



Chapter 5 Probability and Data

In this chapter, children are introduced to data and probability. Data is information collected from surveys or experiments in the form of facts and figures. Probability describes the likelihood that events will occur. In the first lesson, children use tallies to record outcomes and learn how to describe the likelihood of events. The rest of the chapter covers how to present data as real-object graphs, picture graphs, bar graphs, pictographs, and line graphs as well as how to interpret data presented in these types of graphs.

About the Math

- Children systematically consider the likelihood of various events.
- First children categorize by possible and impossible.
- Then children consider degrees of likelihood as more likely, less likely, and equally likely.
- When statistical data is collected in the real world, it is done to answer a question and the nature of the questions determines how the data is collected. Children learn many methods of displaying data and that each method serves a purpose.

Vocabulary

possible



It is **possible** to pick a blue marble.

impossible



It is **impossible** to spin blue.

less likely



You are **less likely** to pick yellow than red.

picture graph



pictograph



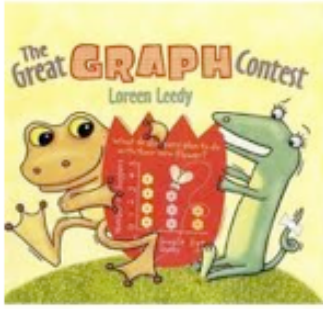
Key: Each stands for 5 children.

Literature Connection

The Great Graph Contest

By Loreen Leedy

Math Concept: using bar graphs



In the Car Activities

- ★ Propose real life scenarios that are possible, impossible, likely, unlikely.
- ★ Name different situations and have child tell possible outcomes (ie flip coin- heads or tails).

Family Fun

What Are You Pulling?

Work with your child to play a probability game called *What Are You Pulling?*

- Put 30 of the same food item into a paper lunch bag. You might use candies, cereal pieces, or crackers in different colors or shapes. Do not let your child see what is inside the bag.
- Take turns with your child. Pull out one item at a time from the bag without looking inside. Then replace the item and mix them up. Record the results on each turn. After taking 10 turns, starting asking this question: What do you think you will pull out now?
- With each turn, your child should get better at making predictions. Look back at what has already been pulled out before making a prediction.
- Continue for as long as you wish. Then, if you want, eat the items together!

Word Search

Work with your child to circle these words in the puzzle.

| | |
|---------------|----------|
| BAR GRAPH | DATA |
| IMPOSSIBLE | KEY |
| PICTOGRAPH | LIKELY |
| PICTURE GRAPH | POSSIBLE |
| LINE GRAPH | PREDICT |
| SYMBOL | TALLY |

