

## MATH / 1st Grade

|  | digital games |  |
| :---: | :---: | :---: |
|  | Create shapes with defining attributes | CCSS.MATH.1.G.G. 1 |
|  | Compose 2-and 3-dimensional shapes from other shapes | CCSS.MATH.1.G.A. 2 |
|  | Partition circles and squares into equal parts to represent halves, fourths, and quarters | CCSS.MATH.1.G.A. 3 |
|  | KIT-ReQuired game |  |
|  | Identify and manipulate shapes | CCSS.MATH.1.G.A |
| Measurement \& Data | dIGITAL GAMES |  |
|  | Order and compare the length of 3 objects | CCSS.MATH.1.MD.A. 1 |
|  | Understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps | CCSS.MATH.1.MD.A. 2 |
|  | Tell and write time in hours and half-hours using analog and digital clocks | CCSS.MATH.1.MD.B. 3 |
|  | Organize, represent, compare and interpret data with up to three categories | CCSS.MATH.1.MD.C. 4 |
|  | KIT-REQUIRED GAME |  |
|  | Measure length, time, and data | CCSS.MATH.1.MD |
| Number \& Operations inBase Ten | digital games |  |
|  | Count to 120 starting on any given number and represent those numbers with objects or numerals | CCSS.MATH.1.NBT.A. 1 |
|  | Identify the 10 s and 15 s in a 2 -digit number | CCSS.MATH.1.NBT.B. 2 |
|  | Compare two 2-digit numbers using $\geqslant,=$, and $<$ | CCSS.MATH.1.NВT.B. 3 |
|  | Add within 100, regrouping if necessary | CCSS.MATH.1.NBT.C. 4 |
|  | Use mental math strategies to add or subtract 10 from any number | CCSS.MATH.1.NBT.C. 5 |
|  | Subtract multiples of 10 in the range 10-90 | CCSS.MATH.1.NBT.C. 6 |
|  | KIT-ReQuired game |  |
|  | Add and subtract within 100 | CCSS.MATH.1.NBT |
|  | digital games |  |
|  | Represent and solve problems involving addition and subtraction within 20 | CCSS.MATH.1.OA.A. 1 |
|  | Use objects, drawings, or equations with a symbol for an unknown number to represent an addition or subtraction problem within 20. | CCSS.MATH.1.OA.A. 2 |
|  | Apply the commutative and associative properties to add within 20 | CCSS.MATH.1.OA.B. 3 |
|  | Use addition strategies to subtract | CCSS.MATH.1.OA.B. 4 |
|  | Count on to add and count back to subtract | CCSS.MATH.1.OA.C. 5 |
|  | Use various strategies to demonstrate fluency in addition and subtraction within 10, and use those to add and subtract within 20 | CCSS.MATH.1.OA.C. 6 |
| $\sqrt{2}$ | Determine if equations involving addition and subtraction are true or false (demonstrate understand the concept of an equal sign) | CCSS.MATH.1.OA.D. 7 |
| Operations: Algebraic Thinking | Find a missing number that makes an equation true for number sentences within 20 | CCSS.MATH.1.OA.D. 8 |
|  | KIT-Required game |  |
|  | Add and subbract fluently within 20 | CCSS.MATH.1.OA |

VIEW ADDITIONAL RELATED GAMES

DIGITAL GAMES

| Understand that shapes and their attributes |
| :--- |
| Partition shapes into parts with equal areas |


| KIT-REQURED GAME |
| :--- |
| Identify shapes by their specific attributes |

CCSSS.MATH.3.G.A.1
CCSS.MATH.3.G.A. 2

|  | DIGITAL GAMES |  |
| :---: | :---: | :---: |
|  | Measure time, volume, and mass using standard units | ccss.math.3.MD.A |
|  | Tell and write time to the nearest minute and measure time intervals in minutes; represent a time problem using intervals (ex: a number line) | ccss.math.3.MD.A. 1 |
|  | Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (1) | CCSS.MATH.З.MD.A. 2 |
|  | Create and interpret bar and picture graphs with several categories | ccss.math.3.MD.B. 3 |
|  | Measure and record the length of objects using a line plot to represent wholes, halves and fourths of an inch | ccss.math.3.MD.B. 4 |
|  | Recognize area as an attribute of plane figures | CCSS.MATH.3.MD.C. 5 |
|  | Measure areas by counting unit squares (arrays) | ccss.math.3.MD.C. 6 |
|  | Relate multiplication and addition using area models | ccss.math.3.MD.C. 7 |
|  | Distinguish between and calculate area and perimeter in real-world and mathematical settings | ccss.math.3.MD.D. 8 |
|  | KIT-REQUIRED GAMES <br> Identify and apply the concepts of area and perimeter | CCSS.MATH.3.MD |
| Measurement\& Data | Represent and interpret data using bar/ picture graphs and line plots | CCSS.MATH.3.MD.B |
| Number \& Operations inBase Ten | digital games |  |
|  | Round whole numbers to the nearest 10 or 100 using place value | ccss.math.3.NBt.A. 1 |
|  | Fluently add and subtract within 1000 using strategies and algorithms | ccss.math.3.nbt.a. 2 |
|  | Multiply one-digit whole numbers by multiples of 10 | ccss.math.3.NBT.A. 3 |
|  | KIT-REQUIRED GAME |  |
|  | Place value to complete operations within 1000 | CCSS.MATH.3.NBT |


| Number \& Operations: Fractions | DIGITAL GAMES |  |
| :---: | :---: | :---: |
|  | Understand fractions as quantities based on division | CCSS.MATH.3.NF.A. 1 |
|  | Understand fractions as a place on a number line | CCSS.MATH.3.NF.A. 2 |
|  | Understand fractions as a size relative to a whole | CCSS.MATH.3.NF.A. 3 |
|  | KIT-REQUIRED GAME |  |
|  | Understand fractions using various representations | CCSS.MATH.J.NF.A |

and distributive properties of militileation
Understand division as the inverse of multiplication ex: CCSS.MATH 3 as
as an unknown-factor problem as an unknown-factor problem) Fluently multiply and divide within 100 using strategies, CCSS.MATH.3.OA.C. 7
pronerties 1 and relationshios properties and relationships
Solve and represent two-step word problems using the CCSS.MATH.3.OA.D. 8 four operations
Identify arithmetic patterns and explain them using CCSS.MATH.3.OA.D. 9 foperations
KIT-REQUIRED GAME
Multioly and divide wh
Multiply and divide whole numbers


|  | digital games |  |
| :---: | :---: | :---: |
|  | Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models; generate equivalent fractions | CCSS.MATH.4.NF.A. 1 |
|  | Compare two fractions with different numerators and different denominators | CCSS.MATH.4.NF.A. 2 |
|  | Understand a fraction $a / b$ with $a>1$ as $a$ sum of fractions 1/b | cCSS.MATH.4.NF.B. 3 |
|  | Multiply a fraction by a whole number | CCSS.MATH.4.NF.B. 4 |
|  | Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 | CCSS.MATH.4.NF.C. 5 |
|  | Use decimal notation for fractions with denominators 10 or 100 | CCSS.MATH.4.NF.C. 6 |
| Number \& Operations: Fractions | Compare two decimals to hundredths by reasoning about their size, and record the results with the symbols >, $=$, or < | cCSS.MATH.4.NF.C. 7 |
|  | KIT-REQUIRED GAME <br> Understand and explain fractions and decimals | CCSS.MATH.4.NF |


|  | digital games |  |
| :---: | :---: | :---: |
|  | Interpret a multiplication equation as a comparison | CCSS.MATH.4.OA.A. 1 |
|  | Multiply or divide to solve word problems involving multiplicative comparison use the known to determine the unknown) | CCSS.MATH.4.OA.A. 2 |
|  | Solve multistep multiplication and division word problems posed with whole numbers using the four operations | CCSS.MATH.4.OA.A. 3 |
| $\sqrt{2}$ | Find all factor pairs for a whole number in the range 1-100; distinguish between prime and composite numbers | CCSS.MATH.4.OA.B. 4 |
| Operations \& | Generate and analyze patterns that follow a given rule | CCSS.MATH.4.OA.C. 5 |
| Algebraic Thinking | KIT-REQUIRED GAME <br> Multiply and divide fluently using strategies | CCSS.MATH.4.OA |



VIEW ADDITIONAL RELATED GAMES



|  | DIGITAL GAMES |  |
| :---: | :---: | :---: |
|  | Expressions \& equations: know and apply the properties of integer exponents to generate equivalent numerical expressions | CCSS.MATH.8.EE.A. 1 |
|  | Evaluate square roots of small perfect squares and cube roots of small perfect cubes | CCSS.MATH.8.EE.A. 2 |
| $1+2=$ | Use numbers expressed as single digit times a power of 10 to estimate large or small quantities | CCSS.MATH.8.EE.A. 3 |
|  | Perform operations with numbers in scientific notation; know when to use scientific notation | CCSS.MATH.8.EE.A. 4 |
| Expressions \& Equations | KIT-REQUIRED GAME |  |
|  | Evaluate expressions and equations | CCSS.MATH.8.EE.A |
|  | KIT-REQUIRED GAME <br> Use functions to model relationships between quantities | CCSS.MATH.8.F.B |
|  | digital games |  |
|  | Verify the properties of rotations, reflections, and translations through experimentation | CCSS.MATH.8.G.A. 1 |
|  | Describe a sequence of transformations that exhibits the congruence between two figures | CCSS.MATH.8.G.A. 2 |
|  | Describe effect of dilations, translations, rotations, reflections on 2 -d figures using coordinates | CCSS.MATH.8.G.A. 3 |
|  | Given two similar 2-d figures, describe a sequence of transformations that exhibits similarity | CCSS.MATH.8.G.A. 4 |
|  | Use informal arguments to establish facts about angles | CCSS.MATH.8.G.A. 5 |
|  | Explain a proof of the Pythagorean Theorem and its converse | CCSS.MATH.8.G.B. 6 |
|  | Apply the Pythagorean Theorem to determine unknown side lengths in right triangles | CCSS.MATH.8.G.B. 7 |
|  | Apply the Pythagorean Theorem to find the distance between two points in a coordinate system | CCSS.MATH.8.G.B. 8 |
|  | Know and apply the formulas for the volumes of cones, cylinders, and spheres | CCSS.MATH.8.G.C. 9 |
|  <br> Geometry | KIT-Required games |  |
|  | Understand congruence and similarity | CCSS.MATH.8.G.A |
|  | Understand and apply the Pythagorean Theorem | CCSS.MATH.8.G.B |
|  | Understand when and how to calculate volume for solid objects | CCSS.MATH.8.G.C |
|  | Understand when and how to calculate volume for solid objects | CCSS.MATH.8.G.C |
| $\frac{-4}{-4-4}$ | digital games |  |
|  | Understand informally that every number has a decimal expansion | CCSS.MATH.8.NS.A. 1 |
|  | Use rational approximations of irrational numbers to compare, locate, and estimate values | CCSS.MATH.8.NS.A. 2 |
| TheNumber System | KIT-REQUIRED GAME <br> Understand and calculate with rational and irrational numbers | CCSS.MATH.8.NS.A |
| dIGITAL GAMES <br> Construct/interpret scatter plots for bivariate data; <br> CCSS.MATH.8.SP.A. 1 investigate association between 2 quantities |  |  |
|  |  |  |
|  | Informally fit a straight line in a scatter plot; use to assess relationships between data points | CCSS.MATH.8.SP.A. 2 |
|  | Use linear equation model to solve bivariate measurement data problems; interpret slope/intercept | CCSS.MATH.8.SP.A. 3 |
| Statistics \& Probability | Construct/interpret a 2 -way table summarizing data on two categorical variables from same subjects | CCSS.MATH.8.SP.A. 4 |
|  | KIT-REQUIRED GAME |  |
|  | Understand bivariate data | CCSS.MATH.8.SP.A |

