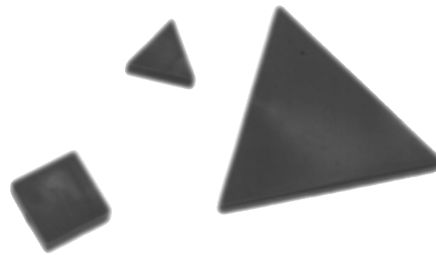




Unit 11: Probability; End-of-Year Review

Unit 11, this year's final unit, contains informal activities relating to chance and probability.

Some of these activities call for children to compare the likelihood of several possible outcomes of an event: Something is more likely to happen than is something else. For example, children will find which of the pattern blocks is most likely to land on an edge when tossed into the air.



Other activities ask children to estimate the chance that something will happen. For example, when a coin is tossed, the chance of it landing heads up is 1 out of 2.



Later in this unit, children will have the opportunity to bring closure to the yearlong, data-collection projects about lengths of days and temperature ranges. They will look at trends and patterns in data and draw conclusions.

Please keep this Family Letter for reference as your child works through Unit 11.

Vocabulary

Important terms in Unit 11:

equally likely Each outcome has the same chance of occurring. For example, the possible outcomes of tossing a coin (HEADS or TAILS) are equally likely.

random draw Each item being drawn has the same chance of being selected. For example, children will draw blocks from a bag and realize that each block has an equal chance of being selected.

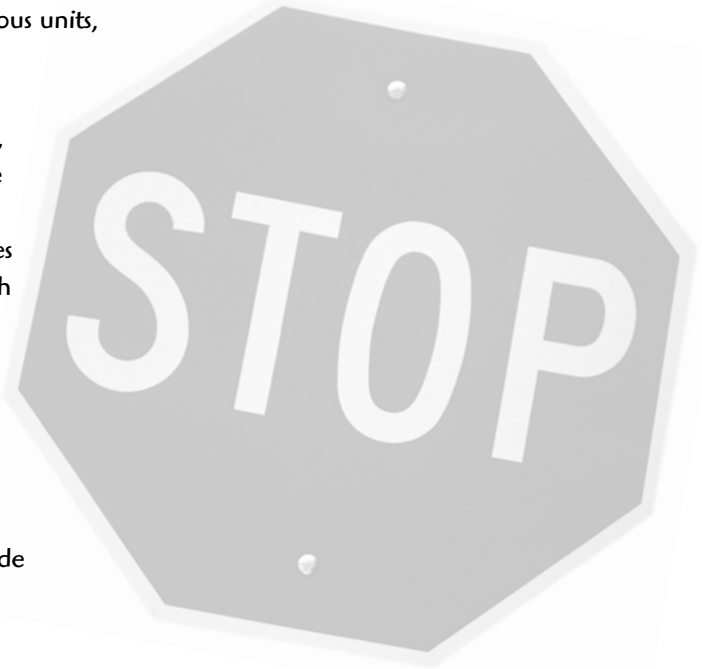
winter solstice The shortest day of the year; the first day of winter in the Northern Hemisphere. The winter solstice occurs on or about December 21.

summer solstice The longest day of the year; the first day of summer in the Northern Hemisphere. The summer solstice occurs on or about June 21.

Do-Anytime Activities

To work on the concepts taught in this unit and in previous units, try these interesting and rewarding activities:

- 1 When you are in the car or walking with your child, search for geometric figures. Identify them by name if possible and talk about their characteristics. For example, a stop sign is an octagon, which has 8 sides and 8 angles. A brick is a rectangular prism, in which all faces are rectangles.
- 2 Draw name-collection boxes for various numbers and together with your child write five to ten equivalent names in each box. Include name-collection boxes for fractions and decimals. For example, a $\frac{1}{2}$ name-collection box might include $\frac{2}{4}$, $\frac{10}{20}$, 0.5, 0.50, $\frac{500}{1,000}$, and so on. Then create name-collection boxes that included equivalent measures. For example, a 1 ft name-collection box might contain 12 in., $\frac{1}{3}$ yd, $\frac{1}{5,280}$ mile, $\frac{12}{36}$ yd, and so on.



1 ft	
12 in.	$\frac{1}{5,280}$ mile
$\frac{1}{3}$ yd	$\frac{12}{36}$ yd

Building Skills through Games

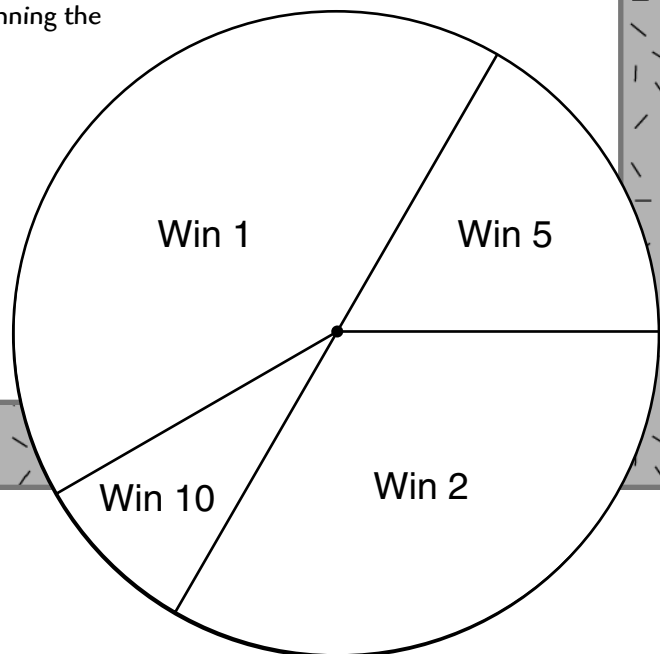
In Unit 11, your child will practice skills related to chance and probability by playing the following games. For detailed instructions, see the *Student Reference Book*.

The Block-Drawing Game

Without letting the other players see the blocks, a “Director” puts five blocks in a paper bag and tells the players how many blocks are in the bag. A player takes a block out of the bag. The “Director” records the color of the block for all players to see. The player replaces the block. At any time, a player may say “Stop!” and guess how many blocks of each color are in the bag.

Spinning to Win

Each player claims one section of the spinner—1, 2, 5, or 10. Players take turns spinning the spinner. If the spinner lands on a player’s number, the player takes that number of pennies. The player with the most pennies after 12 spins wins the game.



As You Help Your Child with Homework

As your child brings home assignments, you may want to go over the instructions together, clarifying them as necessary. The answers listed below will guide you through this unit's Home Links.

Home Link 11.1

1. sure to happen
2. sure not to happen
3. may happen, but not sure
4. may happen, but not sure
5. may happen, but not sure

Home Link 11.6

1. 0
2. 3
3. 6
4. 1
5. Sample answer: In Problem 3, $\frac{1}{4}$ of the blocks are blue; in Problem 4, $\frac{1}{4}$ of the blocks are red.

Home Link 11.7

1. 34 times
2. 57 times
3. 28 times
4. 18 times

Home Link 11.8

1. 13,841
2. 1,863
3. 2,075
4. 3,092
5. 6,865
6. 2,250
7. 2,709
8. 28,640
9. 7,200

Home Link 11.9

Numbers	Add	Subtract	Multiply	Divide
22 and 7	$22 + 7 = 29$	$22 - 7 = 15$	$22 \times 7 = 154$	$22 \div 7 \rightarrow 3 \text{ R}1$
46 and 6	$46 + 6 = 52$	$46 - 6 = 40$	$46 \times 6 = 276$	$46 \div 6 \rightarrow 7 \text{ R}4$
52 and 5	$52 + 5 = 57$	$52 - 5 = 47$	$52 \times 5 = 260$	$52 \div 5 \rightarrow 10 \text{ R}2$
150 and 3	$150 + 3 = 153$	$150 - 3 = 147$	$150 \times 3 = 450$	$150 \div 3 = 50$
560 and 80	$560 + 80 = 640$	$560 - 80 = 480$	$560 \times 80 = 44,800$	$560 \div 80 = 7$
3,000 and 50	$3,000 + 50 = 3,050$	$3,000 - 50 = 2,950$	$3,000 \times 50 = 150,000$	$3,000 \div 50 = 60$
12,000 and 60	$12,000 + 60 = 12,060$	$12,000 - 60 = 11,940$	$12,000 \times 60 = 720,000$	$12,000 \div 60 = 200$

