

Course Name: Kindergarten Mathematics
Course Codes: E2002, E2007, E2009

Course Description:

The kindergarten mathematics program enables children to be actively involved in exploring mathematics through counting, measuring, observing, data handling, sorting, and graphing. These experiences are related to learning experiences that involve many aspects of the Kindergarten curriculum. There is a strong emphasis on verbal interaction and manipulative activities to lay the groundwork for conceptual understanding. Students are guided in identifying and using non-computational applications of numbers.

Learning takes place with the use of a wide variety of materials including: rulers, tape measures, geometry templates, money, and calculators. When appropriate, children also use pattern blocks, weighing scales, and number blocks. Their “Fact Power” is developed in association with real life uses of numbers.

Course Proficiencies: The following is a list of the proficiencies that describe what students are expected to know and be able to do as a result of successfully completing this course. The proficiencies are the basis of the assessment of student achievement. The learner will demonstrate the ability to:

1. Sort and classify objects using attributes such as shape, color, and size. *K.MD.1, K.MD.2*
2. Recognize and identify patterns.
3. Explore the recognition of money and the relative value of penny, nickel, dime, quarter, and dollar. *2.MD.8*
4. Explore the use of bar charts and tallies to record and organize information. *1.MD.4*
5. Explore place value using tens and ones. *K.NBT.1*
6. Explore joining sets and removing sets using objects and numbers up to 10. *K.OA.2, K.OA.4*
7. Explore addition (+), subtraction (-), and equality (=) using number stories. *K.OA.1, K.OA.2*
8. Form equivalent sets. *K.MD.3*
9. Explore the use of the calculator for counting and computing.
10. Explore reading and writing numbers to 100. *K.CC.1, K.CC.2, K.CC.3*
11. Use one-to-one correspondence with objects. *K.CC.4, K.CC.5*
12. Use ordinal numbers through 10. *K.CC.3*
13. Estimate amounts of objects to 100. *K.CC.1*
14. Use skip counting by 2’s, 5’s, and 10’s. *K.CC.1*
15. Explore comparative measuring using a variety of tools. *K.CC.6, K.CC.7, K.MD.2*
16. Estimate measures of time, weight, and distance. *K.MD.1*
17. Use relative positions. *K.G.1*
18. Compare time intervals (clock time, seasons, calendar measures). *1.MD.3*
19. Tell time to the hour. *1.MD.3*

Kindergarten Proficiencies – *cont'd.*

20. Recognize common two-dimensional shapes. ***K.G.2, K.G.3***
21. Begin to identify symmetry in objects and pictures. ***K.G.4***
22. Use listening and thinking skills to make simple comparisons of numbers, objects, and sets.
K.CC.6, K.CC.7
23. Use patterns and attributes to solve problems. ***K.G.5, K.G.6***
24. Apply mathematics in practical situations and in other disciplines.
25. Use critical thinking skills to make sense of problems, solve them, and communicate processes. ***CRP 2, 4 & 8.***
26. Use technology to gather, analyze, and communicate mathematical information. ***8.1.2.A.4, 8.1.2.F.1***

Assessment: In kindergarten, student progress in mathematics is measured through teacher observation of students as they answer questions, work with other students, and work independently. At scheduled times in the year, teachers use performance assessment activities to gather information on how students have progressed relative to specific skills and knowledge. Results of student assessments are shared through written progress reports, parent conferences, and occasional informal communication.

Board Adopted Materials:

Teaching Resources and Related Student Materials:

Title: Everyday Mathematics
Author: University of Chicago School Mathematics Project
Publisher: McGraw-Hill Companies, Inc.
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