

# Simple Solutions

## NextGen Science 5

### Topic Guide

Lesson #	Lesson Title	DCI
1.	What is science and what are scientific methods?.....	ETS1-3
2.	How do scientists study phenomena? Part 1 .....	ETS1-3
3.	How do scientists study phenomena? Part 2 .....	ETS1-3
4.	How do scientists represent phenomena? .....	ETS1-3
5.	Review and ongoing practice	
6.	What can scientists learn by observing patterns? .....	*
7.	How do scientists use cause and effect? .....	*
8.	What are the big ideas in physical science? Part 1: Energy .....	4-PS3.A-B
9.	What are the big ideas in physical science? Part 2: Forces .....	3-PS2.A
10.	Review and ongoing practice	
11.	What are the big ideas in life science? Part 1: Organisms and their Traits .....	K-LS1.C
12.	What are the big ideas in life science? Part 2: How Organisms Survive .....	4-LS1.A
13.	What are the big ideas in earth and space science? Part 1 .....	4-ESS1.C
14.	What are the big ideas in earth and space science? Part 2 .....	4-ESS2.A
15.	Review and ongoing practice	
16.	What is engineering? How is it connected to science?.....	ETS1.A-C
17.	How do engineers design solutions? Part 1: The EDP .....	ETS1.A-C
18.	How do engineers design solutions? Part 2: The EDP continued .....	ETS1.A-C
19.	How can I use the engineering design process?.....	ETS1.A-C
20.	Review and ongoing practice	
21.	What is matter?.....	5-PS1.A
22.	What is a solid?.....	5-PS1.A
23.	What is a liquid? .....	5-PS1.A
24.	What is a gas? .....	5-PS1.A
25.	Review and ongoing practice	
26.	How do we know matter is made of particles?.....	5-PS1.A
27.	How does matter change from one phase to another? Part 1 .....	5-PS1.A

*Review standards from previous grades are in red.*

*\*Performance Expectation/Science and Engineering Practice*

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28.	How does matter change from one phase to another? Part 2.....	5-PS1.A
29.	What are physical properties? .....	5-PS1.A
30.	Review and ongoing practice	
31.	What are chemical properties?.....	5-PS1.A
32.	What properties are used to identify minerals? .....	5-PS1.A
33.	What properties are used to identify metals and nonmetals?.....	5-PS1.A
34.	How do properties help identify matter?.....	5-PS1.A
35.	Review and ongoing practice	
36.	What are physical and chemical changes? .....	5-PS1.B
37.	How do we know that a chemical change has occurred?.....	5-PS1.B
38.	What happens during a chemical reaction? .....	5-PS1.B
39.	Where does matter go?.....	5-PS1.A-B
40.	Review and ongoing practice	
41.	How do we know Earth is a sphere? .....	5-PS2.B
42.	Why do objects fall toward the ground?.....	5-PS2.B
43.	Investigating Powders.....	5-PS1.A
44.	Why are the properties of matter important? .....	5-PS1.A
45.	Review and ongoing practice	
46.	How do plants get the matter and energy they need?.....	5-PS3.D, 5-LS2.B
47.	How do animals get the matter and energy they need?.....	5-LS1.C
48.	What does a food chain show? .....	5-PS3.D, 5-LS2.A-B
49.	What does an energy pyramid show?.....	5-LS2.A
50.	Review and ongoing practice	
51.	What is a decomposer? .....	5-LS2.A
52.	What behaviors help animals get the energy they need?.....	5-LS1.C
53.	What is a food web? .....	5-PS3.D, 5-LS2.A*
54.	How does matter move between living and nonliving things?.....	5-LS2.B*
55.	Review and ongoing practice	
56.	What are Earth’s four systems?.....	5-ESS2.A
57.	What is the hydrosphere? .....	5-ESS2.A

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58.	What types of water are found on Earth? .....	5-ESS2.C*
59.	Where is Earth’s accessible fresh water? .....	5-ESS2.C*
60.	Review and ongoing practice	
61.	How does water move through the hydrosphere? .....	5-ESS2.C
62.	What is the geosphere? .....	5-ESS2.A
63.	What is the rock cycle? .....	5-ESS2.A
64.	What is the atmosphere? .....	5-ESS2.A
65.	Review and ongoing practice	
66.	Why does weather change? .....	5-ESS2.A
67.	What is the biosphere? .....	5-ESS2.A
68.	How does the hydrosphere interact with Earth’s other systems? .....	5-ESS2.A
69.	How does the geosphere interact with Earth’s other systems? .....	5-ESS2.A
70.	Review and ongoing practice	
71.	How does the atmosphere interact with Earth’s other systems? .....	5-ESS2.A
72.	How does the biosphere interact with Earth’s other systems? .....	5-ESS2.A
73.	How can everyone have access to clean fresh water? .....	3-5-ETS1.A-C
74.	Review and ongoing practice	
75.	Review and ongoing practice	
76.	What is biodiversity? .....	5-LS2.A
77.	What roles do consumers play in their ecosystems? .....	5-LS2.A
78.	What role do pollinators play? .....	5-LS2.A
79.	What role do seed spreaders play? .....	5-LS2.A
80.	Review and ongoing practice	
81.	What is the role of plants in an animal’s habitat? .....	5-LS2A
82.	How do some species damage an ecosystem? .....	5-LS2A
83.	How do humans affect Earth’s water? .....	5-ESS3.C
84.	Review and ongoing practice	
85.	Review and ongoing practice	
86.	How does deforestation affect ecosystems? .....	5-ESS3.C
87.	Review and ongoing practice	

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Lesson #	Lesson Title	DCI
88.	How does food waste harm the environment? .....	5-ESS3.C
89.	How do scientists and engineers work together to help animals?....	5-ESS3.C, ETS1.A-C
90.	Review and ongoing practice	
91.	Why do some stars appear brighter than others? .....	5-ESS1.A
92.	What patterns can be observed because of Earth’s rotation? Part 1 .....	5-ESS1.A-B
93.	Why are some stars and constellations only visible at certain times?.....	5-ESS1.B
94.	What patterns can be observed because of Earth’s rotation? Part 2 .....	5-ESS1.B
95.	Review and ongoing practice	
96.	What patterns can be observed because of Earth’s rotation? Part 3 .....	5-ESS1.B
97.	What patterns can be observed because of Earth’s tilt? .....	5-ESS1.B
98.	What is the monthly pattern of the moon?.....	5-ESS1.B
99.	Reading and Interpreting Charts.....	5-ESS1.B*
100.	Review and ongoing practice	
101.	Review and ongoing practice	
102.	Review and ongoing practice	
103.	Review and ongoing practice	
104.	Review and ongoing practice	
105.	Review and ongoing practice	
106.	Review and ongoing practice	
107.	Review and ongoing practice	
108.	Review and ongoing practice	
109.	Review and ongoing practice	
110.	Review and ongoing practice	