

# Colour dice: Will my colour come up?

## Primary Lesson Plan

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### Source

[Chance and Data Investigations Volume 1](#) (page 10)

Charles Lovitt and Ian Lowe (published by Curriculum Corporation, 1993)

### Learning area

Mathematics

### Level

Early primary (K3)

### Description

A unit of work in this area will help students investigate the results of rolling a coloured die. Ideas of probability, investigating and graphing emerge. One lesson from such a unit is presented here.

### Purpose

To see and record the colours that occur with the roll of a coloured die.

### Lesson duration

30 minutes

### Possible outcomes

In relation to *Mathematics — a curriculum profile for Australian schools*, a unit of work in this area could lead to the achievement of outcomes in the following strand:

### Chance and data

- Understanding, estimating and measuring chance variation
- Collecting data
- Organising data
- Displaying and summarising data
- Interpreting data

There will also be links with other learning areas such as English.

## Materials required

- 1 die (with 6 different coloured faces) for each group of 4 children. (It may help to use the colours red, yellow, blue, green, black and white. Coloured dot stickers can be stuck on the different faces of the die).
- lots of coloured cubes; at least 30 per group. Colours need to match the coloured dice faces. (Unifix cubes are ideal.)

### *Extension activity only*

- coloured paper squares, matching the dice faces and cubes  
paste
- a large sheet of paper

## Procedure

### 1 Explain the game

Ask the students to sit in a large circle.

Show them:

- a coloured die, each face with a different colour
- a pile of at least 30 cubes, with colors matching the faces of the die

Roll the die. Look at the colour on top. Put out a cube of the same colour. Select different students to have a turn at rolling the die and selecting a matching cube. Encourage them to discuss what is going on. What colour do they think will turn up next? Why?

### 2 Class discussion

After about 10 turns of rolling the die, discuss the results, asking some of the following questions:

- Did one colour turn up more often than other colours?
- Why do you think this happened?
- Which colour was it?
- Why do you think this colour turned up more often?
- Did any of the colours not turn up?
- Why do you think this happened?
- Would the same thing happen if we rolled the dice another 10 times?

Let's find out!

### 3 Small-group work

Divide students into groups of 4. Give each group a die and a pile of cubes. Get them to play the game, taking it in turns to roll the die and put out a matching cube. Encourage them to talk about the process. The teacher can move from group to group, discussing the results.

## **Extension activity**

After 20 turns of the game, students can sort the 20 cubes in rows of different colours. Show the students how to use the coloured squares to make a graph that represents the rows of colored cubes. Paste the coloured squares in rows on a sheet of paper, and label with the colour name.

## **Suggested follow-up activities**

Students can predict the results before commencing the game. Record their predictions, and see how accurate they are.

- Combine 2 groups' results. What do think will happen when we combine the results of 2 different groups?
- Make a graph from the results of the whole class.
- Play the game using a die where some of the faces are the same colour (red, blue, green, yellow, yellow, black). Will this make a difference to our results? How? Why?