

KMIND GRADE K MATH CLASS CURRICULUM

OVERVIEW OF CALIFORNIA STATE STANDARDS OF MATH:

COUNTING AND CARDINALITY

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.

OPERATIONS AND ALGEBRAIC THINKING

- Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

NUMBER AND OPERATIONS IN BASE TEN

- Work with numbers 11–19 to gain foundations for place value.

MEASUREMENT AND DATA

- Describe and compare measurable attributes.
- Classify objects and count the number of objects in categories.

GEOMETRY

- Identify and describe shapes.
- Analyze, compare, create, and compose shapes.

FOUNDATIONAL MATHEMATICAL PRACTICES:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.

8. Look for and express regularity in repeated reasoning

LIST OF MATH TOPICS/SKILLS WILL BE COVERED IN CLASS

- Addition & Subtraction to 10
- Addition to 10
- Base Ten Blocks
- Classifying & Sorting
- Comparing Numbers
- Comparing Objects
- Counting by Tens
- Counting Forward & Backward
- Counting to 10
- Counting to 20
- Counting to 100
- Describe Shapes
- Dice Addition
- Dice Subtraction
- Equal Equations
- Fact Families
- Flat or Solid Shapes
- Make a Ten
- Measurable Attributes
- Measurement
- Missing Addends
- Money (US, Canadian, & Australian)
- Number Words
- Patterns



- Shape Names (2D & 3D)
- Shape Positions
- Story Problems
- Subitizing
- Subtraction to 10
- Tally Marks to 20
- Tally Marks to 100
- Telling Time
- Ten Frames
- What Comes Before & After
- What Comes Between
- Working with Teen Numbers

*Skills will be modified and adjusted based on student's needs and ability. First grade math skills will also be introduced based on students' proficiency level.

*30-40 sessions total based on class size and duration of class

HIGHLIGHTS OF KMIND MATH CURRICULUM:

- The curriculum is developed based on a spiral approach in which concepts will be introduced, revisited, elevated, expanded, and challenged throughout the entire curriculum.
- Combining the methods of Singapore Math (focus on the concrete-pictorial-abstract method) and Beast Academy (an interactive program that challenges students to think about math concepts in a deeper way) to provide students a well-balanced learning opportunity.
- Include math talk, math logic puzzles, growth-mindset, and real-life, scenario-based math activities for almost every session to bring the purpose and value of learning math to life.
- Using the "I do, We do, You do" modeling teaching strategy to support and motivate students in the most age-appropriate way while still challenging them enough.

EXAMPLE OF OUTLINE——GK MATH, PART 1, SESSION 5

California State Standards

- Represent addition and subtraction with objects, fingers, mental images, drawings,2 sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

Session	Growth Mindset	Logic Puzzles	Math Talks
Session 5 Rational Math Word Problems are regarded as a vital part in the Mathematics curriculum as it enhances the student's mental skill, develops logical analysis, and boosts creative thinking.	Developing a Growth Mindset • Instead of... Think of	• Guess My Number	Math Talk • Which one is Different?
	Math Activity • Addition Equations • Addition Word Problems Singapore Math • Word Problems	Learning Outcome Students will be able to add and subtract numbers using mental math, using visuals and solve addition and subtraction word problems	Homework Addition Word Problems