



Kindergarten Mathematics

Course Syllabus

Prince George's County Public Schools

Prerequisites: None

Course Description: In Kindergarten, instructional time should focus on two critical areas; (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

- (1) Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 - 2 = 5$. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.
- (2) Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

****The Standards for Mathematical Practice: The eight Standards for Mathematical Practice will be embedded in all mathematics instruction preK-12 and outline how students should think, reason, communicate and model mathematically. The eight practices are:**

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

** Details for each practice may be found at

http://mdk12.msde.maryland.gov/instruction/academies/resources/Mathematics/MathD1/Standards_for_Mathematical%20Practice.pdf

Fluency Definition: Skill in carrying out procedures flexibly, accurately, efficiently and appropriately.

Kindergarten Fluency Expectation: Students will be able to add and subtract within 10 and fluently within 5.

INSTRUCTOR INFORMATION:

NAME:

E-MAIL ADDRESS:

PLANNING TIME:

SCHOOL PHONE NUMBER:

CLASS INFORMATION:

COURSE NUMBER:

CLASS MEETS:

ROOM:

TEXT:

End of the Year Assessments:

GRADING POLICY:





Elementary Mathematics (Grades K and 1)

Overview: The goal of grading and reporting is to provide the students with feedback that reflects their progress toward the mastery of the indicators and objectives found in the Mathematics Curriculum Framework Progress Guide.

Teachers will determine the range of points for each assignment and place the assignment in SchoolMax; SchoolMax will then convert the points to a percentage and then the percentage will be converted to a grade of a PR, IP, or ND. **Example Scoring Rubric located after Grades K and 1

Factors	Brief Description	Grade Percentage Per Quarter
Class Work	This includes all work completed in the classroom setting. Class work must include, but is not limited to: <ul style="list-style-type: none">• Use of manipulatives• Graphic representations• Group work• Student discourse• Class assignments• Problem of the Week	55%
Homework	This includes all work completed outside the classroom to be graded on its completion. Assignments can include, but are not limited to: <ul style="list-style-type: none">• Written assignments (teacher made, Problem of the Week, text materials, ...)• Problem Solving (table setting, time problems, measurement, ...)• Observation of natural occurrences of mathematics (shapes, patterns, symmetry, ...)	5%
Assessments	This category encompasses both the traditional (paper and pencil exams) and alternative methods of assessing student learning with the goal of mastery. Assessments can include but are not limited to: <ul style="list-style-type: none">• Written exams and quizzes• Portfolios• Projects• Presentations• Problem of the Week• Anecdotal notes of teacher observation• Student interview	40%

Kindergarten and First Grade Scoring Rubric

Indicator on Child's Work	Teacher's Grade Book	Report Card Equivalent	Description
	9 or 10	PR Proficient 90 – 100%	Student can demonstrate indicator independently.
	8	IP In Process 80 – 89%	Student can demonstrate indicator with minimal adult support.
	7	EM Emerging 70 – 79%	Student demonstrates indicator occasionally with some adult support.
	5 or 6	ND Needs Development 50 - 69%	Student cannot demonstrate indicator.

Teachers are to use observations (“kid watching”), anecdotal records and child portfolio entries to support scoring

KINDERGARTEN CURRICULUM CLUSTER MAP SY 2018-2019

Cluster	Standard
The First Five (5 days)	
Quarter 1 Unit 1: (Suggested Days: 24)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.MD.B: (Supporting) Classify objects and count the number of objects in each category.	K.MD.B.3
K.G.A: (Additional) Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.)	K.G.A.1
	K.G.A.2
	K.G.A.3
Quarter 1 Unit 2: (Suggested Days: 20)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.MD.B: (Supporting) Classify objects and count the number of objects in each category.	K.MD.B.3
K.G.A: (Additional) Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.)	K.G.A.1
	K.G.A.2
	K.G.A.3
Quarter 2 Unit 3: (Suggested Days: 25)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.1
	K.OA.A.2
	K.OA.A.5
K.MD.A: (Additional) Describe and compare measurable attributes.	K.MD.A.1
	K.MD.A.2

K.G.A: (Additional) Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.)	K.G.A.1
	K.G.A.2
	K.G.A.3
Quarter 2 Unit 4: (Suggested Days: 22)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.1
	K.OA.A.2
	K.OA.A.5
K.MD.A: (Additional) Describe and compare measurable attributes.	K.MD.A.1
	K.MD.A.2
Quarter 3 Unit 5: (Suggested Days: 22)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.3
	K.OA.A.4
K.MD.B: (Supporting) Classify objects and count the number of objects in each category.	K.MD.B.3
K.G.B: (Additional) Analyze, compare, create, and compose shapes.	K.G.B.4
	K.G.B.5
	K.G.B.6
Quarter 3 Unit 6: (Suggested Days: 21)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.1
	K.OA.A.2
	K.OA.A.3
	K.OA.A.4
	K.OA.A.5
K.NBT.A: (Major) Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects.	K.NBT.1
K.G.B: (Additional) Analyze, compare, create, and compose shapes.	K.G.B.4
	K.G.B.5
	K.G.B.6
Quarter 4 Unit 7: (Suggested Days: 23)	

K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.1
	K.OA.A.2
	K.OA.A.3
	K.OA.A.4
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.5
K.NBT.A: (Major) Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects.	K.NBT.A.1
K.G.B: (Additional) Analyze, compare, create, and compose shapes.	K.G.B.4
	K.G.B.5
	K.G.B.6
Quarter 4 Unit 8: (Suggested Days: 25)	
K.CC.A: (Major) Know number names and the count sequence.	K.CC.A.1
	K.CC.A.2
	K.CC.A.3
K.CC.B: (Major) Count to tell the number of objects.	K.CC.B.4
	K.CC.B.5
K.CC.C: (Major) Compare numbers.	K.CC.C.6
	K.CC.C.7
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.1
	K.OA.A.2
	K.OA.A.3
	K.OA.A.4
K.OA.A: (Major) Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	K.OA.A.5
K.NBT.A: (Major) Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects.	K.NBT.A.1
K.MD.A: (Additional) Describe and compare measurable attributes.	K.MD.A.1
	K.MD.A.2
K.MD.B: (Supporting) Classify objects and count the number of objects in each category.	K.MD.B.3
K.G.A: (Additional) Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres.)	K.G.A.1
	K.G.A.2
	K.G.A.3
Key: Major Cluster Supporting Cluster Additional Cluster	

Fluency Expectations:

-Students fluently add and subtract within 5.