MATRIX: STIR CRAZY!

Student's Name:	Grade Level:	School:

Analytical Score:

- ❑ Understanding: **N A P E**
- ❑ Reasoning, Strategies, & Mathematical Procedures: **N A P E**
- ❑ Communication: **N A P E**

Holistic Score: N A P E

Comments or Observations:

APS MATHEMATICS STRAND: PATTERNS, FUNCTIONS, AND ALGEBRAIC CONCEPTS

GRADE: SIXTH

Predicts sequences and patterns involving varying rates of change (e.g., growth over time).		**Explains** that equations are symbolic representations of relationships, patterns, and functions.			
Explains how expressions are used to model functions and patterns [e.g., 2, 4, 6, 8 represents $f(x) = 2n$].		**Solves** one-step equations using the concept of balance when quantities are added, subtracted, or divided to both sides of an equation.			

GRADE: SEVENTH

Identifies and uses variable expressions and formulas to solve a variety of real-life situations (e.g., Simple Interest: I =prt).		**Develops and tests** strategies for solving two-step equations.			
Represents, describes, and analyzes numerical patterns and linear relationships using tables, graphs, words, and standard algebraic notation.		**Translates** hypotheses into formal methods of solving algebraic equations.			

GRADE: EIGHTH					
Represents, describes, and analyzes numerical patterns and relationships using tables, graphs, words, and standard algebraic notation.		**Simplifies** algebraic expressions including rational expressions.		**Develops and tests** strategies for solving multi-step equations.	
Identifies and models real-life situations using multiple representations.		**Investigates and applies** the basic mathematical properties (e.g., commutative, associative, distributive, identity, and zero) in a variety of situations.		**Solves** equations for specified variables (e.g., solve for *h* if A = *bh*/2).	
APS MATHEMATICS STRAND: DATA ANALYSIS, STATISTICS, AND PROBABILITY					
GRADE: SIXTH					
Develops and **evaluates** inferences, predictions, and arguments that are based on data.					
GRADE: SEVENTH					
Applies counting principles to determine sample space (e.g., tree diagrams, fundamental counting principle, combinations, and permutations).		**Determines** probability of dependent and independent events in experimental and theoretical situations.			
Determines simple probability in experimental and theoretical situations.		**Explains and uses** appropriate terminology to describe complementary and mutually exclusive events.			
GRADE: EIGHTH					
Interprets data and **makes conclusions** from data.					

APS MATHEMATICS STRAND: NUMBER SENSE AND OPERATIONS					
GRADE: SIXTH					
Selects an appropriate operation (i.e., +, -, x, ÷) to solve situational story problems.		**Selects and uses** the appropriate number form (e.g., fraction, decimal, or percent) in a variety of situations, including measurement in U.S and metric systems.		**Determines** when an exact answer is necessary or when an estimate is appropriate (e.g., medicine dosage vs. number of people at a concert).	
GRADE: SEVENTH					
Explains the relationship that can be expressed as ratios of part-to-whole (e.g., 5 red apples out of a total of 8 apples, expressed as 5/8).					
GRADE: EIGHTH					
Develops and evaluates arguments involving real numbers, their patterns and operations.					
APS MATHEMATICS STRAND: GEOMETRY, SPATIAL SENSE, AND OPERATIONS					
GRADE: SIXTH					
Converts accurately from one unit to another accurately within the same system (e.g., 36 inches = 3 feet or 2 kilometers = 2000 meters).					
GRADE: SEVENTH					
Uses appropriate standard units for estimating measurements.					

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.	