

Mathematics Resource Guide for Elementary Educators School Year 2020-2021

Ordering Similar Objects by Measurable Attributes (Pre-K, Kindergarten,1)

<https://earlymath.erikson.edu/ordering-similar-objects-by-measurable-attributes/>

<https://www.khanacademy.org/math/cc-1st-grade-math/cc-1st-measurement-geometry>

<https://www.khanacademy.org/math/cc-1st-grade-math/cc-1st-measurement-geometry/copy-of-cc-early-math-length-intro/e/order-by-length?modal=1>

Place Value

Place Value – How to Assess Understanding (Grades 1-2) Marilyn Burns

3 super tips for teaching place value

<https://mrelementarymath.com/teaching-place-value/>

Brown bag Centers for teaching place value

<https://brownbagteacher.com/place-value-1st-grade-centers/>

Tens and Ones Activities

https://www.google.com/search?rlz=1C1GCEA_enUS845US845&sxsrf=ALeKk03FYWcOeEQ7nEFpqs4fJCm28L_uqQ:1587516835450&q=tens+and+ones+activities&sa=X&ved=2ahUKEwja0rSI6froAhVHh-AKHURVDVwQ1QIoBH0ECBEQBQ&biw=1280&bih=610

Place value song youtube

https://www.google.com/search?rlz=1C1GCEA_enUS845US845&sxsrf=ALeKk03FYWcOeEQ7nEFpqs4fJCm28L_uqQ:1587516835450&q=place+value+song&sa=X&ved=2ahUKEwja0rSI6froAhVHh-AKHURVDVwQ1QIoBnoECBEQBw&biw=1280&bih=610

Khan Academy Place Value

Grade 1

<https://www.khanacademy.org/math/cc-1st-grade-math/cc-1st-place-value>

Grade 2

<https://www.khanacademy.org/math/cc-2nd-grade-math/cc-2nd-place-value>

Addition and Subtraction

Khan Academy

Add within 5

<https://www.khanacademy.org/math/arithmetic/arith-review-add-subtract/arith-review-basic-add-subtract/v/basic-addition>

Grade 1

<https://www.khanacademy.org/math/cc-1st-grade-math/cc-1st-add-subtract>

Grade 2

<https://www.khanacademy.org/math/cc-2nd-grade-math/cc-2nd-add-subtract-100>

<https://www.khanacademy.org/math/cc-2nd-grade-math/cc-2nd-add-subtract-1000>

Grade 3

<https://www.khanacademy.org/math/cc-third-grade-math/imp-addition-and-subtraction>

The Owl Teacher

<https://theowlteacher.com/teaching-addition-and-subtraction-strategies/>

Addition and Subtraction Facts Strategies

<https://community.ksde.org/LinkClick.aspx?fileticket=n2ZHaEprfs%3D&tabid=6036&mid=14879>

Activities for Adding and Subtracting Fractions with Like Denominators

<https://ideagalaxyteacher.com/adding-subtracting-fractions-like-denominators/>

Adding and Subtracting Fractions

<http://www.math.com/school/subject1/lessons/S1U4L3GL.html>

Adding and Subtracting Fractions Games for the Classroom

<https://www.weareteachers.com/fraction-games/>

Free Fractions Games

<https://www.teacherspayteachers.com/Browse/prek-12-subject-area/fractions/Price-Range/Free/Type-of-Resource/Games>

Multiplication

How to teach Multiplication in 6 Easy Steps

<https://www.prodigygame.com/blog/how-to-teach-multiplication/>

30 Hands-On Ways to Teach Multiplication

<https://www.weareteachers.com/22-fun-hands-on-ways-to-teach-multiplication/>

Multiplying Whole Numbers and Decimals

<http://www.themathpage.com/Arith/multiply-whole-numbers-multiply-decimals.htm>

Multiplication of Fractions Worksheets

https://www.google.com/search?rlz=1C1GCEA_enUS845US845&sxsrf=ALeKk02POTv9Yim8u1tL1WRpzwNd1Q04dg:1587673766211&q=multiplying+fractions+worksheets+pdf&tbm=isch&source=univ&sa=X&ved=2ahUKEwiEq-rWsf_oAhVMJt8KHYIMBAgQsAR6BAgKEAE&biw=1280&bih=610

Videos on Multiplication

<https://www.youtube.com/watch?v=v1lh3-mDPUk>

Multiplying three digits by two digits

https://www.youtube.com/watch?v=SuC_ufEOHQc

Multiplying a fraction by a whole number (Khan Academy)

<https://www.khanacademy.org/math/arithmetic-home/arith-review-fractions/mult-unit-frac/v/multiplying-fractions-and-whole-numbers>

Multiplying fractions

<https://www.google.com/search?q=videos+on+how+to+multiply+fractions&oq=videos+on+how+to+multiply&aqs=chrome.0.0j69i57j0l6.7086j0j7&sourceid=chrome&ie=UTF-8>

Measurement

Five Hands-On Strategies for Teaching Measurement to Elementary Students

<https://www.kidsacademy.mobi/storytime/strategies-teach-measurements/>

Elementary Measurement

<https://www.teachervision.com/elementary-mathematics-measurement>

Taking Teaching Measurement from Drab to Fab

<https://beneylu.com/pssst/en/taking-teaching-measurement-from-drab-to-fab/>

Activities for Teaching Measurement of Length

<https://www.brighthubeducation.com/lesson-plans-grades-3-5/62389-teaching-unit-of-length-measurement/>

Measuring Length Video for Grade 1

<HTTPS://WWW.YOUTUBE.COM/WATCH?V=FTB5VU64YGA>

Measuring Liquid Volume

<https://lessonresearch.net/content-resource/measuring-liquid-volume/>

Understand Volume and How It is Measured

https://learnzillion.com/lesson_plans/7163-understand-volume-and-how-volume-is-measured/

Measurement of Time

<https://www.teachervision.com/measurement-time-0>

Measuring Time Activities

<https://study.com/academy/lesson/measuring-time-activities.html>

Florida's B.E.S.T. Standards in Mathematics

New Mathematics Standards for Florida to be implemented in 2022-2023 School Year

<http://www.fl DOE.org/core/fileparse.php/18736/urlt/StandardsMathematics.pdf>

B.E.S.T. Standards Focus Areas by Grade K-8 (These are the skills that will be taught in Florida schools starting in 2022-2023 school year.)

- Kindergarten Focus:

In Kindergarten, instructional time will emphasize three areas: (1) developing an understanding of counting to represent the total number of objects in a set and to order the objects within a set; (2) developing an understanding of addition and subtraction and the relationship of these operations to counting and (3) measuring, comparing and categorizing objects according to various attributes, including their two- and three-dimensional shapes.

- Grade 1 Focus:

In grade 1, instructional time will emphasize four areas: (1) understanding the place value of tens and ones within two-digit whole numbers; (2) extending understanding of addition and subtraction and the relationship between them; (3) developing an understanding of measurement of physical objects, money and time and (4) categorizing, composing and decomposing geometric figures.

- Grade 2 Focus:

In grade 2, instructional time will emphasize four areas: (1) extending understanding of place value in three-digit numbers; (2) building fluency and algebraic reasoning with addition and subtraction; (3) extending understanding of measurement of objects, time and the perimeter of geometric figures and (4) developing spatial reasoning with number representations and two-dimensional figures.

- Grade 3 Focus:

In grade 3, instructional time will emphasize four areas: (1) adding and subtracting multi-digit whole numbers, including using a standard algorithm; (2) building an understanding of multiplication and division, the relationship between them and the

connection to area of rectangles; (3) developing an understanding of fractions and (4) extending geometric reasoning to lines and attributes of quadrilaterals.

- Grade 4 Focus:

In grade 4, instructional time will emphasize four areas: (1) extending understanding of multi-digit multiplication and division; (2) developing the relationship between fractions and decimals and beginning operations with both; (3) classifying and measuring angles and (4) developing an understanding for interpreting data to include mode, median and range.

In grade 5, instructional time will emphasize five areas: (1) multiplying and dividing multi-digit whole numbers, including using a standard algorithm; (2) adding and subtracting fractions and decimals with procedural fluency, developing an understanding of multiplication and division of fractions and decimals; (3) developing an understanding of the coordinate plane and plotting pairs of numbers in the first quadrant; (4) extending geometric reasoning to include volume and extending of the understanding of data to include mean.

- Grade 6 Focus

In grade 6, instructional time will emphasize five areas: (1) performing all four operations with integers, positive decimals and positive fractions with procedural fluency; (2) exploring and applying concepts of ratios, rates and percent to solve problems; (3) creating, interpreting and using expressions and equations; (4) extending geometric reasoning to plotting points on the coordinate plane, area and volume of geometric figures and (5) extending understanding of statistical thinking.

- Grade 7 Focus

In grade 7, instructional time will emphasize five areas: (1) recognizing that fractions, decimals and percentages are different representations of rational numbers and performing all four operations with rational numbers with procedural fluency; (2) creating equivalent expressions and solving equations and inequalities; (3) developing understanding of and applying proportional relationships in two variables; (4) extending analysis of two- and three-dimensional figures to include circles and cylinders and (5) representing and comparing categorical and numerical data and developing understanding of probability.

- Grade 8 Focus

In grade 8, instructional time will emphasize six areas: (1) representing numbers in scientific notation and extending the set of numbers to the system of real numbers, which includes irrational numbers; (2) generate equivalent numeric and algebraic expressions including using the Laws of Exponents; (3) creating and reasoning about linear relationships including modeling an association in bivariate data with a linear equation; (4) solving linear equations, inequalities and systems of linear equations; (5) developing an understanding of the concept of a function

and (6) analyzing two-dimensional figures, particularly triangles, using distance, angle and applying the Pythagorean Theorem.

Teaching Math Courses Offering In-Service Points

PDA Facilitated Course (Free)

Differentiating Mathematics Instruction 30 in-service points offered a minimum of twice a year

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