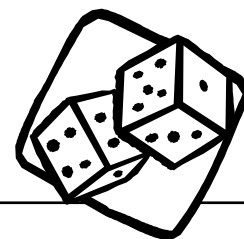# Color Draw

Figure out how many of each colored object is in the bag.

What you need
24 crayons (or other colored objects)
    eight of three different colors
Brown paper bag
Pencil and Paper

What to do
1. One person puts 10 crayons in a bag using all 3 colors.
2. Say which colors are in the bag and how many of each color.
3. Everyone else should guess which color will be drawn the most.
4. Take turns picking one crayon out of the bag at a time.
5. Record the color with a tally mark.
6. Put the crayon back in the bag and let the next person draw.
7. Draw ten times then total on your paper the number of times each color was drawn.
8. Compare your prediction to the actual results.
9. Draw another ten times and make another total. Have the results changed?
10. Let the next person place a new set of crayons in the bag and play again.

What to ask
• Which color do you think will be chosen most often? Why?
• What color are you certain to draw?
• Which color do you think will be chosen least often?

Did you know?
Chance and odds are part of our daily life when we look for prizes in a cereal box, when we participate in door prize drawings, when we are selected from a large group in jury duty. We experience probability in how many times we are stopped by a stoplight or whether we will have to stop for a train on the way to school.

The Children's Museum of Houston

Math Path
ExxonMobil
Magnificent Math Moments
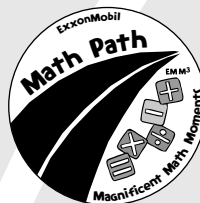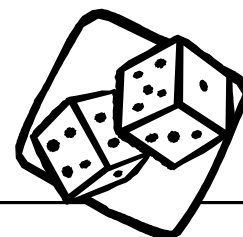
What's next?

• Add more colors to the ten crayons. How does this change your predictions?
• Add more total crayons to the bag. How does this change your predictions?
• Hide the number of each color of crayon that is placed in the bag. Then, have everyone try to figure out how many of each color of crayons are in the bag.

To learn more

The Crayon Counting Book
by Pam Munoz Ryan

Colorful pictures, words and numbers are found on each page of this book that teaches counting by twos in two different ways.

How it helps with school

Texas PreKindergarten Curriculum Guidelines
Number and Operations, Classification and Data Collection

Texas Essential Knowledge and Skills (TEKS) Standards
Number, Operations, and Quantitative Reasoning: K.1A-C; 1.1B
Patterns, Relationships, and Algebraic Thinking: K.6A, 1.4A, 2.6C
Probability and Statistics: K.12B; 1.9B, 1.10A-B; 2.11B-C
Underlying Processes and Mathematical Tools: K.14A, K.15; 1.12A, 1.13; 2.13A, 2.14

National Council of Teachers of Mathematics (NCTM) Standards
Number and Operations, Algebra, Data Analysis and Probability, Reasoning and Proof, Communication, Representation