



Table of Contents



About This Book	5	Leap Frog? No...Leap Ball . . .	46
Science Safety Rules	6	Let It Rip.	48
Physical Science Activities		Let's Go for a Spin	50
Amazing Balloon.	8	Liquid Layers	52
An Underwater Fountain	10	Moving Grains of Pepper	54
Baffling Blast of Air	12	Musical Bottles	56
Balancing a Potato	14	Nifty Knives	58
Balloon Blowout	16	One Tough Tissue.	60
Bridge Construction	18	Paper Porthole	62
Candle Caper	20	Plunger Strength.	64
Clever Cup	22	Powerful Paperbacks	66
Crafty Colors	24	Rocket Compression.	68
Cup-O-Strength	26	Sink or Swim	70
Dancing Raisins	28	Spark in the Dark	72
Daring Dime	30	Star Search	74
Dry Cleaning.	32	Sticky Penny.	76
Eggs-tra Strength	34	That's a Gong.	78
Homemade Glue	36	That's Egg-cellent.	80
How to Make Invisible Ink	38	Watery Wonders.	82
I'm Crushed	40	Wet or Dry	84
In Hot Water	42	What a Strong Grip.	86
It's in the News	44	Wonder Boat	88



Table of Contents



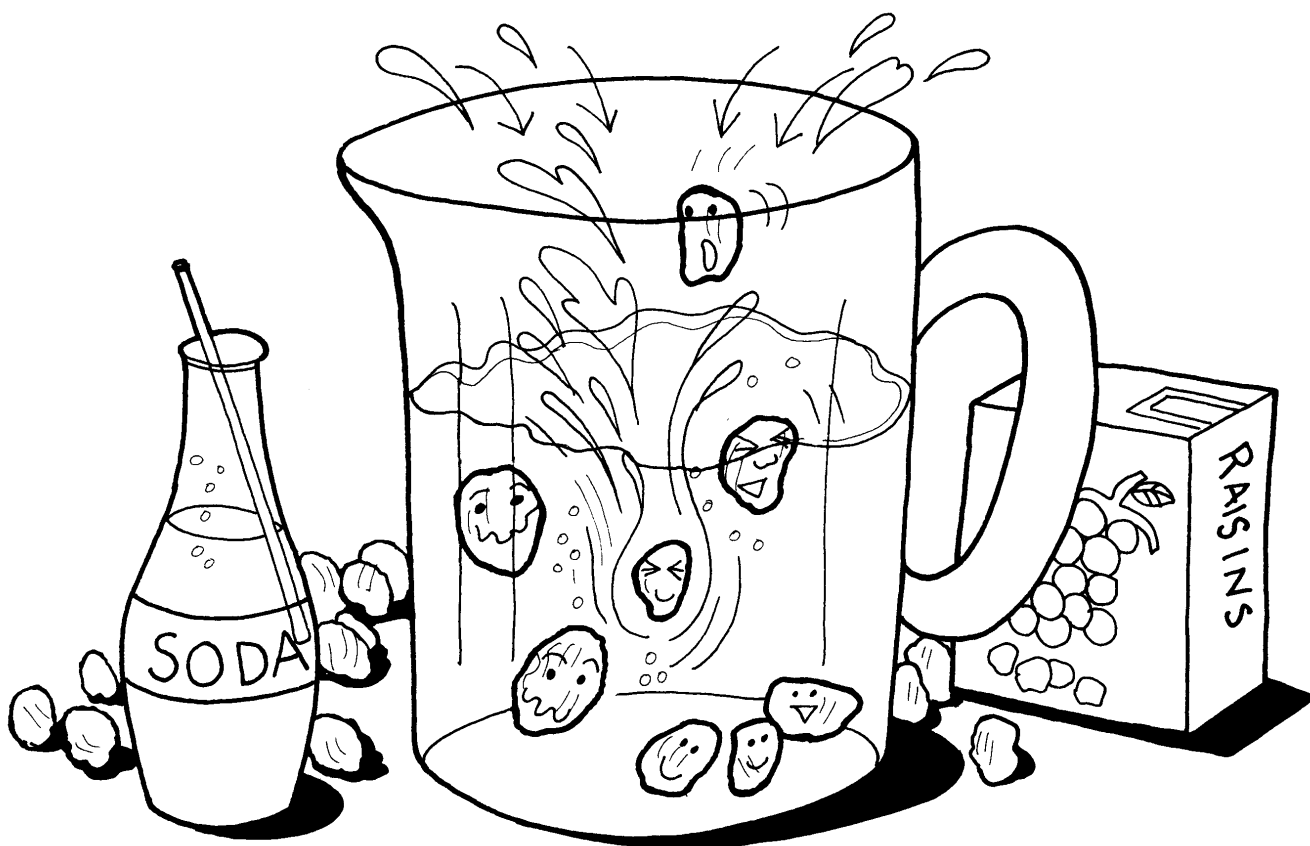
Life Science Activities

Animals Around the House . . .	92
Ant Farming	94
Checking Your Pulse.	96
Count the Insects	98
Fishy Business	100
Home for Winter	102
Ice Cream.	104
Life in a Bottle.	106
Life Underground	108
Life's Little Building Blocks . .	110
Magic Plants	112
Moldy Bread	114
P-U	116
Plants Eat Too.	118
Plant Parts	120
Run to the Sun	122
Slow Down	124
Sprouting Sponge.	126
The Same but Different. . . .	128
Tree Rubbings	130
Underwater Locomotion	132

Earth Science Activities

Clean Water	136
Cooking the Natural Way . . .	138
Expanding Water	140
Homemade Volcano	142
Salty Water	144
Smooth Rocks	146
Soil Examination.	148
Soil: Plant, Mineral, or Both. .	150
Stalactites/Stalagmites	152
Tasty Treats	154
The Air We Breathe	156
Glossary	158

Dancing Raisins



Question

What causes raisins to rise and fall in a glass of soda?

Dancing Raisins

Materials

- a dozen raisins
- a clear plastic water container
- a one-liter bottle of soda water

What to Do

1. Fill your plastic water container with soda water.
2. Add the raisins one at a time to the soda water until all 12 are in the container. Watch as the raisins “dance” from the bottom to the top over and over again.
3. What is causing this to happen?

Why It Works

Soda water is carbonated with carbon dioxide gas, thus producing tiny bubbles when the cap of the bottle is removed. When you add raisins to the water, the carbon dioxide molecules fix themselves to the raisins’ surfaces. This “focusing” of carbon dioxide molecules results in more buoyant raisins, allowing them to rise to the surface. Once the raisins reach the surface of the soda, the carbon dioxide gas is released, and they fall to the bottom of the container, where they repeat the process again.

