

KINDERGARTEN MATHEMATICS CHECKLISTS
Goals 6 - 10
Illinois Learning Standards A – D

NUMBERS

Benchmarks

_____ Use concepts that include number recognition, counting, sequence of numbers, one-to-one correspondence and ordinals.

_____ Count with understanding and recognize “how many” in sets of objects.

Descriptors

_____ Identify numerals out of sequence through 20.

_____ Count forward from 1-100

_____ Count forward from any number in the range of 1-20 (e.g., start at nine and count to fifteen).

_____ Match the correct numeral with sets up to ten.

PROBLEM SOLVING

Benchmarks

_____ Solve simple math problems mentally, or by using objects, drawing pictures, etc.

_____ Represent mathematical ideas with symbols, pictures, or objects.

_____ Talk about the thinking involved in solving mathematical problems.

Descriptors

_____ Construct number sentences to match word problems.

_____ Use objects, simple drawings or symbols to represent mathematical ideas, such as how many pieces each child can have for snack.

_____ Explain to others the solution of a math problem.

COMPUTING

Benchmarks

_____ Estimate number of objects in a set.

_____ Connect numbers to quantities they represent using physical models and representations.

Descriptors

_____ Make reasonable estimates of small quantities of objects.

_____ Match the correct numeral to the number of objects.

PROBLEM SOLVING

Benchmarks

_____ Make comparisons of quantities.

Descriptors

_____ Demonstrate an understanding of more, less and equal.

UNITS, INSTRUMENTS AND METHODS

Benchmarks

_____ Demonstrate a beginning understanding of measurements using non-standard units.

_____ Count with understanding and recognize “how many” in sets of objects.

_____ Construct a sense of time through participation in daily activities.

_____ Order, compare and describe objects by size, length, capacity and weight.

Descriptors

_____ Measure objects using non-standard units.

_____ Construct and follow a daily schedule.

_____ Determine the attributes of an object that are measurable (e.g., length and weight are measurable).

_____ Compare and order objects according to measurable attributes.

LEVELS OF ACCURACY

Benchmarks

_____ Use estimation skills in solving everyday measurement problems.

_____ Use common instruments for measuring during work or play.

Descriptors

_____ Make reasonable estimates of the amount a container will hold.

_____ Estimate length using non-standard units of measurement.

INSTRUMENTS AND FORMULAS

Benchmarks

_____ Show increasing skill in using available tools for exploring and extending mathematical competence.

Descriptors

_____ Select appropriate tools for measuring.

VARIABLES AND PATTERNS

Benchmarks

_____ Sort objects into groups and tell the rule or rationale for the groups.

_____ Recognize, describe, translate, duplicate, create and extend patterns in various formats.

Descriptors

_____ Describe common and uncommon attributes (all, some, none) in a set.

_____ Recognize, describe and extend patterns such as a sequences of sounds, motions, shapes or simple numeric patterns and translate from one representation to another (e.g., red-blue-red-blue- translates to snap-clap-snap-clap).

TABLES, GRAPHS AND SYMBOLS

Benchmarks

_____ Construct and explain a simple graph.

Descriptors

_____ Make a graph on growth of seeds planted before vacation that are now small plants.

NUMBER SYSTEMS AND PROPERTIES

Benchmarks

_____ Investigate addition and subtraction using concrete objects.

Descriptors

_____ Explore one-step addition and subtraction number sentences and word problems using objects such as pennies, counters, etc.

ALGEBRAIC CONCEPTS

Benchmarks

_____ Describe and compare qualitative change (e.g., student grows taller).

Descriptors

_____ Notice that he has grown because he can see over the counter at the store this year.

GEOMETRIC CONCEPTS

Benchmarks

_____ Recognize geometric shapes and structures in the environment.

_____ Identify and name basic shapes.

_____ Describe some attributes of two and three dimensional shapes.

Descriptor

_____ Create models of circles, squares, rectangles and triangles.

_____ Identify and name circle, square, triangle and rectangle.

_____ Describe characteristics of shapes (e.g., a triangle has three straight sides).

POINTS, LINES, PLANES AND SOLIDS**Benchmarks**

_____ Show understanding of and use direction, location and position words.

Descriptors

_____ Explain the position of an object in relation to another object (e.g., inside/outside, behind/in front of or under/above).

PREDICTIONS**Benchmarks**

_____ Represent data using concrete objects, pictures and graphs.

_____ Study, compare, interpret and analyze information presented in graph form.

_____ Make reasonable predictions based on information gathered in graph form.

Descriptors

_____ Organize, describe and label simple data displays such as pictographs, tallies, tables and bar graphs.

_____ Compare numerical information derived from tables and graphs.

_____ Compare information and make predictions from graphs made by the class.

DATA COLLECTION**Benchmarks**

_____ Gather and analyze data about themselves or their environment.

Descriptors

_____ Gather data to answer a simple question.