

# Pre-Kindergarten: Measurement & Data Collection and Analysis

## Stage 1 Desired Results

ESTABLISHED GOALS:

Competencies:

- *Students will demonstrate the ability to describe and compare objects in order to identify attributes.*
- *Students will demonstrate the ability to represent and interpret data in order to analyze and draw conclusions.*

Framework descriptors:

Measurement

- o Recognize that objects can be measured by height, length, weight, and volume (E.g. Palo makes a stack of unifix cubes next to his friend and says, "You're 40 cubes tall.")
- o Make comparison such as bigger or smaller between two groups of objects
- o Recognize that time is measured in units (E.g. John asks how many more minutes he can stay outside.)

Data Collection and Analysis

- o Sort objects and count and compare the groups formed (E.g. Carlo says, "There are 3 brown teddy bears and 4 black teddy bears.")
- o Organize and represent information visually, with adult support (E.g. The teacher helps the preschoolers create a picture graph showing the numbers of children who walked to school or rode in a car.)

*Transfer*

*Students will be able to independently use their learning to **measure and organize data in their daily lives.***

*Meaning*

ENDURING UNDERSTANDINGS

*Students will understand that...*

- measurement processes are used in everyday life to describe and quantify the world.
- data displays describe and represent data in alternate ways.

ESSENTIAL QUESTIONS

- How can you measure?
- What types of units can we use to measure?
- What is the best way to represent data?

*Acquisition*

*Students will know...*

- that objects have measurable attributes that can be recognized and described.
- that objects can be sorted into categories.
- that objects can have like measurable attributes.
- that time is measured in units.

vocabulary: more than, less than, measure, attribute, sort, group, compare, height, weight, length, width, larger, smaller, big, medium, small, heavy, light, ruler, inch, foot, yard stick, pan balance, scale, pounds, short, tall, empty, full, minutes, hours, days

*Students will be skilled at...*

- recognizing attributes between objects.
- describing a measurable attribute.
- sorting objects by a specific attribute.
- comparing size, length, weight, volume, and height of objects and groups of objects.
- interpreting data from a graph.
- organizing and representing data visually with support.

<b>Content Area Literacy Standards</b>	<b>21<sup>st</sup> Century Skills</b>
<i>not applicable</i>	<ul style="list-style-type: none"><li>• <i>be self-directed learners</i></li><li>• <i>reason effectively</i></li><li>• <i>solve problems</i></li><li>• <i>think creatively</i></li></ul>

## Stage 2 - Evidence

<i>Evaluative Criteria</i>	<i>Assessment Evidence</i>
	PERFORMANCE TASK(S):
	OTHER EVIDENCE:

## Stage 3 – Learning Plan

*Summary of Key Learning Events and Instruction*

<i>Language Arts Integration</i>	<i>Mathematics Integration</i>
<ul style="list-style-type: none"><li>• 1.OA.1 Use</li></ul>	<ul style="list-style-type: none"><li>• 1.OA.1 Use</li></ul>
<i>Technology Integration</i>	<i>District Materials</i>

- 1.OA.1 Use

