TPSD Grade 1 Math Syllabus
Units 1-4, First Nine Weeks

Unit 1: **Solve Addition and Subtraction Problems to 10**

Unit Summary: Topic 1 expands on what students learned in KIndergarten about addition and subtraction. Students develop a deep understanding of addition and subtraction by working on "add to", "put together", "take from", "take apart", and "compare" problems.
Math Talks in First Grade are designed to provide students with opportunities to continue to build fluency with numbers up to ten and develop beginning addition strategies.

Performance Skills:

- ❑ **I can solve word problems about adding to.**
- ❑ **I can solve word problems about putting together.**
- ❑ **I can solve word problems by breaking apart the total number of objects.**
- ❑ **I can solve word problems that involve taking from a group.**
- ❑ **I can solve word problems that involve comparing.**
- ❑ **I can use addition or subtraction to find a missing addend.**
- ❑ **I can construct math arguments using addition and subtraction.**
- ❑ **I can determine the unknown number that is needed to make an equation true. (ex: 8 + __ = 11)**

Academic Vocabulary/Words to Understand:
add, sum, plus, equals, is the same as, equation, parts, whole, subtract, difference, minus, more, fewer, argument, construct, fluency

Unit 2: **Fluently Add and Subtract Within 10**

Unit Summary: Topic 2 extends what students learned related to solving addition and subtraction problems to 10. Students will use strategies to develop fluency with adding and subtracting within 10. These strategies include counting on and counting back using doubles and near doubles, adding with 5, adding to 10, adding in any order, and thinking addition to subtract.
Math Talks in this unit consist of three to five problems, labeled sequentially of A, B, C etc. The sequence of problems within a given number/math talk allows students to apply the strategies from previous problems to subsequent problems.

Performance Skills:

- ❑ **I can add by counting on from a number.**
- ❑ **I can use doubles to solve problems.**
- ❑ **I can solve problems using near doubles facts.**
- ❑ **I can use a ten-frame to help solve addition facts with 5 and 10.**
- ❑ **I can use the same addends to write two different equations with the same numbers.**
- ❑ **I can count back to solve subtraction problems.**
- ❑ **I can use addition facts I know to help solve subtraction problems.**
- ❑ **I can use addition facts to 10 to solve subtraction problems.**
- ❑ **I can draw pictures and write equations to help solve word problems.**
- ❑ **I can look for patterns and use structure to solve problems.**

Academic Vocabulary/Words to Understand:
number line, doubles fact, near doubles fact, missing part

Unit 3: Addition Facts to 20: Using Strategies

Unit Summary: Topic 3 extends what students learned related to solving addition and subtraction problems to 10. Students will adapt strategies from Topic 2, as well as the strategy of "making 10" to add within 20.
The Commutative property of addition (8 + 3 = 11, so 3 + 8 = 11) and the Associative property of addition (2 + 6 + 4 = 2 + 10 = 12) will be strategies used in addition and subtraction.

Performance Skills:

- ❑ **I can count on to add using a number line.**
- ❑ **I can count on to add using an open number line.**
- ❑ **I can memorize doubles facts.**
- ❑ **I can use double fats to solve double + 1 facts and to solve double + 2 facts.**
- ❑ **I can make 10 to add numbers to 20.**
- ❑ **I can solve addition problems using different strategies.**
- ❑ **I can solve different types of addition word problems.**
- ❑ **I can critique the thinking of others by using what I know about addition and subtraction.**

Academic Vocabulary/Words to Understand:
number line, open number line, counting on, double, near double, double + 1, double + 2, make 10, sum, "is the same as"

Unit 4: **Subtraction Facts to 20: Using Strategies**

Unit Summary: This topic introduces students to several key strategies for solving subtraction facts to 20. These strategies include counting to subtract, making 10 to subtract, and using addition to subtract. These strategies will serve students by encouraging a deeper and more conceptual understanding of the relationship between addition and subtraction.
Students are demonstrating fluency for addition and subtraction within 10.

Performance Skills:

- ❑ **I can subtract using a number line.**
- ❑ **I can make subtraction easier by making 10 to subtract.**
- ❑ **I can count on to subtract using 10 as a landmark.**
- ❑ **I can make addition and subtraction facts using the same three numbers.**
- ❑ **I can use addition facts to find subtraction facts.**
- ❑ **I can explain the strategies I use to solve subtraction problems.**
- ❑ **I can solve different kinds of addition and subtraction problems.**
- ❑ **I can use reasoning to write and solve number stories.**

Academic Vocabulary/Words to Understand:
landmark, number stores, related facts, fact family