



# Table of Contents

<b>How to Use This Book</b> . . . . .	<b>3</b>	<b>Unit 7: How to Work with Probability and Dice</b> . . . . .	<b>29</b>
A Note to Teachers and Parents . . . . .	3	Rolling a Die . . . . .	30
About This Book . . . . .	3	Rolling a Pair of Dice (Part A) . . . . .	31
NCTM Standards . . . . .	4	Rolling a Pair of Dice (Part B) . . . . .	32
<b>Unit 1: How to Categorize Events</b> . . . . .	<b>5</b>	<b>Unit 8: How to Work with Probability and Spinners</b> . . . . .	<b>33</b>
What Are the Chances? . . . . .	6	It's About the Spinner . . . . .	34
What's for Lunch? . . . . .	7	Wheels of Chance . . . . .	35
Making a Graph to Show the Data . . . . .	8	Is it Likely? Is it Unlikely? . . . . .	36
<b>Unit 2: How to Work with Sample Sizes</b> . . . . .	<b>9</b>	<b>Unit 9: How to Work with Probability and Playing Cards</b> . . . . .	<b>37</b>
One Red Jellybean . . . . .	10	It's All in the Suits . . . . .	38
More Than One Red Jellybean . . . . .	11	It's All in the Deck of Cards . . . . .	39
Adding Even More Jellybeans . . . . .	12	More Than One Suit . . . . .	40
<b>Unit 3: How to Organize Data</b> . . . . .	<b>13</b>	<b>Unit 10: Brain Teasers</b>	
Reading a Graph . . . . .	14	Too Many Choices . . . . .	41
Making a Graph . . . . .	15	Even More Choices . . . . .	42
Making a Bar Graph . . . . .	16	<b>Unit 11: Technology</b>	
<b>Unit 4: How to Collect Data</b> . . . . .	<b>17</b>	Tables and Graphs . . . . .	43
Interviewing . . . . .	18	<b>Unit 12: Challenge</b>	
Observing . . . . .	19	It's All in the Dots . . . . .	44
A Taste Test . . . . .	20	Double-Line Graph . . . . .	45
<b>Unit 5: How to Make Different Kinds of Graphs</b> . . . . .	<b>21</b>	Go on a Scavenger Hunt . . . . .	46
A Line Graph . . . . .	22	<b>Answer Key</b> . . . . .	<b>47</b>
Pie Charts . . . . .	23		
A Bar Graph . . . . .	24		
<b>Unit 6: How to Analyze the Data</b> . . . . .	<b>25</b>		
The Mean . . . . .	26		
The Median . . . . .	27		
The Mode . . . . .	28		

**Directions:** What is the chance of . . .

<b>Key</b>		
U = Unlikely	E = Equal Chance	L = Likely






- \_\_\_\_\_ 1. Pulling the Queen of Hearts out of a deck of cards?
- \_\_\_\_\_ 2. Rolling six 1's in a row?
- \_\_\_\_\_ 3. A quarter landing on "heads" five out of ten tosses?
- \_\_\_\_\_ 4. A penny landing on "tails" ten times in a row?
- \_\_\_\_\_ 5. Catching a ball ten times in a row without dropping it?
- \_\_\_\_\_ 6. Receiving a \$2 bill as change at three different stores?
- \_\_\_\_\_ 7. Getting five green lights in a row?
- \_\_\_\_\_ 8. Finding five out of ten people with the same birthday?
- \_\_\_\_\_ 9. Winning every game in Bingo?
- \_\_\_\_\_ 10. Winning at least one game out of ten in Bingo?
- \_\_\_\_\_ 11. Being able to kick a rolling soccer ball?
- \_\_\_\_\_ 12. Getting a green light at two out of four intersections?
- \_\_\_\_\_ 13. Picking a green lollipop out of a pair of lollipops?
- \_\_\_\_\_ 14. Receiving change from buying a toy?
- \_\_\_\_\_ 15. Drinking a glass of water sometime during the day?
- \_\_\_\_\_ 16. Getting the mail?
- \_\_\_\_\_ 17. Finding a penny on the ground?

**Directions:** A graph can be made to show how each statement was answered. Color one box for each statement's answer.

Unlikely										
Equal Chance										
Likely										
	1	2	3	4	5	6	7	8	9	10

**Directions:** Write a sentence about the graph.

**Directions:** Use tally marks to keep track of the vehicles that pass by for ten minutes (or five minutes if there is a lot of traffic).

		Day: _____	Day: _____
		Time: _____	Time: _____
	Motorcycles		
	2-Door/4-Door Cars		
	Vans, SUV's, Station Wagons		
	Trucks		
	School Buses		

- Of which kind of vehicle were there the most? \_\_\_\_\_
- Of which kind of vehicle were the fewest? \_\_\_\_\_
- Would you see more specific kinds of vehicles at certain times of day? If yes, what kind of vehicle and why? \_\_\_\_\_
- If you kept track of vehicles again on a different day but at the same time, do you think the results would be the same? Why or why not? \_\_\_\_\_  
\_\_\_\_\_
- Keep track of vehicles again but on a different day or at a different time. Compare the results. Were there any similarities or differences?  
\_\_\_\_\_  
\_\_\_\_\_
- If you were to watch the traffic again, of what other information could you keep track?  
\_\_\_\_\_