take It Further • Read, Write, Share! (p. 198)	Optional	15 minutes	
Evaluate: Lesson Check (pp. 199–201)	30 minutes	30 minutes	
Lesson 2: Engineer It • How Can We Map Land and Water?	5 days (30 minutes each)	6 days (30 minutes each)	
Engage (pp. 202–203)	10 minutes	15 minutes	

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Alternative Engage Strategy (p. 202)	Optional	15 minutes	
Explore/Explain: What Is a Map? (pp. 204–205)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 205)	15 minutes	15 minutes	
Explore/Explain: Use a Map Key (pp. 206–208)	25 minutes	25 minutes	
Apply What You Know • Evidence Notebook (p. 208)	15 minutes	15 minutes	
Hands-On Activity: Engineer It • Make a Map (pp. 209–210)	30 minutes	40 minutes	
Elaborate: Take It Further • Read, Write, Share! (p. 211)	Optional	30 minutes	
Elaborate: Take It Further • Do the Math! (p. 212)	Optional	25 minutes	
Evaluate: Lesson Check (pp. 213–215)	30 minutes	30 minutes	
You Solve It	Optional	1 day (30 minutes)	
Unit 4 Performance Task (pp. 216–217)	Optional	2 days (30 minutes each)	
Unit 4 Review (pp. 218–220)	1 day (30 minutes)	1 day (30 minutes)	
Unit 4 Test (Assessment Guide)	1 day (30 minutes)	1 day (30 minutes)	
Performance-Based Assessment (Assessment Guide)	Optional	2 days (30 minutes each)	
Total Days for Unit 4:	12	23	

	Core (2–3 days/week)	Comprehensive (daily)	Customize Your Pacing Guide
Unit 5: Changes to Earth’s Surface			
Unit 5 Project	Optional	3 days (30 minutes each)	
Lesson 1: What Changes on Earth Happen Slowly?	5 days (30 minutes each)	8 days (30 minutes each)	
Engage (pp. 224–225)	10 minutes	10 minutes	
Alternative Engage Strategy (p. 224)	Optional	5 minutes	
Explore/Explain: Weathering by Wind	15 minutes	15 minutes	

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(pp. 226–227)			
Apply What You Know • Evidence Notebook (p. 227)	Optional	15 minutes	
Explore/Explain: Weathering by Water and Ice (pp. 228–229)	15 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 229)	Optional	15 minutes	
Explore/Explain: Weathering by Plants (pp. 230–231)	15 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 231)	Optional	10 minutes	
Explore/Explain: Erosion by Wind (pp. 232–234)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 234)	Optional	10 minutes	
Explore/Explain: Erosion by Water and Ice (pp. 235–236)	15 minutes	15 minutes	
Do the Math! (p. 235)	Optional	5 minutes	
Apply What You Know (p. 236)	Optional	10 minutes	
Hands-On Activity: Model Erosion (pp. 237–238)	30 minutes	30 minutes	
Elaborate: Take It Further (p. 239)	Optional	10 minutes	
Elaborate: Take It Further • Read, Write, Share! (p. 240)	Optional	10 minutes	
Evaluate: Lesson Check (pp. 241–243)	30 minutes	30 minutes	
Lesson 2: What Changes on Earth Happen Quickly?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 244–245)	10 minutes	10 minutes	
Alternative Engage Strategy (p. 244)	Optional	5 minutes	
Explore/Explain: Earthquakes (p. 246)	10 minutes	10 minutes	
Apply What You Know • Evidence Notebook (p. 247)	Optional	10 minutes	
Explore/Explain: Volcanoes (p. 248)	15 minutes	15 minutes	
Do the Math! (p. 249)	5 minutes	5 minutes	
Apply What You Know (p. 249)	Optional	5 minutes	
Explore/Explain: Landslides (pp. 250–252)	20 minutes	20 minutes	
Apply What You Know (p. 251)	Optional	5 minutes	
Explore/Explain: Hurricanes (pp. 253–254)	15 minutes	15 minutes	
Apply What You Know • Evidence Notebook (p. 254)	Optional	5 minutes	
Explore/Explain: Floods (pp. 255–256)	15 minutes	15 minutes	

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Apply What You Know • Read, Write, Share! (p. 256)	Optional	10 minutes	
Hands-On Activity: Model Quick Changes on Earth (pp. 257–258)	30 minutes	30 minutes	
Elaborate: Take It Further (pp. 259–260)	Optional	20 minutes	
Evaluate: Lesson Check (pp. 261–263)	30 minutes	30 minutes	
Lesson 3: Engineer It • How Can We Prevent Wind and Water from Changing Land?	5 days (30 minutes each)	7 days (30 minutes each)	
Engage (pp. 264–265)	15 minutes	15 minutes	
Alternative Engage Strategy (p. 264)	Optional	5 minutes	
Explore/Explain: Changes Caused by Wind (pp. 266)	20 minutes	20 minutes	
Do the Math! (p. 267)	10 minutes	10 minutes	
Apply What You Know • Evidence Notebook (p. 267)	Optional	5 minutes	
Explore/Explain: Changes Caused by Water (pp. 268–269)	20 minutes	20 minutes	
Apply What You Know • Evidence Notebook (p. 269)	Optional	5 minutes	
Explore/Explain: Ways to Prevent Changes to Land (pp. 270–272)	25 minutes	25 minutes	
Apply What You Know • Read, Write, Share! (p. 272)	Optional	15 minutes	
Hands-On Activity: Engineer It • Prevent Water from Changing Land (pp. 273–274)	30 minutes	40 minutes	
Elaborate: Take It Further (pp. 275–276)	Optional	20 minutes	
Evaluate: Lesson Check (pp. 277–279)	30 minutes	30 minutes	
You Solve It	Optional	1 day (30 minutes)	
Unit 5 Performance Task (pp. 280–281)	Optional	2 days (30 minutes each)	
Unit 5 Review (pp. 282–284)	1 day (30 minutes)	1 day (30 minutes)	
Unit 5 Test (Assessment Guide)	1 day (30 minutes)	1 day (30 minutes)	
Performance-Based Assessment (Assessment Guide)	Optional	2 days (30 minutes each)	
Total Days for Unit 5:	17	32	