

# Charyl Stockwell Academy

## Kindergarten Benchmarks and Grade Level Content Expectations

Benchmarks are in normal font, GLCES are in italics.

### Mathematics Curriculum with Focal Points

#### Numbers and Operations: Representing, comparing, and ordering whole numbers and joining separating sets.

- Counting and numeration
  - Represent whole numbers using manipulatives
    - *Count whole numbers and recognize how many objects are in sets to 30*
    - *Use one-to-one correspondence to compare and order sets of objects to 30 using such phrases as “same number”, “more than”, or “less than”; use counting and matching*
    - *Compare and order numbers to 30 using phrases such as “more than” or “less than”*
  - Recognize and write numbers
    - *Read and write numerals to 30 and connect them to the quantities they represent*
  - Begin to develop an understanding of the base ten place value system
    - *Begin to understand the numbers 1 to 30 as having one, or two, or three groups of ten and some ones. Also count by tens with objects in ten-groups to 100*
  - Recognize different representations of the same number
  - Investigate ways numbers are used (e.g., counting, ordering, naming, locating, measuring)
  - Apply their understanding of whole numbers to model and solve simple practical problems
    - *Describe and make drawings to represent situations/stories involving putting together and taking apart for totals up to 10; use finger and object counting*
- Graphing
  - Use information to create a concrete or pictorial graph with teacher assistance
  - Count objects that will be represented in a graph
  - Identify which columns on the graph are more, the same, or less than the others
    - Present data using a variety of appropriate representations
- Numbers, operations, and basic facts
  - Use manipulatives to model addition or subtraction with numbers
    - *Compose and decompose numbers from 2 to 10, e.g.,  $5 = 4 + 1 = 2 + 3$ , with attention to the additive structure of numbers, e.g., 6 is 1 more than 5, 7 is one more than 6*

***Numbers and Operations Extensions:***

- Explore various types of numeric patterns (by 5 and 10)
  - *Count orally to 100 by ones. Begin to count to 30 by 5's, and 10's using grouped objects or 100's chart*
- Money
  - Distinguish between coins by their attributes
  - Develop strategies for estimating a number of pennies within a range and compare their estimates to actual amounts
- *Record mathematical thinking by writing simple addition and subtraction sentences, e.g.,  $7 + 2 = 9$ ,  $10 - 8 = 2$  with or without teacher assistance*

**Geometry: Describing shapes and space.**

- Recognize and describe geometric patterns
- Explore various types of geometric patterns
  - *Create, describe, and extend simple geometric patterns*
- Compare attributes of objects and sort them into groups
- Describe the attributes of familiar shapes
- Compare, sort, and classify shapes
  - *Identify, sort, and classify objects by attribute and identify objects that do not belong in a particular group*
- Identify shapes in two dimensions
- Build familiar shapes
- Describe objects by their ordinal position

***Geometry Extensions:***

- Represent and record patterns and relationships in a variety of ways including tables, charts, and pictures using teacher assistance
- Classify shapes on a graph with teacher assistance

**Measurement: Ordering objects by measurable attributes.**

- Measurement
  - Compare attributes of different objects
    - *Compare length and weight of objects by comparing to reference objects, and use terms such as shorter, longer, taller, lighter, and heavier*
    - *Compare two or more objects by length, weight, and capacity, e.g., which is shorter, longer, and taller*
  - Use nonstandard units to measure length

- Recognize that the number of units it takes to measure the length of an object is related to the size of the unit
- Identify the attribute to be measured and select the appropriate nonstandard unit of measurement

***Measurement Extensions:***

- Apply measurement strategies to solve problems.
- Time
  - Identify differences between daytime and nighttime
    - *Know and use the common words for the parts of the day (morning, afternoon, evening, night) and relative time (yesterday, today, tomorrow, last week, next year)*
  - Identify characteristics of the four seasons
  - Identify the days of the week
  - Identify the months of the year
    - *Identify tools that measure time (clocks measure hours and minutes; calendars measure days, weeks, and months)*

***Other Extensions:***

- Make a good estimate (within an appropriate range) for a number of objects