

Kindergarten Mathematics Units of Study

Dear Kindergarten Families;

Welcome to the Ann Arbor Public Schools Family Pages. We hope the information you find here assists you in supporting your child while s/he is learning important skills and concepts throughout the kindergarten year.

Everyday Mathematics provides the core learning resource for Mathematics in the Ann Arbor Public Schools elementary grades. **Everyday Mathematics** (EDM) supports teachers in providing students with the mathematical instruction and experiences they need to ensure that their learning focuses on the major work of each grade. Units of study are based on grade level goals for mathematical content and mathematical practice supported by aligned instruction and assessment. Information below is from *Everyday Mathematics, Goals for Mathematical Practice*, McGraw Hill Education.

Counting and Cardinality

Know number names and the count sequence.	Count by ones. Count by tens.
	Count on from numbers other than 1.
	Read numbers. Write numbers. Represent quantities with numerals.
Count to tell the number of objects	Count objects with correct count sequence. Count objects with one-to-one correspondence.
	Understand the cardinal principle. Understand the conservation of number.
	Understand the successor function.
	Count groups of arranged objects. Count groups of scattered objects. Count out a given number of objects.
Compare Numbers	Compare groups by number of objects. Compare numbers as written numerals.

Operations and Algebraic Thinking

Understand addition as putting together and adding to and understand subtraction as taking apart and taking from.	Represent addition concretely or verbally. Represent addition with numerals and symbols. Represent subtraction concretely or verbally. Represent subtraction with numerals and symbols. Solve number stories and problems involving addition and subtraction. Decompose numbers in more than one way. Record decomposition of numbers. Find number pairs that add to 10. Record number pairs that add to 10. Develop strategies for addition and subtraction facts. Add within 5 fluently. Subtract within 5 fluently.
--	---

Number and Operations in Base Ten

Work with numbers 11-19 to gain foundations for place value.	Partition and represent numbers 11-19 as ten ones and some more ones. Understand numbers 11-19 as ten ones and some more ones.
---	---

Measurement and Data

Describe and compare measurable attributes	Describe measurable attributes of objects. Compare measurable attributes of objects directly.
Classify objects and count the number of objects in each category.	Classify, count and order categories by count.

Geometry

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	Identify 2-dimensional shapes in the environment. Identify 3-dimensional shapes in the environment. Describe the positions of objects in the environment. Name 2-dimensional shapes. Name 3-dimensional shapes. Identify shapes as 2-dimensional or 3-dimensional
Analyze, compare, create, and compose shapes	Analyze and describe 2-dimensional shapes. Compare 2-dimensional shapes. Analyze and describe 3-dimensional shapes. Compare 3-dimensional shapes. Model shapes in the world. Compose shapes from other shapes.

Mathematical Practice

Make sense of problems and persevere in solving them	Make sense of your problem. Reflect on your thinking as you solve your problem. Keep trying when your problem is hard. Check whether your answer makes sense. Solve problems in more than one way. Compare the strategies you and others use.
Reason abstractly and quantitatively	Create mathematical representations using numbers, words, pictures, symbols, gestures, tables, graphs, and concrete objects. Make sense of the representations you and others use. Make connections between representations.

The Council of Great City Schools provides information on such topics as: 1) the progression of student learning across grade levels; 2) suggestions for helping your child at home; 3) questions to ask your child's teacher for a better understanding of your child's growth; and 4) parents may find ways to enrich a child's work at home by understanding the learning that will happen in the following year.

[Great City Parent Roadmaps - Kindergarten](#)

[Great City Parent Roadmaps in Spanish - Kindergarten](#)

Suggestions from *Great City Schools Roadmaps*:

Partnering with Teachers

Don't be afraid to reach out to your child's teacher—you are an important part of your child's education. Ask to see a sample of your child's work or bring a sample with you. Ask the teacher questions like:

- Is my child at the level where he/she should be at this point of the school year?
- Where is my child excelling?
- What do you think is giving my child the most trouble?
- How can I help my child improve in this area?
- What can I do to help my child with upcoming work?

Helping Your Child Learn Outside of School

1. Use everyday objects to allow your child to count and group a collection of objects.
2. Encourage your child to construct numbers in multiple ways. For example, what are some ways that you can make 10? Answers might include $5+5$, $6+4$, $8+2$, etc. Have your child explain his or her thinking.
3. Have your child create story problems to represent addition and subtraction of small numbers. For example, "Ann had eight balloons. Then she gave three away, so she only had five left."