

# Contents

<b>Getting the Most from This Guide</b> .....	<b>vi</b>
<b>Key Features</b> .....	<b>vi</b>
<b>Planning Your Event</b> .....	<b>1</b>
Planning Made Easy .....	3
Example Materials.....	17
<b>Topic 1: Disease Control Is in Your Hands</b> <i>camper notebook</i> ....	<b>33</b> <i>leader guide</i> .... <b>135</b>
Why Soap? .....	34     .....136
Design Your Own Soap .....	37     .....140
DNA from Strawberries.....	39     .....143
Colorful Lather Printing.....	42     .....147
Surfactants.....	44     .....150
Blowing Bubbles .....	47     .....154
Take-Home Activity: Watching Granny Smith Rot .....	49     .....158
Take-Home Activity: How Clean Is Your Clan?.....	52     .....159
<b>Topic 2: Water Purification</b> <i>camper notebook</i> .....	<b>55</b> <i>leader guide</i> .... <b>161</b>
Back to Its Elements.....	56     .....162
Distinguishing Water Samples.....	58     .....166
Osmosis with Eggs.....	61     .....170
Water Taste Test .....	65     .....175
Investigating Mineral Content.....	67     .....179
How Hard Is Your Water? .....	69     .....182
Purifying Surface Water .....	71     .....185
How Much Iodine Is Present? .....	74     .....189
Removal of Iodine from Water .....	76     .....193
Take-Home Activity: What's Really in the Bottle?.....	78     .....197
Take-Home Activity: The Amazing Water Maze.....	84     .....198
<b>Topic 3: Healthy Air</b> <i>camper notebook</i> .....	<b>85</b> <i>leader guide</i> .... <b>199</b>
Look at One Part per Million.....	86     .....200
Balloon Challenge.....	88     .....203
Search for One Part per Million.....	90     .....206
Humidity Detector .....	91     .....209
How Much Oxygen Is in Air?.....	93     .....212
Pour a Gas .....	96     .....216
Pour More Gas.....	98     .....219

Stirring Indoor Air .....	100	.....	222
Trapping Particulates .....	102	.....	225
Cartesian Diver.....	104	.....	228
Take-Home Activity: Growing Mold .....	106	.....	231
<b>Topic 4: Healthy Skin</b>			
	<b><i>camper notebook....</i></b>		<b><i>leader guide ....</i></b>
	<b>109</b>		<b>233</b>
Hydrophobic Art.....	110	.....	234
Visible Light Challenge .....	112	.....	237
How Sensitive Is Your Skin?.....	113	.....	239
Make and Test Lip Balm .....	115	.....	242
Cover Up, Screen, or Block? .....	119	.....	247
Sunning Straws.....	122	.....	252
Suntan in a Bottle.....	124	.....	255
A Look at Bleaching .....	127	.....	259
Take-Home Activity: UV Detective Challenge.....	130	.....	263
<b>References.....</b>			<b>265</b>