

LEARNING PLAN

Mylla Marvin, Renee Severson

<p>Exploratory Activities <i>Pigs at Odds Fun with Math and Games</i> by Amy Axelrod <i>No Fair!</i> By Caren Holtzman <i>Do You Wanna Bet? Your Chance to Find Out About Probability</i> by Jean Cushman <i>Probably Pistachio</i> by Stuart J. Murphy</p>	<p>CONCEPT</p> <p style="text-align: center;">Probability – 5th grade</p>
<p>Concept Development Activities <u>Activities</u> It's in the Bag - With six different color counters in a bag, the student picks out one at a time and records. (p. 492) <i>Mathematics in Action</i> Give it a Spin! - Using a spinner, with a friend, spin, record, and see outcome after 20 times. (p. 493) <i>Mathematics in Action</i> How Likely Is Rain? - Students use Probability Meter to determine chances (percents) of rain. (p. 232) <i>Everyday Mathematics</i> Let it Roll! - With a die, tally the frequency of six different numbers. (p. 493) <i>Mathematics in Action</i> Spin Again! - Find out the probability of spinning less than 3 on a spinner divided 0-9. (p. 494) <i>Mathematics in Action</i> Pick It - With a partner, pick out a card from bag and put it back in the bag. After a set amount of times, find out the frequency. (p. 495) <i>Mathematics in Action</i> Counter Toss - Tossing 2 red and yellow counters, find out the frequency of both landing yellow-yellow. (p. 493-496) <i>Mathematics in Action</i> Cube It - 10 cubes of 4 different colors in bag. Prediction of results and then the experiment. (p. 500) <i>Mathematics in Action</i> Rollo – A 2 Dice Game - The Math Solution Publications. Find possible sums of two independent events (sum of two dice). Discover which sum has most combinations. Develop strategy to win Rollo game. (p. 45-56) <i>A Collection of Math Lessons</i> A Famous Needle - Find the probability of sums using two dice. (p. 134) <i>Mathematics in Action</i> Roll 'Em - Fill in worksheet after you roll a pair of dice 100 times and tally results. List combinations and probability. (p. 47) <i>The Mailbox</i> Record-Breaking Snake-Sitting - Practice writing probability outcomes in fraction form. (p. 40) <i>Graphing, Statistics, & Probability</i> Tattoo or Not Tattoo? - Find the probability of an event. (p. 41) <i>Graphing, Statistics, & Probability</i> Walking Tall for New Records. - Find the probability of an event. (p. 44) <i>Graphing, Statistics, & Probability</i> The Biggest Drop - Describe outcomes of 2 events. (p. 46-47) <i>Graphing, Statistics, & Probability</i></p>	<p>Materials and Resources: Books: <i>Pigs at Odds Fun with Math and Games</i> by Amy Axelrod. ISBN#0-689-81566-2 The Pig Family goes to the county fair. The Pigs take chances on fun and games to show probability. <i>No Fair!</i> by Caren Holtzman. ISBN# 0-590-92230-0 Two friends, Kristy and David, show probability in everyday activities and the probability idea of fairness. <i>Do You Wanna Bet? Your Chance to Find Out About Probability</i> by Jean Cushman. ISBN# 0-395-56516-2 Danny and Brian discover that chance plays a surprisingly large part in their lives, at home, at school, even at birthday parties. We participate in learning how to figure chances as we follow their adventures. <i>Probably Pistachio</i> by Stuart J. Murphy. ISBN# 0-06-446734-1 We learn to tell when something is certain, more likely, less likely, or impossible in the everyday life of Jack. <i>Mathematics in Action</i> by MacMillan /McGraw-Hill Grade 5 ISBN # 0-02-108493-9/5 <i>The Good Time Math Event Book</i> by Marilyn Burns. Creative Publications. ISBN # 0-88488-059-1 <i>Graphing, Statistics, & Probability</i> by Imogene Forte & Marjorie Frank. Incentive Publications, Inc. ISBN # 0-86530-445-9 <i>The Mailbox</i> by The Education Center. Intermediate Magazine, June/July 1993 <i>A Collection of Math Lessons</i> by Marilyn Burns. The Math Solution Publications. ISBN # 0-941-35500-4 <i>Everyday Mathematics</i> TE Grade 5. Everyday Learning. The University of Chicago School Mathematics Project. ISBN # 1-57039-912-3 Materials: Overhead Markers; Transparencies; Notebook paper; Dice; Two Color Counters; Overhead Two Color Counters; Pencils; Overhead projector, Colored</p>

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6/17/05

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<p>Carefully Balanced Eggs. - Identify combinations of sets within a set. (p. 48) <i>Graphing, Statistics, & Probability</i></p> <p>Greedy - Object of the game is to accumulate the most points out of the whole group. (p. 98) <i>Everyday Mathematics</i></p>	<p>Counters; 2 Dice; Deck of playing cards; Pennies; Nickels, Colored cubes; Thumb tacks; Spinners; Ordinary book (for sentences); Centimeter cubes.</p> <p>Websites:</p> <p>www.shodor.org/interactivate/activities/race/index.html</p> <p>www.bbc.co.uk/education/mathsfile/shockwave/games/fish.html</p> <p>www.coolmath4kids.com</p>
<p>Learning Centers</p> <p>Out Numbered - With a partner, using 2 dice, throw dice till one player earns 10 points. (p. 38) <i>The Good Time Math Event Book</i></p> <p>Diamond Hunt - Using a deck of playing cards and dealing 4 cards at a time, find out the probability of getting diamonds. (p. 39) <i>The Good Time Math Event Book</i></p> <p>Penny Flip - Flip a penny 100 times to find out the chances of heads coming up the same as tails. (p. 40) <i>The Good Time Math Event Book</i></p> <p>Tossing Tacks - 10 thumbtacks and a paper cup are needed. Toss one thumbtack on the desktop and record how it landed. After repeated tosses, what is the outcome? (p. 42) <i>The Good Time Math Event Book</i></p> <p>Sum Fun - With a friend, using 2 spinners, come up with a sum. The game is won with the most points. (p. 43) <i>The Good Time Math Event Book</i></p> <p>Faces – Deal 13 cards from a deck of cards and tally how many are Jacks, Queens, or Kings. Repeat for 25 times. The chart will show results. (p. 45) <i>The Good Time Math Event Book</i></p> <p>Six Cents Worth - Flipping a penny and a nickel, find out the odd of having both turn up heads. (p. 46) <i>The Good Time Math Event Book</i></p> <p>Operation Alphabet - Randomly choose 3 sentences out of a book and record how many times each letter appears. (p. 47) <i>The Good Time Math Event Book</i></p> <p>Three’s a Committee. - You organize information in order to find out how many different arrangements of things you can make. (p. 54) <i>The Good Time Math Event Book</i></p> <p>Piggy Bank Probabilities - Find the Probability of an event. (p. 42) <i>Graphing, Statistics, & Probability</i></p> <p>Lots and Lots of Litter - Find the probability of an event. (p. 43) <i>Graphing, Statistics, & Probability</i></p> <p>Puzzling Record - Use random sampling to make probability</p>	<p>Originality and Creativity</p> <p><i>Student Products in Probability Carnival Games</i></p> <p>Written – Probability Game directions. Students have to write how you play their game.</p> <p>Verbal – Explain Probability Game to class.</p> <p>Kinesthetic – Constructing Probability Game and displaying it.</p> <p>Visual – The finished product’s appearance.</p>

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<p>predictions. (p. 49) <i>Graphing, Statistics, & Probability</i> Barrow Racing for Dollars - Use probability concepts to solve problems. (p. 50) <i>Graphing, Statistics, & Probability</i></p> <p>Computer Center Activities: www.shodor.org/interactivate/activities/race/index.html This is a Racing Game with One Die using cars. Can have partners. www.bbc.co.uk/education/mathsfile/shockwave/games/fish.html This is a Fish Tank game where you figure out how many fish are needed of each color in the tank. www.coolmath4kids.com Go to the Lemonade Stand. This is a real life situation where you have to decide what is needed to maintain your own business, a lemonade stand.</p>	
<p>Basic Facts and Standard Algorithms Formalized</p> <ul style="list-style-type: none"> • Use different methods/activities to discover probability concepts • Understand vocabulary: certain, more likely, less likely, equally likely, impossible, 50-50, mathematical/theoretical probability, experimental probability, combinations, tree diagram. • Use fractions/ratios to write probability chances, predictions or results. • Use fraction X whole numbers to predict possible outcomes. • Use combinations, permutations, or tree diagrams to predict probability of independent events • Use decimals or percents as another way to express probability. 	
<p>Assessment Class Participation Observations Centers Probability Game Carnival</p>	
<p>Related TEKS 5th grade - 12 A and B</p>	