This document identifies bridging standards in the 2016 *Mathematics Standards of Learning.* Bridging standards allow for the identification of content that can be connected when planning instruction and promote deeper student understanding.

Bridge icon Bridging standards (indicated by bold text in the grade level column below) are ones that meet one or more of the following criteria:

* Functions as a bridge to which other content within the grade level/course is connected, either horizontally or vertically;
* Serves as prerequisite knowledge for content to be addressed in future grade levels/courses; or
* Possesses endurance beyond a single unit of instruction within a grade level/course.

The selection of content focus areas, potential connections, and the sequencing of content in this document serve as examples only and are intended to assist with curricular development.

| **Grade 2**  **Content Focus**  **Areas** | **Prerequisite Knowledge**  **(Linked to JIT Quick Checks)**  **Grade K** | **Prerequisite Knowledge**  **(Linked to JIT Quick Checks)**  **Grade 1** | **Grade 2**  **(Linked to Just in Time Mathematics Quick Checks)** | **.** | **Possible Grade 2 Connections Across Content Focus Areas** | **Possible Future Grade Level/Course Content Connections** |
| --- | --- | --- | --- | --- | --- | --- |
|  | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3d](https://www.doe.virginia.gov/home/showpublisheddocument/24252/638085488629030000) | [1.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24316/638085146120000000), [1.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24320/638085160211200000), [1.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24328/638085163392470000) | [**2.2a**](https://www.doe.virginia.gov/home/showpublisheddocument/24438/) **Count forward by twos, fives, and tens to 120, starting at various multiples of 2, 5, or 10** |  | Problem Solving | Multiplication  (Grade 3) |
|  | [K.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24244/638085485996830000) | [1.1c](https://www.doe.virginia.gov/home/showpublisheddocument/24324/638085161208730000) | [**2.2b**](https://www.doe.virginia.gov/home/showpublisheddocument/24442/) **Count backward by tens from 120** |  | Problem Solving | Place Value (Grade 3) |
| **Determining and Representing Quantities** |  |  | [2.2c](https://www.doe.virginia.gov/home/showpublisheddocument/24446/) Use objects to determine whether a number is even or odd |  | Patterns | Even/Odd with Larger Numbers (Grade 5) |
|  | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24244/638085485996830000), [K.3c](https://www.doe.virginia.gov/home/showpublisheddocument/24248/638085487579800000) | [1.3](https://www.doe.virginia.gov/home/showpublisheddocument/24344/638085172658200000) | [2.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24450/) Count and identify the ordinal positions first through twentieth, using an ordered set of objects |  | Order Numbers | Patterns (Grade 3) |
|  | [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000) | [1.3](https://www.doe.virginia.gov/home/showpublisheddocument/24344/638085172658200000) | [2.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24454/) Write the ordinal numbers 1st through 20th |  | Order Numbers | Patterns (Grade 3) |
|  | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3d](https://www.doe.virginia.gov/home/showpublisheddocument/24252/638085488629030000) | [1.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24316/638085146120000000), [1.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24320/638085160211200000), [1.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24328/638085163392470000), [1.5a](https://www.doe.virginia.gov/home/showpublisheddocument/24358/638085189454830000), [1.5b](https://www.doe.virginia.gov/home/showpublisheddocument/24364/638085199487800000) | [**2.1a**](https://www.doe.virginia.gov/home/showpublisheddocument/24422/) **Read, write, and identify the place and value of each digit in a three-digit numeral, with and without models** |  | Problem Solving | Place Value with Larger Numbers (Grade 3) |
| **Identifying, Comparing, and Ordering Quantities** | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3c](https://www.doe.virginia.gov/home/showpublisheddocument/24248/638085487579800000), [K.3d](https://www.doe.virginia.gov/home/showpublisheddocument/24252/638085488629030000) | [1.1a,](https://www.doe.virginia.gov/home/showpublisheddocument/24316/638085146120000000) [1.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24328/638085163392470000), [1.5a](https://www.doe.virginia.gov/home/showpublisheddocument/24358/638085189454830000), [1.5b](https://www.doe.virginia.gov/home/showpublisheddocument/24364/638085199487800000) | [**2.1b**](https://www.doe.virginia.gov/home/showpublisheddocument/24426/) **Identify the number that is 10 more, 10 less, 100 more, and 100 less than a given number up to 999** |  | Problem Solving | Place Value/Addition and Subtraction (Grade 3) |
|  | [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000) | [1.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24336/638085170184000000), [1.2c](https://www.doe.virginia.gov/home/showpublisheddocument/24340/638085171384400000) | [**2.1c**](https://www.doe.virginia.gov/home/showpublisheddocument/24430/) **Compare and order whole numbers between 0 and 999** |  | Interpret Data | Compare/Order Larger Numbers (Grade 3) |
|  |  |  | [2.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24434/) Round two-digit numbers to the nearest ten |  | Problem Solving | Round to Hundreds (Grade 3) |
|  | [K.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24256/638085489779670000), [K.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24262/638085493252500000), [K.6](https://www.doe.virginia.gov/home/showpublisheddocument/24268/638085495386370000) | [1.6](https://www.doe.virginia.gov/home/showpublisheddocument/24366/638085199994530000) | [**2.5a**](https://www.doe.virginia.gov/home/showpublisheddocument/24470/) **Recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20** |  | Solve Data Problems | Properties of Number (Grade 3) |
|  | [K.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24256/638085489779670000), [K.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24262/638085493252500000) | [1.7a](https://www.doe.virginia.gov/home/showpublisheddocument/24370/638085200824670000), [1.7b](https://www.doe.virginia.gov/home/showpublisheddocument/24374/638085201853170000) | [**2.5b**](https://www.doe.virginia.gov/home/showpublisheddocument/24474/) **Demonstrate fluency with addition and subtraction within 20** |  | Solve Data Problems | Computation  (Grade 3) |
| **Developing Computational Fluency and Solving Problems** | [K.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24256/638085489779670000), [K.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24262/638085493252500000), | [1.7a](https://www.doe.virginia.gov/home/showpublisheddocument/24370/638085200824670000), [1.7b](https://www.doe.virginia.gov/home/showpublisheddocument/24374/638085201853170000) | [**2.6a**](https://www.doe.virginia.gov/home/showpublisheddocument/24478/) **Estimate sums and differences** |  |  | Estimation with Larger Numbers  (Grade 3) |
|  | [K.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24256/638085489779670000), [K.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24262/638085493252500000), | [1.7a](https://www.doe.virginia.gov/home/showpublisheddocument/24370/638085200824670000), [1.7b](https://www.doe.virginia.gov/home/showpublisheddocument/24374/638085201853170000) | [**2.6b**](https://www.doe.virginia.gov/home/showpublisheddocument/24482/) **Determine sums and differences, using various methods** |  | Interpret Data | Compute with Larger Numbers  (Grade 3) |
|  | [K.6](https://www.doe.virginia.gov/home/showpublisheddocument/24268/638085495386370000) | [1.6](https://www.doe.virginia.gov/home/showpublisheddocument/24366/638085199994530000) | [**2.6c**](https://www.doe.virginia.gov/home/showpublisheddocument/24486/) **Create and solve single-step and two-step practical problems involving addition and subtraction** |  | Interpret data | Solve Multi-Step Problems  (Grade 3) |
|  |  | [1.15](https://www.doe.virginia.gov/home/showpublisheddocument/24414/638085348534230000) | [**2.17**](https://www.doe.virginia.gov/home/showpublisheddocument/24544/) **Demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol** |  | Patterns | Equality with Larger Numbers and with Multiplication/ Division (Grade 3) |
| **Noticing, Describing, and Creating Patterns** | [K.12](https://www.doe.virginia.gov/home/showpublisheddocument/24304/638085501503070000), [K.13](https://www.doe.virginia.gov/home/showpublisheddocument/24308/638085502048630000) | [1.13](https://www.doe.virginia.gov/home/showpublisheddocument/24406/638085339767300000), [1.14](https://www.doe.virginia.gov/home/showpublisheddocument/24410/638085347514270000) | [2.16](https://www.doe.virginia.gov/home/showpublisheddocument/24540/) Identify, describe, create, extend, and transfer patterns found in objects, pictures, and numbers |  | Ordinal Numbers | Identify Missing Terms; Apply Input/ Output Rules (+/-)  (Grade 3) |
|  | [K.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24296/638085500210870000) | [1.12a](https://www.doe.virginia.gov/home/showpublisheddocument/24400/638085336034670000) | [2.15a](https://www.doe.virginia.gov/home/showpublisheddocument/24532/) Collect, organize, and represent data in pictographs and bar graphs |  | Count and Compare numbers | Collect/Represent Data with Increased Data Points/Categories  (Grade 3) |
| **Using Data to Describe My World** | [K.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24296/638085500210870000) | [1.12a](https://www.doe.virginia.gov/home/showpublisheddocument/24400/638085336034670000) | [**2.15b**](https://www.doe.virginia.gov/home/showpublisheddocument/24536/) **Read and interpret data represented in pictographs and bar graphs** |  | Count and Compare Numbers | Analyze and Interpret Increased Number of Data Points/Categories  (Grade 3) |
|  | [K.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24296/638085500210870000) | [1.12a](https://www.doe.virginia.gov/home/showpublisheddocument/24400/638085336034670000) | [2.14](https://www.doe.virginia.gov/home/showpublisheddocument/24528/) Use data from probability experiments to predict outcomes when the experiment is repeated |  | Read/Write/Compare Numbers | Describe the Degree of Likelihood (Grade 3) |
|  | [K.5](https://www.doe.virginia.gov/home/showpublisheddocument/24264/638085493702770000) | [1.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24350/638085175704600000), [1.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24354/638085177053830000) | [**2.4a**](https://www.doe.virginia.gov/home/showpublisheddocument/24458/) **Name and write fractions represented by a set, region, or length model for halves, fourths, eighths, thirds, and sixths** |  |  | Name/Write Proper and Improper Fractions/Mixed Numbers  (Grade 3) |
| **Naming, Representing and Comparing Parts of a Whole** | [K.5](https://www.doe.virginia.gov/home/showpublisheddocument/24264/638085493702770000) | [1.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24350/638085175704600000), [1.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24354/638085177053830000) | [**2.4b**](https://www.doe.virginia.gov/home/showpublisheddocument/24462/) **Represent fractional parts with models and with symbols** |  |  | Represent Proper and Improper Fractions/ Mixed Numbers  (Grade 3) |
|  | [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000) | [1.2c](https://www.doe.virginia.gov/home/showpublisheddocument/24340/638085171384400000), [1.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24354/638085177053830000) | [**2.4c**](https://www.doe.virginia.gov/home/showpublisheddocument/24466/) **Compare the unit fractions for halves, fourths, eighths, thirds, and sixths, with models** |  |  | Compare Fractions with Like and Unlike Denominators  (Grade 3) |
|  | [K.9](https://www.doe.virginia.gov/home/showpublisheddocument/24280/638085497818430000) | [1.10](https://www.doe.virginia.gov/home/showpublisheddocument/24386/638085322176930000) | [**2.8a**](https://www.doe.virginia.gov/home/showpublisheddocument/24498/) **Estimate and measure length to the nearest inch** |  | Round numbers | Measure to Nearest ½ Inch (Grade 3) |
|  | [K.9](https://www.doe.virginia.gov/home/showpublisheddocument/24280/638085497818430000) | [1.10](https://www.doe.virginia.gov/home/showpublisheddocument/24386/638085322176930000) | [**2.8b**](https://www.doe.virginia.gov/home/showpublisheddocument/24502/) **Estimate and measure weight to the nearest pound** |  | Round numbers | Measure Weight (mass) in Metric Units  (Grade 4) |
| **Using Measurement to Describe My World** | [K.9](https://www.doe.virginia.gov/home/showpublisheddocument/24280/638085497818430000) | [1.9a](https://www.doe.virginia.gov/home/showpublisheddocument/24382/638085320571330000) | [**2.9**](https://www.doe.virginia.gov/home/showpublisheddocument/24550/) **Tell time and write time to the nearest five minutes, using analog and digital clocks** |  | Count by fives | Time to Nearest Minute  (Grade 3) |
|  | [K.8](https://www.doe.virginia.gov/home/showpublisheddocument/24276/638085496912400000) | [1.9b](https://www.doe.virginia.gov/home/showpublisheddocument/24418/638085349355270000) | [2.10a](https://www.doe.virginia.gov/home/showpublisheddocument/24504/) Determine past and future days of the week |  | Order numbers, ordinal numbers | Equivalent Periods of Time (Grade 3) |
|  | [K.8](https://www.doe.virginia.gov/home/showpublisheddocument/24276/638085496912400000) | [1.9b](https://www.doe.virginia.gov/home/showpublisheddocument/24418/638085349355270000) | [2.10b](https://www.doe.virginia.gov/home/showpublisheddocument/24510/) Identify specific days and dates on a given calendar |  | Order numbers, ordinal numbers | Equivalent Periods of Time (Grade 3) |
|  | [K.7](https://www.doe.virginia.gov/home/showpublisheddocument/24272/638085496273500000) | [1.8](https://www.doe.virginia.gov/home/showpublisheddocument/24378/638085314955670000) | [**2.7a**](https://www.doe.virginia.gov/home/showpublisheddocument/24490/) **Count and compare a collection of pennies, nickels, dimes, and quarters whose total value is $2.00 or less** |  | Count by ones, fives, tens | Count Collections of Greater Value; Make Change (Grade 3) |
|  | [K.7](https://www.doe.virginia.gov/home/showpublisheddocument/24272/638085496273500000) | [1.8](https://www.doe.virginia.gov/home/showpublisheddocument/24378/638085314955670000) | [**2.7b**](https://www.doe.virginia.gov/home/showpublisheddocument/24494/) **Use the cent symbol, dollar symbol, and decimal point to write a value of money** |  | Place value understanding | Represent Money Values and Change  (Grade 3) |
|  | [K.9](https://www.doe.virginia.gov/home/showpublisheddocument/24280/638085497818430000) | [1.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24328/638085163392470000) | [2.11](https://www.doe.virginia.gov/home/showpublisheddocument/24512/) Read temperature to the nearest 10 degrees |  | Round numbers, Count by multiples of ten | Read Temperature to Nearest Degree  (Grade 3) |
|  |  |  | [2.12a](https://www.doe.virginia.gov/home/showpublisheddocument/24516/) Draw a line of symmetry in a figure |  |  | Congruency  (Grade 3) |
| **Describing the Figures in My World** |  |  | [2.12b](https://www.doe.virginia.gov/home/showpublisheddocument/24520/) Identify and create figures with at least one line of symmetry |  |  | Congruency (Grade 3) |
|  | [K.10a](https://www.doe.virginia.gov/home/showpublisheddocument/24284/638085498433470000), [K.10b](https://www.doe.virginia.gov/home/showpublisheddocument/24288/638085499066570000) | [1.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24390/638085324415400000), [1.11b](https://www.doe.virginia.gov/home/showpublisheddocument/24394/638085330131170000) | [2.13](https://www.doe.virginia.gov/home/showpublisheddocument/24524/) Identify, describe, compare, and contrast plane and solid figures |  | Patterns | Congruency; Compose/ Decompose Shapes (Grade 3) |

NOTE: Calendar should be included as part of the daily routines at this grade level. Once concepts have been introduced, many will need to be revisited throughout the year.