Swedesboro-Woolwich School District's Math Curriculum Guidance Document

GRADE Kindergarten– Unit 1: Position, Length, Height, and Sorting

Mission Statement
The primary goal of the Swedesboro-Woolwich School District is to prepare each student with the real life skills needed to compete in a highly competitive global economy. This will be achieved by providing a comprehensive curriculum, the integration of technology, and the professional services of a competent and dedicated faculty, administration, and support staff. Guiding this mission will be Federal mandates, including No Child Left Behind, the New Jersey Core Curriculum Content Standards, and local initiatives addressing the individual needs of our students as determined by the Board of Education. The diverse resources of the school district, which includes a caring PTO and active adult community, contribute to a quality school system. They serve an integral role in supporting positive learning experiences that motivate, challenge and inspire children to learn.

Unit/Module Overview

Ready Math Unit 1: Position, Length, Height, and Sorting

This unit introduces students to describing the positions of objects and comparing their relative lengths and heights. It also introduces them to sorting and counting objects.

The major themes of the unit are:

- You can use words to describe the position of an object.
- You can compare objects by telling which is longer (or taller) and which is shorter.
- You can sort objects by their attributes. You can also count how many of each object are in a group and sort the groups by count.

Unit Skills include:

- Describe the position of objects, using words such as above and below.
- Place objects in given positions.
- Describe and compare attributes of objects.

- Compare the lengths of two objects to tell which is longer or shorter.
- Compare the heights of two objects to tell which is taller or shorter.
- Sort objects into groups with common attributes.
- Describe rules used to sort objects into groups.
- Count sorted groups of objects and sort groups by count.
- Use math vocabulary to describe position, length, and height.

Standards Covered in Current Unit/Module
Related Standards and Learning Goals
K.G.A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres) 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*. K.M.A. Describe and compare measurable attributes 1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.DL.A. Classify objects and count the number of objects in each category 1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. K.CC.B. Count to tell the number of objects 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.

Unit/Module Weekly Learning Activities and Pacing Guide			
Topic & # Days	**NJ Standards**	**Critical Knowledge & Skills**	**Possible Resources & Activities**

5 Days		Objectives: ● Understand the rules and routines during math instruction Essential Questions: ● What do numbers tell me? Mathematical Practices Covered: ● none	Lesson: ● Ready Math - Lesson 0 Sessions for the first 5 days Materials: ● Teacher Toolbox ● iReady app ● iReady Classroom text ● Centers library ● Classroom library read aloud ● Hands on math manipulatives ● Student Workbooks Formative Assessments: ● My Learning Path weekly progress ● Diagnostic Growth assessments ● Teacher observation ● Class participation ● Guided practice ● Individual practice ● Group work ● Student workbook ● Comprehension checks ● Lesson quizzes
5 Days	K.G.A.1	Objectives: ● Describe the relative position of objects using terms such as above, below, in front of, behind and next to ● Use positional words to describe objects Essential Questions: ● What different types of shapes are in our world? ● What positions can shapes be positioned in? Mathematical Practices Covered: ● Make sense of problems and persevere in solving them ● Reason abstractly and quantitatively ● Construct viable arguments and critique the reasoning	Lesson: ● Ready Math - Lesson 1 Describe Position Materials: ● Teacher Toolbox ● iReady app ● iReady Classroom text ● Centers library ● Classroom library read aloud ● Hands on math manipulatives ● Student Workbooks Formative Assessments:

		of others ● Model with mathematics ● Use appropriate tools strategically ● Attend to precision ● Look for and make use of structure	● My Learning Path weekly progress ● Diagnostic Growth assessments ● Teacher observation ● Class participation ● Guided practice ● Individual practice ● Group work ● Student workbook ● Comprehension checks ● Lesson quizzes
5 Days	K.M.A.1	Objectives: ● Describe measurable attributes of objects ● Describe measurable attributes of objects, such as length ● Compare the lengths of two objects to tell which is longer or shorter ● Describe measurable attributes of objects, such as height ● Compare the lengths of two objects to tell which is taller or shorter Essential Questions: ● What does successive numbers when counting mean? ● How can we show how many objects we counted? ● How do I describe and compare objects by height? Length? Weight? Mathematical Practices Covered: ● 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	Lesson: ● Ready Math - Lesson 2 Describe and Compare Length and Height Materials: ● Teacher Toolbox ● iReady app ● iReady Classroom text ● Centers library ● Classroom library read aloud ● Hands on math manipulatives ● Student Workbooks Formative Assessments: ● My Learning Path weekly progress ● Diagnostic Growth assessments ● Teacher observation ● Class participation ● Guided practice ● Individual practice ● Group work ● Student workbook ● Comprehension checks ● Lesson quizzes
5 Days	K.DL.A.1	Objectives:	Lesson:

		• Classify objects into given categories • Count the number of objects in each category • Sort categories by count Essential Questions: • How do I know how many objects are in a group? • How do I determine how many objects are in a group? Mathematical Practices Covered: • 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	• Ready Math - Lesson 3 Sort and Count Objects Materials: • Teacher Toolbox • iReady app • iReady Classroom text • Centers library • Classroom library read aloud • Hands on math manipulatives • Student Workbooks Formative Assessments: • My Learning Path weekly progress • Diagnostic Growth assessments • Teacher observation • Class participation • Guided practice • Individual practice • Group work • Student workbook • Comprehension checks • Lesson quizzes
3 Days	K.CC.B.5 K.G.A.1 K.DL.A.1	Objectives: • Count objects and tell how many • Count to answer "how many?" objects up to 20 arranged in a line • Count to answer "how many?" objects up to 20 arranged in a rectangular array • Count to answer "how many?" objects up to 20 arranged in a circle • Count to answer "how many?" objects up to 10 arranged in a scattered configuration • Describe the relative position of objects using terms such as above, below, in front of, behind and next to • Use positional words to describe objects • Classify objects into given categories	Lesson: • Ready Math - Math in Action - Imagine a Rainforest Materials: • Teacher Toolbox • iReady app • iReady Classroom text • Centers library • Classroom library read aloud • Hands on math manipulatives • Student Workbooks Formative Assessments: • My Learning Path weekly progress

		• Count the number of objects in each category • Sort categories by count Essential Questions: • Why do we need to count by 100 by 1's? • Why do we need to count to 100 by 10's? Mathematical Practices Covered: • Make sense of problems and persevere in solving them • Reason abstractly and quantitatively	• Diagnostic Growth assessments • Teacher observation • Class participation • Guided practice • Individual practice • Group work • Student workbook • Comprehension checks • Lesson quizzes
1 Day		Objectives: • Demonstrate knowledge of Unit 1 standards and objectives. Essential Questions: • What do you know how to do well? • What math could you use in your everyday life? • What is a question you still have? Mathematical Practices Covered: • 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	Lesson: • Ready Math - Comprehension Check / Unit Assessments Materials: • Teacher Toolbox • iReady app • iReady Classroom text • Centers library • Classroom library read aloud • Hands on math manipulatives • Student Workbooks Formative Assessments: • Unit Assessment

Interdisciplinary Connections for Kindergarten Math	
Technology Integration	**21st Century Skills**

• Animal Circus (ipad app) - learning games • Create a classroom Math Word Wall • If appropriate, use an interactive anchor chart to introduce or extend a lesson • Prior to lesson, engage students by viewing a video on the topic of the lesson (YouTube, connected) • Small group games, activities, challenges using classroom iPads • www.IXL.com - counting, skip counting, shapes • www.abcya.com - counting, shapes, numerical order, number sense, math bingo • www.funbrain.com - number recognition to 10, counting • www.gonoodle.com - Counting to 100, Skip counting • www.mathplayground.com - counting, shapes • www.pbskids.org - Counting (Peg's Pizza Place, Rock Art, Martha Seeks), Shapes (Paint-a-long, Stack to the Sky) • www.starfall.com - shapes, calendar skills, math songs, counting to 5	• CRP.K-12 CRP 1 Act as a responsible and contributing citizen and employee • CRP.K-12 CRP 2 Apply appropriate academic and technical skills • CRP.K-12 CRP 6 Demonstrate creativity and innovation • CRP.K-12.CRP 8 Utilize critical thinking to make sense of problems and persevere in solving them • CRP.K-12.CRP11 Use technology to enhance productivity • CRP.K-12.CRP12 Work productively in teams while using cultural global competence • WRK.9.1.2.CAP.1 Make a list of different types of jobs and describe the skills associated with each job • CAEP.0.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success • TECH.9.4.2.CT.3 Use a variety of types of thinking to solve problems (e.g., inductive, deductive). • TECH.9.4.2.TL.3 Enter information into a spreadsheet and sort the information. • TECH.9.4.2.IML.1 Identify a simple search term to find the information in a search engine or digital resource • TECH.9.4.2.IML.2 Represent data in a visual format to tell a story about the data • TECH.9.4.2.IML.4 Compare and contrast the way the information is shared in a variety of contexts (e.g., social, academic, athletic).

Link to Additional Components including Cross Curricular Connections, Accommodations, Assessments, Etc

ELA Enduring Understanding Statements