

Oakwood City School District Pre-Kindergarten Mathematics

Pre-Kindergarten Mathematics

Pre-Kindergarten Course Description

The standards are designed to promote the learning and development of the "whole child." The activities build language skills, increase thinking and problem-solving abilities, develop social skills, promote large and small muscle development, and increase general knowledge in ways that help children get ready for kindergarten.

Pre-Kindergarten Inquiry and Application Standards

The Project Approach and other interest-based inquiry strategies offer teachers specific ways for children to:

- Learn about interesting, worthwhile, and real-world things in appropriate ways
- Ask questions and investigate answers
- Address standard early learning content
- Work at their own pace and on their own level
- Collaborate with others to plan, solve problems, and think creatively

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Content Standards

I. Counting and Cardinality

A. Know number names and the count sequence.

1. Count to 10 by ones.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Identify and name numerals 1-9.

B. Count to tell the number of objects.

1. Subitize to determine how many: immediate recognition of small quantities up to 6.
2. Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a) When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - b) Understand that the last number name said tells the number of objects counted up to 10. The number of objects is the same regardless of their arrangement or the order in which they were counted.

C. Compare numbers

1. Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group up to 10.
2. Compare two numbers between 1 and 5 when presented as written numerals.

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II. Operations and Algebraic Thinking

A. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Construct sets up to 10 with more or fewer objects than a given set; join two sets of objects to make one large set.

III. Measurement and Data

A. Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Sort, order and classify by one attribute.
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

B. Classify objects and count the number of objects in each category

1. Sort and classify objects into given categories; count the number of objects in each category and sort compare the categories by count. Limit total number of objects to 10.

IV. Geometry

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.
2. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (solid).

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B. Analyze, compare, create and compose shapes.

1. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts and other attributes.
2. Model shapes in the world by building shapes from components and drawing shapes.
3. Compose simple shapes to form larger shapes.