

Lesson Plan #2—Math

Title: Probability

Introduction:

Probability is the study of random events. The theory of probability is an important branch of mathematics with many practical applications in the physical, medical, biological and social sciences. An understanding of this theory is essential to appreciating weather reports, medical findings, political doings and the state lotteries.

Objectives:

In this lesson, students will:

- Collect, organize, display, and interpret data
- Understand the basic principles of probability

Session time: 40-50 minutes

Materials:

- Two dice
- Probability graph

Methods: Teacher demonstration, cooperative learning, interactive participation, guided discussion

Procedure:

1. Introduce probability. *If a person tosses a coin, only 1 out of 2 sides can show when it lands, so the probability for either side is 1 out of 2 or $\frac{1}{2}$. However, if a die with numbers 1-6 is rolled, the probability of any number showing is 1 out of 6 or $\frac{1}{6}$. If there are 3 socks in a drawer—2 red and 1 blue—the probability of blindly pulling out a red sock is twice as great as that for a blue sock. Red sock—2 out of 3 or $\frac{2}{3}$ and blue sock—1 out of 3 or $\frac{1}{3}$.*
2. Show a die and ask which number will be on top when you roll it.
3. Have the student roll one die 20-30 times and record the result on a graph.
4. Show the student the Probability Graph and two dice.
5. Have the student roll the dice several times and after each roll, color in a square above the sum of the 2 numbers.
6. After about 30 rolls, ask which sum was rolled the most times? (*Probably 7*) Which sums were rolled least? (*Probably 2 and 12*) Discuss why.

Note: This lesson is included in the workshop, ***Math Manipulatives for the ABE/GED Classroom***, in the ***SIPDC Catalog of Professional Development Opportunities***.

Probability Graph

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