# Hidden Rainbow



Find the order of the colors of a rainbow hidden by a leprechaun.

#### What you need

Colored chips (four different colors)
Game board
Gold pieces (or pennies)

#### What to do

The leprechauns have played a trick! They have jumbled up the colors of the rainbow and hidden the rainbow behind a dark cloud.

- 1. Decide who wants to be the leprechaun and who wants to be the guesser.
- 2. The leprechaun secretly makes a rainbow using the colored chips and hides it under the cloud.
- 3. The guesser lays four different colors out on the first row showing their guess.
- 4. The leprechaun gives hints by placing a piece of gold (or a penny) on top of each color that is in the right place.
- 5. When the guesser places the colors in the right order, the leprechaun must uncover the rainbow.

### What to ask

- What is the best first guess?
- How do you fix a wrong guess?
- Do you change one or more than one chip?
- How many ways can you arrange the four difference colors?



# Did you know?

Learning how to follow clues step by step helps you figure out answers to difficult questions. For example, a mechanic would use the clues from the car to find out why it is not working. Finding and using clues is the same as collecting and using data.







## What's next?

- Make a rainbow with more colors.
- Estimate the number of guesses and graph the results.
- Make a rainbow with more than one of the same color. (Example: 2 red, 1 yellow, 1 green)

#### To learn more

#### All the Colors of the Rainbow

by Allan Fowler

Rainbows are beautiful arcs of colored light. Find out how they form after a rainstorm and how you can create one in your own backyard.

#### Animal, Vegetable or Mineral?

by Tana Hoban

Who has not played Twenty Questions with its clues of "Animal, Vegetable, or Mineral"? The master of concept photography has now taken the three categories and made the game her own. Some of these full-color photos deal with a single category, some with two, and some with all three.

#### **Pattern Quest**

#### http://pbskids.org/cyberchase/games.html

Try to find the secret pattern using 4 of the 6 given shapes

#### Crack Hacker's Safe

#### http://pbskids.org/cyberchase/games.html

Help Digit Crack Hacker's safe by finishing the pattern.

### How it helps with school

#### Texas Essential Knowledge and Skills (TEKS) Standards

Patterns, Relationships, and Algebraic Thinking: 4.7; 5.5A

Probability and Statistics: 3.13A; 4.13A; 5.12B

Underlying Processes and Mathematical Tools: 3.15C, 3.17; 4.14C, 4.16; 5.14C, 5.16

#### National Council of Teachers of Mathematics (NCTM) Standards

Problem Solving, Representation, Communication, Data Analysis and Probability

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