Unit 3: Patterns, Relationships, and Classification

Content Area: **Math**
Course(s):
Time Period: **Full Year**
Length: **Febuary-March**
Status: **Published**

Unit Overview

Each unit is comprised of standards that are considered major content along with supporting content. This unit explores sorting, classifying, and ordering objects. Prekindergarten children should be able to make comparisons of objects (shorter, longer, etc.) and recognize that objects have measurable properties (how long? how heavy?). They also should be able to recognize simple patterns (ABAB and AABB) in the environment and create patterns through art, blocks, or other things in their environment. They should become more aware of patterns found in the environment, as well as, patterns in the arrangements of objects, shapes, and numbers. Prekindergarten children should be able to describe simple patterns, predict what comes next in the arrangement, and represent patterns through symbols and/or movement.

Enduring Understandings

• Students will participate in weighing activities with balance scales using a variety of materials (manipulatives, sand, water, etc.) describing which is heavier/lighter.

• Students will choose the container with the greatest capacity.

Essential Questions

• Which material is heavier?

• Which container holds more?

Learning Objectives

• Sort people/animal figures/blocks by size, color and/or shape or other recognizable feature

• Create simple patterns (ABAB, AABB) • Engage in outdoor running games towards targets (a tree or a building) that are varying distances away; compare which was a longer/shorter distance

• Count how many steps it takes to go across a room; engage in comparisons of “baby steps” and “giant steps”

Standards: Content

4.1.3	Know that written numbers are symbols for number quantities and, with support, begin to write numbers from 0 to 10.
4.3	Children begin to conceptualize measurable attributes of objects.
4.3.1	Sort, order, pattern, and classify objects by non-measurable (e.g., color, texture, type of material) and measurable attributes (e.g., length, capacity, height).
4.3.2	Begin to use appropriate vocabulary to demonstrate awareness of the measurable attributes of length, area, weight and capacity of everyday objects (e.g., long, short, tall, light, heavy, full).
4.3.3	Compare (e.g., which container holds more) and order (e.g., shortest to longest) up to 5 objects according to measurable attributes.

Standards: Interdisciplinary

8.1.1	Use the mouse to negotiate a simple menu on the screen (e.g., to print a picture).
8.1.2	Navigate the basic functions of a browser, including how to open or close windows and use the “back” key.
6.1.3	Express individuality and cultural diversity (e.g., through dramatic play).
5.2.1	Observe, manipulate, sort, and describe objects and materials (e.g., water, sand, clay, paint, glue, various types of blocks, collections of objects, simple household items that can be taken apart, or objects made of wood, metal, or cloth) in the classroom and outdoor environment based on size, shape, color, texture, and weight.
6.4.1	Learn about and respect other cultures within the classroom and community.
8.5.1	Use the Internet to explore and investigate questions with a teacher’s support.
1.4.2	Create two- and three-dimensional works of art while exploring color, line, shape, form, texture, and space.
1.4.5	Demonstrate planning, persistence, and problem-solving skills while working independently, or with others, during the creative process.
RF.PK.1.b	Recognize that spoken words can be written and read.
W.PK.7	With guidance and support, participate in shared research and shared writing projects.
W.PK.8	With guidance and support, recall information from experience or familiar topic to answer a question.
SL.PK.5	Use drawings or visual displays to add to descriptions to provide additional detail.
SL.PK.6	With guidance and support, speak audibly and express thoughts, feelings, and ideas.
L.PK.1.a	Print many alphabet letters.
L.PK.1.b	Use frequently occurring nouns and verbs.
L.PK.1.e	Use frequently occurring prepositions (e.g., to, from, in, out, on, off, for, by, with).
L.PK.1.f	Begin to speak in complete sentences.
L.PK.2.c	Attempt to write a letter or letters by using scribble-writing, letter-like forms, letter-strings, and invented spelling during writing activities throughout the day.

L.PK.5.a	Begin to sort familiar objects (e.g., sort a collection of plastic animals into groups: dogs, tigers, and bears).
L.PK.5.b	Begin to understand opposites of simple and familiar words.

Assessment Evidence

Formative	• Teacher observations • Questioning • Discussions • Visual Representations • Student Conferences • Portfolio Check • Debriefing • Grade book
Summative	• Sort people/animal figures/blocks by size, color and/or shape or other recognizable feature • Create simple patterns (ABAB, AABB) • Engage in outdoor running games towards targets (a tree or a building) that are varying distances away; compare which was a longer/shorter distance • Count how many steps it takes to go across a room; engage in comparisons of "baby steps" and "giant steps"
Alternative & Benchmark	
Assessment Evidence Resource	

Instructional Resources

Instructional Resource List

Curricular Mandates

Below are the curricular requirements as defined in NJ Administrative Code and Statute

	Amistad		Diversity, Equity, and Inclusion
	Holocaust		LGBT and Disabilities (Grades 6-12)
	Climate Change		Asian American & Pacific Islander

Social Emotional Learning (SEL) Competencies

NJ Social and Emotional Learning Competencies & Sub-Competencies

X	Self-Awareness	**X**	Relationship Skills
X	Responsible Decision-Making	**X**	Social Awareness
X	Self-Management		

21st Century Skills & Themes

	Global and Cultural Awareness		Technology Literacy		Planning and Budgeting
	Creativity and Innovation		Financial Institutions		Risk Management and Insurance
	Information and Media Literacy		Digital Citizenship		Economic and Government Influences
	Critical Thinking and Problem Solving		Credit Profile		Career Awareness and Planning
	Civic Financial Responsibility		Financial Psychology		