

# Matrix: A Lucky Draw

<b>Student's Name:</b>		<b>Grade Level:</b>		<b>School:</b>	
<b>Analytical Score:</b>			<b>Holistic Score: N A P E</b>		
<input type="checkbox"/> Understanding:		N A P E		<b>Comments or Observations:</b>	
<input type="checkbox"/> Reasoning, Strategies, & Mathematical Procedures:		N A P E			
<input type="checkbox"/> Communication:		N A P E			
<b>APS MATHEMATICS STRAND: DATA ANALYSIS, STATISTICS, AND PROBABILITY</b>					
<b>GRADE: THIRD</b>					
<b>Analyzes and draws conclusions</b> about simple probability experiments.		<b>Uses</b> probability terms such as likely, unlikely, possible, impossible, probable, and certainty.			
<b>GRADE: FOURTH</b>					
<b>Explains</b> outcomes of probability experiments verbally and numerically (e.g., 3 out of 4, 3/4) using appropriate probability terms.					
<b>GRADE: FIFTH</b>					
<b>Performs</b> simple probability experiments and <b>organizes</b> data in a useful way: <ul style="list-style-type: none"> <li>✓ <b>identifies</b> patterns,</li> <li>✓ <b>predicts</b> outcomes, and</li> <li>✓ <b>explains</b> effects on outcomes when a probability experiment is conducted several times.</li> </ul>		<b>Explains</b> the fairness of games and outcomes of events using knowledge of probability concepts.		<b>Explains</b> that the measure of the likelihood of an event can be represented by a number from 0 to 1 (e.g., If you flip a coin, you have $\frac{1}{2}$ chance of getting either heads or tails.).	

## APS MATHEMATICS STRAND: PATTERNS, FUNCTIONS, AND ALGEBRAIC CONCEPTS

### GRADE: THIRD

Identifies and creates patterns in all areas of math.

Finds, invents, and uses patterns to solve problems.

## APS MATHEMATICS STRAND: GLOBAL MATHEMATICAL PROCESSES

### GRADE: KINDERGARTEN THROUGH TWELTH

Develops resourcefulness and perseverance in problem solving in mathematics and other disciplines.

Works in teams to share ideas, to develop and coordinate group approaches to problems, and to communicate findings.

Recognizes and applies mathematics in contexts outside the mathematics course.

Recognizes when to use previously learned strategies to solve new problems.

Communicates mathematical thinking coherently and clearly to others.

Develops a repertoire of mathematical representation (e.g. pictures, written symbols, oral language, real-world situations, and manipulative models) that can be used purposefully and appropriately interchangeably.

Develops and uses strategies (e.g., breaking complex problems into simpler parts) for solving given problems.

Analyzes and evaluates mathematical thinking and strategies of others.

Selects, applies, and translates among mathematical representations to solve problems.

Monitors, discusses, and reflects on the process of mathematical problem solving.

Relates applications to mathematical language in various modalities.

Uses representations to model and interpret physical, social, and mathematical phenomena.

Makes and investigates mathematical conjectures and uses them successfully in developing and evaluating mathematical arguments and proofs.

Identifies and connects functions with real-world applications.

Uses manipulatives, calculators, computers, and other tools as appropriate in order to strengthen mathematical thinking, understanding, and power to build upon foundational concepts.