

Simple Solutions

NextGen Science 4

Topic Guide

Lesson #	Lesson Title	DCI
1.	What will I do as a scientist?	4-PS3-3*
2.	What is inquiry?	4-PS3-3*
3.	What are some of the branches of science?	4-PS3-3*
4.	What tools do scientists use?.....	3-PS2-1*
5.	Review and ongoing practice	
6.	What is a force?.....	3-PS2.A
7.	Can forces work even if the objects are not touching?.....	3-PS2.A, 3-PS2.B
8.	How do forces affect motion?.....	3-PS2.A
9.	Can forces work together?.....	3-PS2.A
10.	Review and ongoing practice	
11.	What are matter and mass?	2-PS1.A
12.	How does matter change?.....	2-PS1.B
13.	What are properties?.....	2-PS1.A
14.	What can we learn by observing patterns?	4-PS4-1^
15.	Review and ongoing practice	
16.	What is energy? Part One	4-PS3.A
17.	What is energy? Part Two	4-PS3.A
18.	What happens when objects collide?	4-PS3.B
19.	Can objects that are not moving have energy?.....	4-PS3.D
20.	Review and ongoing practice	
21.	How does energy transfer from one object to another? Part One.....	4-PS3.C
22.	How does energy transfer from one object to another? Part Two.....	4-PS3.B
23.	What are some examples of kinetic and potential energy?	4-PS3.D
24.	Where does electricity come from?.....	4-PS3.D
25.	Review and ongoing practice	
26.	What is the difference between science and engineering?.....	4-ETS1.A
27.	How do engineers help people meet their wants and needs?.....	4-ETS1.A

Review standards from previous grades are in red.

**Performance Expectation/Science and Engineering Practice*

^Performance Expectation/Crosscutting Concept

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28.	How do engineers use science to solve problems?	4-ETS1.A
29.	Review and ongoing practice	
30.	Review and ongoing practice	
31.	How do we get energy from coal?.....	4-PS3.D
32.	What are nonrenewable and renewable energy sources?.....	4-ESS3.A
33.	How do we get energy from batteries?	4-PS3.D
34.	What are the properties of waves?.....	4-PS4.A
35.	Review and ongoing practice	
36.	How do ocean waves start?.....	4-PS4.A
37.	What is light?.....	4-PS4.B
38.	What happens when light touches an object?	4-PS4.B
39.	How do we see light?	4-PS4.B
40.	Review and ongoing practice	
41.	Review and ongoing practice	
42.	What is digital information?.....	4-PS4.C
43.	How do scientists work to understand patterns in nature?	4-PS4-1 [^]
44.	Review and ongoing practice	
45.	Review and ongoing practice	
46.	What are the differences between living and nonliving things?	4-LS1.A
47.	What structures help animals survive?	4-LS1.A
48.	How do plants survive?	4-LS1.A
49.	What external structures do insects have?.....	4-LS1.A
50.	Review and ongoing practice	
51.	What structures do organisms have for breathing?	4-LS1.A
52.	How do plants make more of their own kind?	4-LS1.A
53.	What is the life cycle of a flowering plant?.....	4-LS1.A
54.	What is the life cycle of an animal?	4-LS1.A
55.	Review and ongoing practice	
56.	Review and ongoing practice	
57.	How do animals sense their environment?	4-LS1.D

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58.	How do animals escape danger?	4-LS1.D
59.	How do sensory organs help animals get food?	4-LS1.D
60.	Review and ongoing practice	
61.	What do plants need to make their own food?	4-LS1.A
62.	How do plants respond to their environment?	4-LS1.D
63.	What is metamorphosis?	4-LS1.A
64.	Review and ongoing practice	
65.	Review and ongoing practice	
66.	What is beneath Earth’s crust?	4-ESS1.C
67.	How do different kinds of rock form?	4-ESS1.C
68.	What forces change Earth’s crust?	4-ESS1.C
69.	What can we learn from fossils?	4-ESS1.C
70.	Review and ongoing practice	
71.	How do scientists use rock and fossil evidence?	4-ESS1.C
72.	What is weathering?	4-ESS2.A
73.	What is erosion?	4-ESS2.A
74.	How do water and ice change the surface of the Earth?	4-ESS2.A
75.	Review and ongoing practice	4-ESS2.A
76.	How does wind change Earth?	4-ESS2.A
77.	How does gravity change Earth’s surface?	4-ESS2.E
78.	How do plants affect their environment?	4-ESS2.E
79.	How do animals affect their environment?	
80.	Review and ongoing practice	
81.	How do humans affect their environment?	4-ESS2.E
82.	How do Earth’s plates move?	4-ESS2.B
83.	How do maps help us see patterns? Part One	4-ESS2.B
84.	How do maps help us see patterns? Part Two	4-ESS2.B
85.	Review and ongoing practice	
86.	Where do mountain ranges appear?	4-ESS2.B
87.	What are renewable and nonrenewable energy resources?	4-ESS3.A

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Lesson #	Lesson Title	DCI
88.	What are fossil fuels?	4-ESS3.A
89.	What is nuclear energy?	4-ESS3.A
90.	Review and ongoing practice	
91.	What is wind energy?	4-ESS3.A
92.	What is hydroelectric energy?	4-ESS3.A
93.	What is solar power? Part One	4-ESS3.A
94.	What is solar power? Part Two.....	4-ESS3.A
95.	Review and ongoing practice	
96.	What are natural hazards?	4-ESS3.B
97.	How do engineers design safe buildings?.....	4-ETS1.B, 4-ESS3.B
98.	How can citizens stay safe from natural hazards?.....	4-ETS1.B, 4-ESS3.B
99.	How can an early warning system save lives? Part One.....	4-ETS1.B, 4-ESS3.B
100.	Review and ongoing practice	
101.	How can an early warning system save lives? Part Two.....	4-ETS1.B, 4-ESS3.B
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	