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 1**  **Content Focus Areas** | **Prerequisite Knowledge**  **(Linked to Early Childhood Standards)**  **Grade Pre-K** | **Prerequisite Knowledge**  **(Linked to JIT Quick Checks)**  **Grade K** | **Grade 1**  **(Linked to Just in Time Mathematics Quick Checks)** | **.** | **Possible Grade 1 Connections Across Content Focus Areas** | **Possible Future Grade Level/Course Content Connections** |
| --- | --- | --- | --- | --- | --- | --- |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3c](https://www.doe.virginia.gov/home/showpublisheddocument/24248/638085487579800000) | [**1.1a**](https://www.doe.virginia.gov/home/showpublisheddocument/24316/638085146120000000) **Count forward orally by ones to 110, starting at any number between 0 and 110** |  | Problem Solving | Count by Twos, Fives, Tens to 120 (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.3d](https://www.doe.virginia.gov/home/showpublisheddocument/24252/638085488629030000) | [1.1d](https://www.doe.virginia.gov/home/showpublisheddocument/24328/638085163392470000) **Count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110** |  | Determine Value of Sets of Like Coins | Determine Value of Mixed Set of Coins (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [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) | [**1.2a**](https://www.doe.virginia.gov/home/showpublisheddocument/24334/638085169581170000) **Group a collection into tens/ones and write the corresponding numeral** |  | Problem Solving | Place Value (Grade 2) |
| **Counting, Comparing and Representing Quantities** | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [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) **Compare two numbers between 0 and 110 represented pictorially or with concrete objects, , using the words *greater than, less than* or *equal to*** |  | Data | Compare Larger Numbers/Sets (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [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) **Order three or fewer sets from least to greatest and greatest to least** |  | Data | Order Larger Numbers/Sets (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24244/638085485996830000) | [1.5a](https://www.doe.virginia.gov/home/showpublisheddocument/24358/638085189454830000) select a reasonable order of magnitude from three given quantities: a one-digit numeral, a two-digit numeral, and a three-digit numeral |  | Problem Solving | Estimation (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000), [K.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24244/638085485996830000) | [1.5b](https://www.doe.virginia.gov/home/showpublisheddocument/24364/638085199487800000) Explain the reasonableness of the choice |  | Problem solving | Estimation (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000) | [**1.1b**](https://www.doe.virginia.gov/home/showpublisheddocument/24320/638085160211200000) **Write numerals 0 to 110 in sequence/out-of-sequence** |  | Patterns | Write Larger Numbers (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.3b](https://www.doe.virginia.gov/home/showpublisheddocument/24244/638085485996830000), [K.3c](https://www.doe.virginia.gov/home/showpublisheddocument/24248/638085487579800000) | [1.1c](https://www.doe.virginia.gov/home/showpublisheddocument/24324/638085161208730000) Count backwards orally when given any number between 1-30 |  | Problem Solving | Computation (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.3a](https://www.doe.virginia.gov/home/showpublisheddocument/24240/638085485223330000) | [1.3](https://www.doe.virginia.gov/home/showpublisheddocument/24344/638085172658200000) Given an ordered set of ten objects and/or pictures, will indicate the ordinal position of each object, first through tenth |  | Patterns | Patterns (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.3 | [K.10a](https://www.doe.virginia.gov/home/showpublisheddocument/24284/638085498433470000), [K.10c](https://www.doe.virginia.gov/home/showpublisheddocument/24292/638085499742430000), [K.12](https://www.doe.virginia.gov/home/showpublisheddocument/24304/638085501503070000) | [1.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24390/638085324415400000) Identify, trace, describe, and sort plane figures according to number of sides, vertices, and angles |  | Patterns | Characteristics of Additional Geometric Shapes (Grade 2) |
| **Using Attributes to Compare, Sort, and Order** | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.3 | [K.10a](https://www.doe.virginia.gov/home/showpublisheddocument/24284/638085498433470000), [K.10b](https://www.doe.virginia.gov/home/showpublisheddocument/24288/638085499066570000), [K.10c](https://www.doe.virginia.gov/home/showpublisheddocument/24292/638085499742430000) | [1.11b](https://www.doe.virginia.gov/home/showpublisheddocument/24394/638085330131170000) Identify and describe representations of circles, squares, rectangles, and triangles in different environments, regardless of orientation, and explain reasoning |  | Patterns | Characteristics of Additional Geometric Shapes (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.4 | [K.12](https://www.doe.virginia.gov/home/showpublisheddocument/24304/638085501503070000) | [**1.13**](https://www.doe.virginia.gov/home/showpublisheddocument/24406/638085339767300000) **Sort and classify concrete objects according to one or two attributes** |  | Patterns | Characteristics of Additional Geometric Shapes (Grade 2) |
| **Using Data to Describe My World** | N/A | [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000), [K.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24296/638085500210870000) | [**1.12a**](https://www.doe.virginia.gov/home/showpublisheddocument/24400/638085336034670000)Collect, organize, and represent various forms of data using tables, picture and object graphs |  | Count, Compare and Order Numbers | Bar Graphs (Grade 2) |
|  | N/A | [K.2a](https://www.doe.virginia.gov/home/showpublisheddocument/24232/638085483492530000), [K.2b](https://www.doe.virginia.gov/home/showpublisheddocument/24236/638085484224630000), [K.11a](https://www.doe.virginia.gov/home/showpublisheddocument/24296/638085500210870000) | [**1.12b**](https://www.doe.virginia.gov/home/showpublisheddocument/24402/638085336935300000) **Read and interpret data displayed in tables, picture graphs, and object graphs, using the vocabulary *more, less, fewer, greater than, less than,* and *equal to*** |  | Count and Compare Numbers | Bar Graphs (Grade 2) |
| **Noticing, Describing, and Creating Patterns** | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.4 | [K.12](https://www.doe.virginia.gov/home/showpublisheddocument/24304/638085501503070000), [K.13](https://www.doe.virginia.gov/home/showpublisheddocument/24308/638085502048630000) | [1.14](https://www.doe.virginia.gov/home/showpublisheddocument/24410/638085347514270000) Identify, describe, extend, create, and transfer growing and repeating patterns |  | Ordering Numbers | Patterns with Greater Complexity (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.3d](https://www.doe.virginia.gov/home/showpublisheddocument/24252/638085488629030000) | [1.9b](https://www.doe.virginia.gov/home/showpublisheddocument/24418/638085349355270000) Read and interpret a calendar |  | Patterns | Tell Time/Time Equivalencies (Grade2) |
| **Using Whole Numbers to Measure and Describe My World** | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1a](https://www.doe.virginia.gov/home/showpublisheddocument/24224/638085478324970000), [K.7](https://www.doe.virginia.gov/home/showpublisheddocument/24272/638085496273500000) | [1.8](https://www.doe.virginia.gov/home/showpublisheddocument/24378/638085314955670000) Determine the value of a collection of like coins (pennies, nickels, or dimes) whose total value is 100 cents or less |  | Count | Determine Value of Mixed Collection of Coins to $2.00  (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.1 | [K.1b](https://www.doe.virginia.gov/home/showpublisheddocument/24228/638085482025770000) | [**1.9a**](https://www.doe.virginia.gov/home/showpublisheddocument/24382/638085320571330000) **Tell time to hour and half-hour, using analog and digital clocks** |  | Fractions (halves) | Time to Nearest Five Minutes (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.5 | [K.9](https://www.doe.virginia.gov/home/showpublisheddocument/24280/638085497818430000) | [1.10](https://www.doe.virginia.gov/home/showpublisheddocument/24386/638085322176930000) Use nonstandard units to measure and compare length, weight, and volume |  | Count and Compare Whole Numbers | Measure with Standard Units (Grades 2 and 3) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.2 | [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) **Recognize and describe with fluency part-whole relationships for numbers to 10** |  |  | Fluency with Addition/Subtraction to 20 (Grade 2) |
| **Understanding and Using Number Relationships to Solve Problems** | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.2 | [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) **Create and solve single-step story and picture problems using addition and subtraction within 20** |  | Interpret Data | Solve Multi-Step Addition/ Subtraction Problems Involving 2-Digit Numbers  (Grade 2) |
|  | [ELDS](https://www.doe.virginia.gov/home/showpublisheddocument/421/637890605072570000) CD3.2 | [K.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24256/638085489779670000), [K.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24262/638085493252500000) | [**1.7b**](https://www.doe.virginia.gov/home/showpublisheddocument/24374/638085201853170000) **Demonstrate fluency with addition and subtraction within 10** |  |  | Fluency with Addition/Subtraction to 20 (Grade 2) |
|  | N/A | N/A | [**1.15**](https://www.doe.virginia.gov/home/showpublisheddocument/24414/638085348534230000) **Demonstrate an understanding of equality through the use of the equal symbol** |  |  | Identify Equivalent and Nonequivalent Values and Expressions  (Grade 2) |
| **Understanding Parts of a Whole** | N/A | [K.5](https://www.doe.virginia.gov/home/showpublisheddocument/24264/638085493702770000) | [1.4a](https://www.doe.virginia.gov/home/showpublisheddocument/24350/638085175704600000) Represent and solve practical problems involving equal sharing with two or four sharers |  | Part-whole Relationships | Develop Understanding of Unit Fractions  (Grade 2) |
|  | N/A | [K.5](https://www.doe.virginia.gov/home/showpublisheddocument/24264/638085493702770000) | [1.4b](https://www.doe.virginia.gov/home/showpublisheddocument/24354/638085177053830000) Represent and name fractions for halves and fourths, using models |  |  | Develop Understanding of Unit Fractions  (Grade 2) |

\* *Virginia's Early Learning and Development Standards, Birth to Five Learning Guidelines* were implemented in fall 2021.

NOTE: Calendar should be included as part of the daily routines at this grade level. Once concepts have been introduced, many (i.e., place value, problem solving, equality, and developing fluency with part-whole relationships) will need to be revisited throughout the year.