

Math Goals for Remote Learning - 2020

(This is more detailed than what is presented on the slides)

The highlighted information listed after the grade level indicates the farthest you could have been at the end of Trimester 2 had you been able to teach a full lesson a day from day one. It is included so you can put into perspective the impossibility of completing the work for the entire year. It is critical that students have a variety of strategies in their toolkit.

Transitional Kindergarten

Count to 5 (or 10)

One to one correspondence

Talk about math

Kindergarten (End of Tri 2 - mid Module 4)

Module 4 (videos available)

Count to 20 with cardinality

Know sums to 10, find missing addends, solve subtraction by finding the missing addend (counting up to 10) or by taking away counters.

Knows "equal" as "the same," not as the answer; knows $2+3=4+1$ are the same quantities.

Talk about math

1st Grade (End of Tri 2 - mid Module 4)

Module 4 (videos available)

(Do not worry about Module 5. While very important to the understanding of mathematics, Module 4 is meatier and more complex. Don't worry about Module 6. It is basically the same as Module 4, but with larger numbers and a handful of other things. If students leave 1st grade solid on Module 4, they will survive 2nd grade.)

Facts to 20 from memory or by using strategies

"Tens" as a unit - compose and decompose 10s

Place value - Tens and ones

Compare numbers using place value

Hide-Ten (Place-Value) cards

Add a two-digit numbers to a two-digit number (no recomposing, no sums greater than 59)

Use Tape Diagrams* in the following situations:

put-together/take-apart with total or addend unknown

add-to with result or change unknown problems

take-from with result or change unknown problems

Talk about math

2nd Grade (End of Tri 2 - mid Module 6)

Module 5 - most critical (no videos)

Facts to 20 are solid, from memory or using other strategies

Place value to 999, bundling/unbundling

Develop and strengthen multiple strategies for addition and subtraction with bundling and unbundling to 999

Two-step word problems (w/ tape diagrams*) in the following situations:
the three types from 1st grade

add-to/take-from with start unknown

compare with difference unknown

compare with the "bigger" unknown

compare with the "smaller" unknown

Module 6 - only if dead-on solid on Module 5 (videos available)

Count multiples easily

Make arrays to count multiples

3rd Grade (End of Tri 2 - 3/4 through Module 5)

Module 3 (no videos)

Multiplication facts & strategies to 10x10. If they don't know their facts easily, they must have other strong strategies such as:

Skip counting and using arrays

Distributive property

Commutative property

Associative property

Understand the relationship between multiplication and division

Use skip counting and tape diagrams to solve division problems

Solve word problems for equal groups or arrays of objects for:

Unknown products

Group size or number of groups unknown

Rows or columns unknown

Module 5

Topic A & B (videos available)

Identify/represent fractions multiple ways (number bonds, area models, and tape diagrams too)

Count fractions

Compare fractions by numerator or denominator using area models, fraction strips, number lines, and tape diagrams

Compose/decompose fractions greater than one

*Tape-Diagram Presentations will be made available on the Alisal Remote Instruction Site as soon as possible

4th Grade (End of Tri 2 - mid Module 5)

Module 1 & 3 (no videos)

Place value to 1000s

Rounding

Standard algorithms for addition/subtraction

Strategies for multi-digit multiplication

➤ Solve word problems involving multiplicative comparisons

Module 5 Topics A-F (videos available)

Represent a fraction as repeated addition of a unit fraction and as multiplying a unit fraction by a whole number

Compare fractions with the same numerator or denominator

Compare unrelated fractions using fraction strips, tape diagrams, benchmark fractions, area models, and multiplication

➤ Create equivalent fractions, including mixed numbers, using fraction strips, tape diagrams, area models, and multiplication

Order fractions

Add and subtract of fractions of like units (just like whole numbers)

Add/subtract fractions (with like units) greater than 1

5th Grade (End of Tri 2 - beginning of Module 5)

Module 1-3 (no videos)

Understand multiplicative patterns of the base-ten place-value system

Round decimal fractions

Add and subtract decimal fractions

Multiply multi-digit whole numbers and decimal fractions using the distributive property, partial products, and the standard algorithm

➤ Solve word problems involving multiplicative comparisons

Divide 3 and 4-digit numbers by 2-digit divisors

Divide decimal fractions by 2-digit divisors

➤ Create equivalent fractions (by multiplication and other strategies)

Add fractions with unlike units by creating equivalent fractions

Module 4 Topics A-E & G (no videos)

Model fractions as division using tape diagrams*

Multiply whole numbers by fractions using tape diagrams*

Multiply fractions by fractions

Use tape diagrams* to solve word problems involving fractions

➤ Use tape diagrams* to solve multiplicative comparisons

Divide whole numbers by unit fractions

Divide unit fractions by a whole numbers

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6th Grade (End of Tri 2 - 3/4 through Module 4)

Module 1 (no videos)

- Understand ratios as multiplicative comparisons of two or more numbers
- Find equivalent ratios
- Solve equations using the value of a ratio
- Find rates
- Percent, fractions as percents, percent of a quantity
- Solve word problems involving ratios, rates, and percents

Modules 2-3 (no videos)

- Divide fractions by whole numbers and whole numbers by fractions
- Divide fractions by fractions
- Add, subtract, and multiply decimal fractions
- Divide whole numbers using the standard algorithm
- Order and compare integers and other rational numbers
- Compute distance on the coordinate plane

Module 4 (videos available)

- Understand the interrelationship of the four operations
- Use the order of operations and variables when solving problem
 - Write addition and subtraction expressions
 - Write multiplication and division expressions

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