

Helping Your Child Learn
A guide for parents of children in grades K to 3, Volume 1:
Correlation to the National Council of Teachers of Mathematics’
Principles and Standards for School Mathematics
For Prekindergarten through Grade 2

The following data describe the pages of the guide *Helping Your Child Learn, Volume 1* that address the *Principles and Standards for School Mathematics* (National Council of Teachers of Mathematics) for students in prekindergarten through grade 2. Analysis data show the page numbers of the guide that correlate to each expectation.

Principles and Standards for School Mathematics (NCTM)

Number and Operations Standard	Analysis Data
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Instructional programs should enable all students to understand numbers, ways of representing numbers, relationships among numbers, and number systems. In prekindergarten through grade 2 all students should:	
Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections.	Pages 6, 7
Develop a sense of whole numbers and represent and use them in flexible ways, including relating, composing, and decomposing numbers.	Pages 6, 7
Instructional programs should enable all students to understand meanings of operations and how they relate to one another. In prekindergarten through grade 2 all students should:	
Understand the effects of adding and subtracting whole numbers.	Page 6
Instructional programs should enable all students to compute fluently and make reasonable estimates. In prekindergarten through grade 2 all students should:	
Develop and use strategies for whole-number computations, with a focus on addition and subtraction.	Page 6
Develop fluency with basic number combinations for addition and subtraction.	Page 6

Algebra Standard	Analysis Data
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Instructional programs should enable all students to understand patterns, relations, and functions. In prekindergarten through grade 2 all students should:	
Sort, classify, and order objects by size, number, and other properties.	Page 8
Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another.	Pages 5, 6, 8

Instructional programs should enable all students to use mathematical models to represent and understand quantitative relationships. In prekindergarten through grade 2 all students should:	
Model situations that involve the addition and subtraction of whole numbers, using objects, pictures, and symbols.	Page 6
Instructional programs should enable all students to analyze change in various contexts. In prekindergarten through grade 2 all students should:	
Describe qualitative change, such as a student's growing taller.	Page 6
Describe quantitative change, such as a student's growing two inches in one year.	Page 6

Geometry Standard	Analysis Data
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Instructional programs should enable all students to specify locations and describe spatial relationships using coordinate geometry and other representational systems. In prekindergarten through grade 2 all students should:	
Describe, name, and interpret relative positions in space and apply ideas about relative position.	Page 7
Describe, name, and interpret direction and distance in navigating space and apply ideas about direction and distance.	Page 7
Find and name locations with simple relationships such as "near to" and in coordinate systems such as maps.	Page 7

Measurement Standard	Analysis Data
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Instructional programs should enable all students to understand measurable attributes of objects and the units, systems, and processes of measurement. In prekindergarten through grade 2 all students should:	
Recognize the attributes of length, volume, weight, area, and time.	Pages 8, 11
Compare and order objects according to these attributes.	Page 8
Understand how to measure using nonstandard and standard units.	Page 6
Select an appropriate unit and tool for the attribute being measured.	Page 6
Instructional programs should enable all students to apply appropriate techniques, tools, and formulas to determine measurements. In prekindergarten through grade 2 all students should:	
Use tools to measure.	Page 6

Data Analysis and Probability Standard	Analysis Data
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Instructional programs should enable all students to formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them. In prekindergarten through grade 2 all students should:	
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Pose questions and gather data about themselves and their surroundings.	Page 6
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Represent data using concrete objects, pictures, and graphs.	Page 6
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Instructional programs should enable all students to select and use appropriate statistical methods to analyze data. In prekindergarten through grade 2 all students should:	
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Describe parts of the data and the set of data as a whole to determine what the data show.	Page 6
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Connections Standard	Analysis Data
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Recognize and apply mathematics in contexts outside of mathematics.	Pages 6, 8
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Representation Standard	Analysis Data
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Create and use representations to organize, record, and communicate mathematical ideas.	Page 6
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Use representations to model and interpret physical, social, and mathematical phenomena.	Pages 5, 6, 7
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