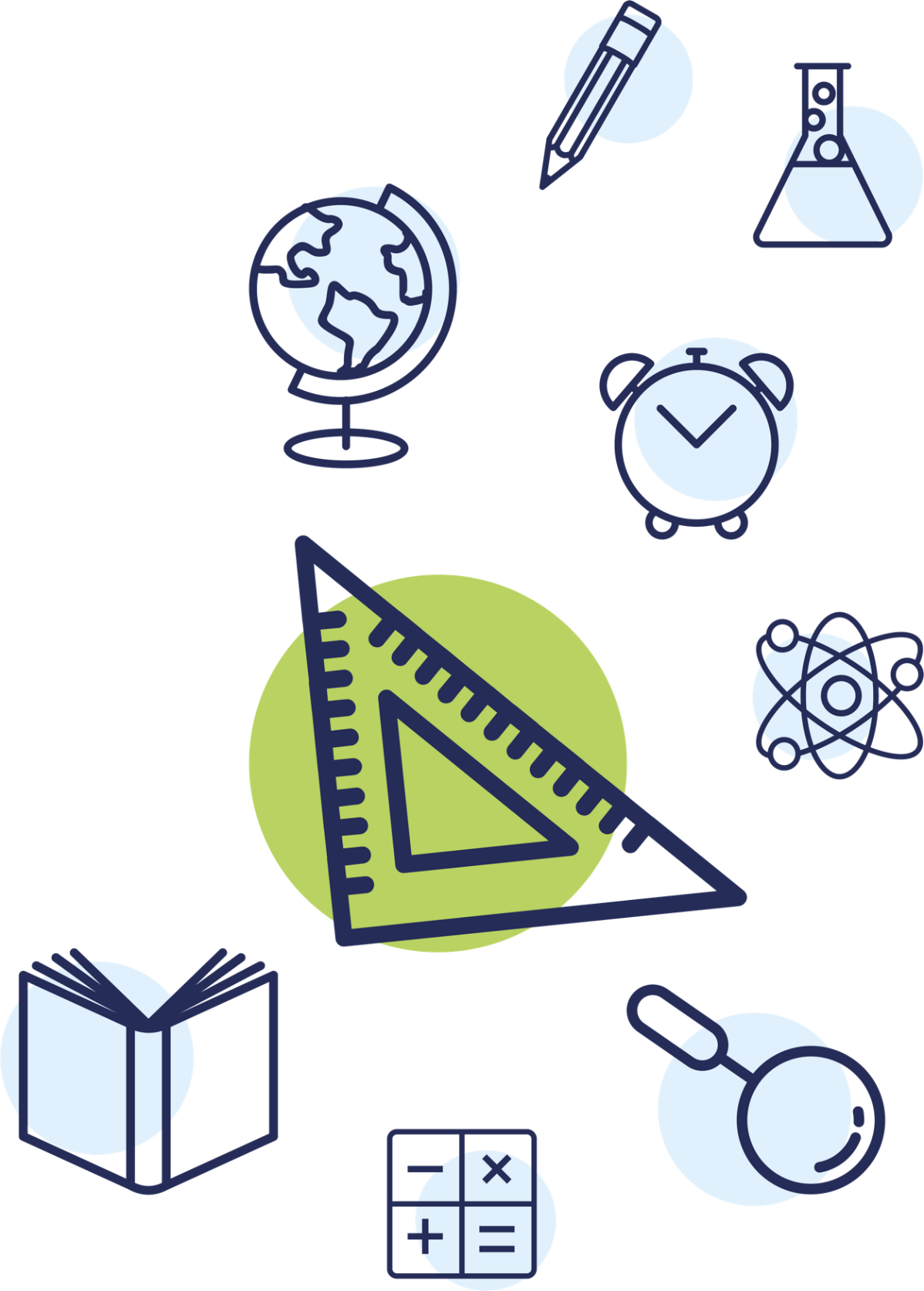
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SUGGESTED

**INSTRUCTIONAL**

**PLANNING GUIDE**

*for the Mississippi College- and Career-Readiness Standards*

**q Mathematics**

|  |
| --- |
| **Kindergarten** |

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**Mississippi Department of Education**359 North West Street

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Jackson, Mississippi 39205-0771

(601) 359-3513

[www.mdek12.org](http://www.mdek12.org)

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| --- | --- |
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**Special Acknowledgements**

Bailey Education Group

The Kirkland Group

**INTRODUCTION**

The unprecedented, nationwide school closures in the spring of 2020 due to the COVID-19 pandemic have created a shift in how districts plan for school re-entry. Instead of the traditional brick-and-mortar planning, administrators are now identifying models that will support a variety of instructional delivery scenarios as they plan for school reopening. The traditional methods of planning and delivery are nearly impossible to implement as a stand-alone model; instead, innovative educators are developing and identifying strategies and resources to support a variety of distance learning scenarios as part of their plans. When using new models of delivery, it is important to recognize that the traditional approach to remediation—providing work better suited for earlier grades—may be insufficient. Instead, the conventional approach to remediation will likely compound the problem educators are trying to correct. According to a 2018 study, [The Opportunity Myth[[1]](#footnote-2)](https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf), the approach of “meeting students where they are”, while often well-intended, only widens the achievement gap. Instead of remediation, teachers and administrators are encouraged to look toward acceleration methods to support student growth and close the gaps.

**PURPOSE**

The purpose of the *Suggested Mississippi College- and Career-Readiness Standards Instructional Planning Guides* is to provide a *SUGGESTED* guide to assist teachers in planning rigorous, coherent lessons that focus on the critical content of each grade level. Providing curriculum guidance through intentional standard grouping and consideration for the time needed to address different objectives, should encourage consistent instruction that fully aligns to the Mississippi College- and Career-Readiness Standards. The use of this guide can also foster collaborative planning across schools and districts throughout the state.

**DEVELOPMENT**

The following planning and subsequent grouping of standards were determined through a collaborative process among state-level content specialists. By connecting standards through common conceptual understandings and relationships, the expectation is that conceptual connections will promote a cohesive process and avoid the teaching of standards in isolation. Additionally, it promotes a deeper understanding and a more authentic acquisition of mathematical knowledge and skills. The Standards for Mathematical Practices (SMPs) presented are those suggested to be highlighted within the respective standard; however, this does not exclude the inclusion of other SMPs. The standards determined as “**priority**” have been bolded and are standards identified as critical to the mastery of other standards. A standard’s “**priority**” status does *NOT* have a direct correlation with test item frequency. Additionally, some standards may appear multiple times throughout the course with a portion of the standard highlighted to depict that only that portion of the standard is to be taught within that unit.

**RESOURCES FOR CONSIDERATION**

The resources listed below may be referenced to support classroom teachers in the development of lesson plans and instruction at the local level. This list is not meant to be exhaustive, rather it represents consultative resources that align with the Units/Themes provided in the Instructional Planning Guides. Educators are encouraged to use these resources in addition to those curriculum materials that meet the needs of the students they serve.

| High-Quality Instructional Materials (HQIM) | Instruction and Planning Resources | Standards for Mathematical Practices (SMPs) | Assessment  Resources | Professional Development |
| --- | --- | --- | --- | --- |
| * [MS HQIM Defined](https://mdek12.org/HQIM) * [MS Adopted HQIM (Textbooks)](https://www.mdek12.org/caravan2019) * [enVision Mathematics 2020 Correlation to the MS CCRS K-5](https://assets.savvas.com/correlations/MS_2016_enVMS2020_K-5.pdf?_ga=2.245827716.1280125487.1593455317-1093477658.1593035292) * [MHE My Math Learning Solution](https://s3.amazonaws.com/ecommerce-prod.mheducation.com/unitas/school/explore/sites/mymath/mcgraw-hill-my-math-learning-solution.pdf) * [Great Minds (Eureka Math) Teacher Resource Pack](https://eurekamath.greatminds.org/teacher-resource-pack) * [Great Minds Alignment to MSCCRS](https://greatminds.org/resources/products/mississippi-standards-alignment-study) | * [Achieve the Core Coherence Map-K Math](https://achievethecore.org/coherence-map/K) * [Standards Dependency and Flow View](http://jeffbaumes.github.io/standards/) * *Scaffolding Instruction for ELLs* * [Achieve the Core CCR Shifts in Mathematics](https://achievethecore.org/content/upload/SAP_ShiftsAtAGlance_02.pdf) * [Standards Progressions for Mathematics Progression Documents](http://ime.math.arizona.edu/progressions/) * [SFUSD Manipulatives List](http://www.sfusdmath.org/manipulatives.html) * [Printable Manipulatives](https://www.mathematicalpractices.com/mp1e/content/printable-manipulatives/) * [Achieve the Core Instructional Practice Guide K-8](https://achievethecore.org/category/1155/printable-versions) * [Mississippi Exemplar Units and Lesson Plans-Grade K Math](https://www.mdek12.org/sites/default/files/documents/OAE/OEER/Exemplar%20Units/math/Kindergarten-Math-Unit.pdf) * [Mississippi CCRS Exemplar Lesson Plans](https://mdek12.org/ESE/math/lesson-plans) * [LearnZillion Instructional Videos](https://learnzillion.com/wikis/99913-math-instructional-videos/) * [HCPSS Family Mathematics Support Center-Kindergarten](https://hcpss.instructure.com/courses/34447/pages/grade-k-star-mathematics-overview) * [MS CCRS Scaffolding Documents](https://mdek12.org/ese/ccr) * [Access for All Guidance](https://mdek12.org/sites/default/files/documents/OAE/OAE/2019-access-for-all-guide.pdf) * [MDE Family Guides for Student Success](https://mdek12.org/OAE/OEER/FamilyGuidesEnglish)\*   (Alternative Language: [Spanish](https://mdek12.org/OAE/OEER/FamilyGuidesSpanish))  *\*This resource can be used for standards reinforcement of previous grades.* | * [Illustrative Mathematics Understanding the Standards for Mathematical Practices (SMPs)](http://tasks.illustrativemathematics.org/practice-standards/) * [Inside Mathematics Mathematical Practice Standards](https://www.insidemathematics.org/common-core-resources/mathematical-practice-standards) * [Inside Mathematics Mentors of Mathematical Practice](https://www.insidemathematics.org/common-core-resources/mentors-of-mathematical-practice) | * [Illustrative Mathematics Kindergarten Tasks](http://tasks.illustrativemathematics.org/content-standards/K) * [Goalbook Pathways Grade K](https://goalbookapp.com/pathways/?ref=topic" \l "!/browse-topics/math/K) | * [MDE Professional Development Resources](https://www.mdek12.org/OPD/home) * [MARS Prototype Professional Development Modules](https://www.map.mathshell.org/pd.php) * [NCTM Professional Development Resources](https://www.nctm.org/Conferences-and-Professional-Development/Professional-Development-Resources/) * [Inside Mathematics Classroom Videos](https://www.insidemathematics.org/classroom-videos) * [NCTM Math Forum](https://www.nctm.org/tmf/mathed/mathed.research.new.html) * [Great Minds (Eureka) Webinars](https://eurekamath.greatminds.org/webinar-library) * [Using Manipulatives in the Classroom](https://www.teachervision.com/professional-development/using-manipulatives) |
| Applets, Demos, Interactives, and Virtual Manipulatives | | | | |
| * [CPM Tiles](https://technology.cpm.org/general/tiles/) * [Didax Virtual Manipulatives](https://www.didax.com/math/virtual-manipulatives.html) * [Didax Free Activity Guides for Virtual Manipulatives](https://www.didax.com/virtual-manipulatives-activities) * [GeoGebra Virtual Manipulatives](https://www.geogebra.org/m/NPDu3rCm) * [Houghton Mifflin and Harcourt iTools](https://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/common/itools_int_9780547584997_/main.html) * [Math Playground Math Manipulatives](https://www.mathplayground.com/math_manipulatives.html) * [McGraw Hill (Glencoe) Virtual Manipulatives](http://www.glencoe.com/sites/common_assets/mathematics/ebook_assets/vmf/VMF-Interface.html) * [The Math Learning Center Math Apps](https://www.mathlearningcenter.org/apps) * [Toy Theatre Virtual Manipulatives](https://toytheater.com/category/teacher-tools/virtual-manipulatives/) * [Visnos Mathematical Demonstrations](https://www.visnos.com/demos) | | | | |

| **TERM 1**  **UNIT OF STUDY**  (REAL-WORLD APPLICATION) **q** | **MS CCR STANDARDS q** | **STANDARDS FOR MATHEMATICAL  PRACTICE (SMPs) q** | CORE ACADEMIC **VOCABULARY TERMS q** |
| --- | --- | --- | --- |
| **Unit 1: Number Names and Counting Sequence: Understanding the value of 0-10**  (This foundational skill allows students to understand numbers to represent a value and the sequence as it increases from 0-10. Understanding 0-10 will build the concept for understanding the repeat of number sequence in each place value from 0-100.) | **K.CC.1 Count to 100 by ones and by tens.**  (Begin counting from 0 to 10) | * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Ones  Order  Sequence  Sequential Order  Value  Zero -Ten |
|  | **K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0– 20 (with 0 representing a count of no objects).**  (Begin writing numbers and representing numbers from 0-10) | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Ten |
|  | **K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.**  **K.CC.4a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.**  **K.CC.4b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Ten |
|  | **K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.**  (Count to answer “How many?” 10 things…) | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  “How Many?”  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Ten |
| **Unit 2: Comparing Numbers (0-10)**  (Students learn the value of each digit and can determine that one number has a greater or lesser value than that of the other. This introduces the concept of number value.) | **K.CC.4c Understand that each successive number name refers to a quantity that is one larger.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Greater Than  Larger Than  Less Than  Order  Sequence  Sequential Order  Smaller Than  Value  Zero -Ten |
|  | **K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. \*** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Equal  Equal To  Greater Than  Larger Than  Less Than  Order  Sequence  Sequential Order  Smaller Than  Value  Zero -Ten |
|  | **K.CC.7 Compare two numbers between 1 and 20 presented as written numerals.**  (Compare two numbers between 1 and 10 as written num) | * **SMP 2** Reason abstractly and quantitatively. | Equal  Equal To  Greater Than  Larger Than  Less Than  Order  Sequence  Sequential Order  Smaller Than  Value  Zero -Ten |
| **Unit 3: Comparing Objects**  (Students learn the use of vocabulary terms such as small and smaller or heavy and heavier. They use this as a foundation for understanding qualitative data through a quantitative lens.) | K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. | * **SMP 7** Look for and make use of structure. | Heavy  Height  Length  Light  Long  Short  Tall  Weight  Wide  Width |
|  | K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of”/ “less of” the attribute and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter. | * **SMP 6** Attend to precision. * **SMP 7** Look for and make use of structure. | Heavy  Heavier  Height  Length  Light  Lighter  Long  Longer  Short  Shorter  Tall  Taller  Weight  Wide  Wider  Width |
|  | K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. \*\* | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. | Category  Classify  Sort |
| **Unit 4: Addition Up to a Sum 5**  (Foundation for Adding where student learn that combining two whole numbers will result in a whole number with a larger value. This skill will later evolve into the foundation for skip counting and multiplication.) | **K.OA.1 Represent addition and subtraction, in which all parts and whole of the problem are within 10, with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. \*\*\***  (Represent addition in which all parts and whole of the problem are within 5…) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Plus  Plus Sign  Sum |
|  | **K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). \*\*\***  (Decompose numbers less than or equal to 5 into pairs more than one way….) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Decompose  Plus  Plus Sign  Sum |
|  | **K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. \*\*\***  (For any number from 1 to 4, find the number that makes 5 when added to the given number..) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Missing Value  Number Sentence  Sum |
|  | **K.OA.5 Fluently add and subtract within 5.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Fluent  Fluently |
|  | **K.OA.2 Solve addition and subtraction word problems within 10 involving situations of adding to, taking from, putting together, and taking apart with unknowns in all positions by using objects or drawings to represent the problem. \*\*\***  (Solve addition word problems within 5 involving situations of adding to, putting together….) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 3** Construct viable arguments and critique the reasoning of others. * **SMP 4** Model with Mathematics. * **SMP 5** Use appropriate tools strategically. | Add  Altogether  Both  Combined  In All  Increase  Plus  Sum  Together  Total |

| **TERM 2**  **UNIT OF STUDY**  (REAL-WORLD APPLICATION) **q** | **MS CCR STANDARDS q** | **STANDARDS FOR MATHEMATICAL  PRACTICE (SMPs) q** | CORE ACADEMIC **VOCABULARY TERMS q** |
| --- | --- | --- | --- |
| **Unit 5: Number Names and Counting Sequence: Understanding the value of 0-20**  (This foundational skill allows students to understand numbers to represent a value and the sequence as it increases from 0-20. Understanding 0-20 will build the concept for understanding the repeat of number sequence in each place value from 0-100.) | **K.CC.1 Count to 100 by ones and by tens.**  (Begin counting from 0 to 20) | * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Ones  Order  Sequence  Sequential Order  Tens  Value  Zero -Twenty |
|  | **K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).** | * **SMP 7** Look for and make use of structure. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Twenty |
|  | **K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0– 20 (with 0 representing a count of no objects).** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Ones  Object  Order  Sequence  Sequential Order  Value  Zero -Twenty |
|  | **K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.**  **K.CC.4a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.**  **K.CC.4b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Twenty |
|  | **K.CC.5 Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  “How Many?”  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Ten |
| **Unit 6: Comparing Numbers (0-20)**  (Students learn the value of each digit and can determine that one number has a greater or lesser value than that of the other. This introduces the concept of number value.) | **K.CC.4c Understand that each successive number name refers to a quantity that is one larger.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Twenty |
|  | **K.CC.7 Compare two numbers between 1 and 20 presented as written numerals.** | * **SMP 2** Reason abstractly and quantitatively. | Equal  Equal To  Greater Than  Larger Than  Less Than  Order  Sequence  Sequential Order  Smaller Than  Value  Zero -Twenty |
| **Unit 7: Addition Up to a Sum of 10**  (Foundation for Adding where student learn that combining two whole numbers will result in a whole number with a larger value. This skill will later evolve into the foundation for skip counting and multiplication.) | **K.OA.1 Represent addition and subtraction, in which all parts and whole of the problem are within 10, with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Plus  Plus Sign  Sum |
|  | **K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).**  **\*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Decompose  Plus  Plus Sign  Sum |
|  | **K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Missing Value  Number Sentence  Sum |
|  | **K.OA.2 Solve addition and subtraction word problems within 10 involving situations of adding to, taking from, putting together, and taking apart with unknowns in all positions by using objects or drawings to represent the problem. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 3** Construct viable arguments and critique the reasoning of others. * **SMP 4** Model with Mathematics. * **SMP 5** Use appropriate tools strategically. | Add  Altogether  Both  Combined  In All  Increase  Plus  Sum  Together  Total |
|  | **K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones to understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8). \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Compose  Decompose  Ones  Sum  Tens |
| **Unit 8: Attributes of Simple Two-Dimensional Shapes**  (Students learn to identify and describe simple shapes: squares, circles, triangles, rectangles, and hexagons. This is a foundational skill for understanding the make-up of three-dimensional shapes and figures) | K.G.2 Correctly name shapes regardless of their orientations or overall size. | * **SMP 7** Look for and make use of structure. | Angle  Circles  Corner  Edge  Face  Flat  Hexagons  Rectangles  Side  Squares  Triangles |
|  | K.G.6 Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?” | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 3** Construct viable arguments and critique the reasoning of others. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. | Angle  Circles  Compose  Corner  Edge  Face  Flat  Hexagons  Rectangles  Side  Squares  Triangles |
|  | K.G.1 Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. | * **SMP 7** Look for and make use of structure. | Angle  Circles  Above  Behind  Below  Beside  Cone  Corner  Cube  Cylinder  Edge  Face  Flat  Hexagons  In Front Of  Next To  Rectangles  Side  Solid  Spheres  Squares  Triangles  Under |
| **Unit 9: Analyzing, Comparing, and Composing Two-Dimensional and Three-Dimensional Shapes**  (This is a foundational skill where students learn to differentiate between 2-D and 3-D figures. They expand their knowledge of 2-D shapes to understand that they make up more complex shapes or “solids”: cones, spheres, and cubes) | K.G.3 Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”). | * **SMP 7** Look for and make use of structure. | Angle  Circles  Cone  Corner  Cube  Cylinder  Edge  Face  Flat  Hexagons  Rectangles  Side  Solid  Spheres  Squares  Triangles |
|  | K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length). | * **SMP 6** Attend to precision. * **SMP 7** Look for and make use of structure. | Angle  Circles  Cone  Corner  Cube  Cylinder  Edge  Face  Flat  Hexagons  Rectangles  Side  Solid  Spheres  Squares  Triangles |
|  | K.G.5 Model objects in the world by drawing two-dimensional shapes and building three-dimensional shapes. \*\*\* | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. | Angle  Circles  Cone  Corner  Cube  Cylinder  Edge  Face  Flat  Hexagons  Model  Rectangles  Side  Solid  Spheres  Squares  Triangles |

| **TERM 3**  **UNIT OF STUDY**  (REAL-WORLD APPLICATION) **q** | **MS CCR STANDARDS q** | **STANDARDS FOR MATHEMATICAL  PRACTICE (SMPs) q** | CORE ACADEMIC **VOCABULARY TERMS q** |
| --- | --- | --- | --- |
| **Unit 10: Number Names and Counting Sequence: Understanding the value of 0-50**  (This foundational skill allows students to understand numbers to represent a value and the sequence as it increases from 0-50. Understanding 0-50 will build the concept for understanding the repeat of number sequence in each place value from 0-100.) | **K.CC.1 Count to 100 by ones and by tens.**  (Begin counting from 0 to 50) | * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Ones  Order  Sequence  Sequential Order  Tens  Value  Zero -Fifty |
|  | **K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.**  **K.CC.4a When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.**  **K.CC.4b Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Object  Ones  Order  Sequence  Sequential Order  Value  Zero -Fifty |
| **Unit 11: Comparing Numbers (0-50)**  (Students learn the value of each digit and can determine that one number has a greater or lesser value than that of the other. This introduces the concept of number value.) | **K.CC.4c Understand that each successive number name refers to a quantity that is one larger.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Greater than  Larger than  Less than  Order  Sequence  Sequential Order  Smaller than  Value  Zero -Fifty |
| **Unit 12: Subtraction within 5 with a Minuend up to a 5**  (After building the foundation for adding where students learn that combining two whole numbers will result in a whole number with a larger value. They learn the separation of a whole number value from a greater value will result in a value less than the greater value. This introduces the concept of opposite operations or inverse operations.) | **K.OA.1 Represent addition and subtraction, in which all parts and whole of the problem are within 10, with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. \*\*\***  (Represent subtraction in which all parts and whole of the problem are within 5…) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Difference  Minuend  Minus  Minus Sign  Plus  Plus Sign  Subtrahend  Sum |
|  | **K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation. \*\*\***  (For any number from 1 to 4, find the number that makes 5 when added to the given number..) | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Missing Value  Number Sentence  Sum |
|  | **K.OA.5 Fluently add and subtract within 5.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Fluent  Fluently |
|  | **K.OA.2 Solve addition and subtraction word problems within 10 involving situations of adding to, taking from, putting together, and taking apart with unknowns in all positions by using objects or drawings to represent the problem. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 3** Construct viable arguments and critique the reasoning of others. * **SMP 4** Model with Mathematics. * **SMP 5** Use appropriate tools strategically. | Add  Altogether  Both  Combined  Decrease  Difference  Fewer  Fewer Than  How Many More  How Much More  In All  Increase  Minus  Plus  Remains  Sum  Take Away  Together  Total |

| **TERM 4**  **UNIT OF STUDY**  (REAL-WORLD APPLICATION) **q** | **MS CCR STANDARDS q** | **STANDARDS FOR MATHEMATICAL  PRACTICE (SMPs) q** | CORE ACADEMIC **VOCABULARY TERMS q** |
| --- | --- | --- | --- |
| **Unit 13: Number Names and Counting Sequence: Understanding the value of 0-100**  (This foundational skill allows students to understand numbers to represent a value and the sequence as it increases from 0-100. Understanding 0-100 will build the concept for understanding the repeat of number sequence in each place value from 0-1000.) | **K.CC.1 Count to 100 by ones and by tens.** | * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Hundreds  Ones  Order  Sequence  Sequential Order  Tens  Value  Zero -One Hundred |
| **Unit 14: Comparing Numbers (0-100)**  (Students learn the value of each digit and can determine that one number has a greater or lesser value than that of the other. This introduces the concept of number value.) | **K.CC.4c Understand that each successive number name refers to a quantity that is one larger.** | * **SMP 2** Reason abstractly and quantitatively. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Count  Hundreds  Ones  Order  Sequence  Sequential Order  Tens  Value  Zero -One Hundred |
| **Unit 15: Subtraction within 10 with a Minuend up to a 10**  (After building the foundation for adding where students learn that combining two whole numbers will result in a whole number with a larger value. They learn the separation of a whole number value from a greater value will result in a value less than the greater value. This introduces the concept of opposite operations or inverse operations.) | **K.OA.1 Represent addition and subtraction, in which all parts and whole of the problem are within 10, with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Addition  Difference  Minuend  Minus  Minus Sign  Plus  Plus Sign  Subtrahend  Sum |
|  | **K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 4** Model with Mathematics. * **SMP 7** Look for and make use of structure. * **SMP 8** Look for and express regularity in repeated reasoning. | Addend  Missing Value  Number Sentence  Sum |
|  | **K.OA.2 Solve addition and subtraction word problems within 10 involving situations of adding to, taking from, putting together, and taking apart with unknowns in all positions by using objects or drawings to represent the problem. \*\*\*** | * **SMP 1** Make sense of problems and persevere in solving them. * **SMP 2** Reason abstractly and quantitatively. * **SMP 3** Construct viable arguments and critique the reasoning of others. * **SMP 4** Model with Mathematics. * **SMP 5** Use appropriate tools strategically. | Add  Altogether  Both  Combined  Decrease  Difference  Fewer  Fewer Than  How Many More  How Much More  In All  Increase  Minus  Plus  Remains  Sum  Take Away  Together  Total |

***\*Include groups with up to 10 objects.***

***\*\*Limit category counts to be less than or equal to 10.***

***\*\*\* Drawings need not show details but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)***

1. *https://tntp.org/assets/documents/TNTP\_The-Opportunity-Myth\_Web.pdf* [↑](#footnote-ref-2)