

3RD GRADE MATHEMATICS CHECKLIST

Goals 6 – 10

Illinois Learning Standards A-C

Assessment Frameworks

Calculators Not Allowed on ISAT

ISAT test questions are derived from this checklist. Use as a curriculum guide.

REPRESENTATIONS AND ORDERING

- _____ Read, write, recognize, and model equivalent representations of whole numbers and their place values up to 100,000.
- _____ Identify and write (in words and standard form) whole numbers up to 100,000.
- _____ Recognize a fraction represented with a pictorial model.
- _____ Represent multiplication as repeated addition.
- _____ Order and compare whole numbers up to 10,000 using symbols ($>$, $<$, or $=$) and words (e.g., greater (more) than, less than, equal to, between).
- _____ Order and compare decimals expressed using monetary units.
- _____ Identify and locate whole numbers and halves on a number line.
- _____ Solve problems involving descriptions of numbers, including characteristics and relationships (e.g., odd/even, factors/multiples, greater than, less than).

COMPUTATION, OPERATIONS, ESTIMATION, AND PROPERTIES

- _____ Solve problems and number sentences involving addition and subtraction with regrouping.
- _____ Solve problems involving the value of a collection of bills and coins whose total value is \$10.00 or less, and make change.
- _____ Model and apply basic multiplication facts (up to 10×10), and apply them to related multiples of 10 (e.g., $3 \times 4 = 12$, $30 \times 4 = 120$).
- _____ Use the inverse relationships between addition and subtraction to complete basic fact sentences and solve problems (e.g., $5 + 3 = 8$ and $8 - 3 = \underline{\quad}$).
- _____ Solve problems involving the multiplicative identity of one (e.g., $3 \times 1 = 3$) and the additive identity of zero (e.g., $3 + 0 = 3$).
- _____ Make estimates appropriate to a given situation with whole numbers.

UNITS, TOOLS, ESTIMATION, AND APPLICATIONS

- _____ Solve problems involving simple elapsed time in compound units (e.g., hours, minutes, days).
- _____ Select and use appropriate standard units and tools to measure length (to the nearest inch or cm), time (to the nearest minute), and temperature (to the nearest degree).
- _____ Solve problems involving the perimeter of a polygon with given side lengths or a given non-standard unit (e.g., paperclip).
- _____ Solve problems involving the area of a figure when whole and half square units are shown within the figure.
- _____ Compare and estimate length (including perimeter), area, and weight/mass using referents.
- _____ Determine the volume of a solid figure that shows cubic units.
- _____ Solve problems involving simple unit conversions within the same measurement system for time and length.

REPRESENTATIONS, PATTERNS, AND EXPRESSIONS

- _____ Determine a missing term in a pattern (sequence), describe a pattern (sequence), and extend a pattern (sequence) when given a description or pattern (sequence).
- _____ Write an expression to represent a given situation.
- _____ Show that multiplication is a form of repeated addition (e.g., $4 + 4 = 2 \times 4$).

WRITING, INTERPRETING, AND SOLVING EQUATIONS

- _____ Represent simple mathematical relationships with number sentences (equations and inequalities).
- _____ Solve one-step addition and subtraction equations that have a missing number or missing operation sign (e.g., $3 + \square = 5$, $6 \square 1 = 7$).
- _____ Solve word problems involving unknown quantities.

PROPERTIES OF SINGLE FIGURES AND COORDINATE GEOMETRY

- _____ Identify, describe, and sketch two-dimensional shapes (triangles, squares, rectangles, pentagons, hexagons, and octagons) according to the number of sides, length of sides, and number of vertices.
- _____ Compute elapsed time using a clock (e.g., hours and minutes since...) and a calendar (e.g., days since...).

- _____ Identify and describe three–dimensional shapes (cubes, spheres, cones, cylinders, prisms, and pyramids) according to their characteristics (faces, edges, vertices).
- _____ Locate and identify points using numbers and symbols on a grid, and describe how points relate to each other on a grid (e.g., ♥ is 2 units below ☼, point A is 3 units to the right of point B).
- _____ Identify whether or not a figure has a line of symmetry, and sketch or identify the line of symmetry.
- _____ Identify images resulting from flips (reflections), slides (translations), or turns (rotations).
- _____ Identify parallel lines.

RELATIONSHIPS BETWEEN AND AMONG MULTIPLE FIGURES

- _____ Identify the two–dimensional components of a three–dimensional object (e.g., a cube has square faces).
- _____ Identify a three–dimensional object from its net.
- _____ Predict the result of putting shapes together (composing) and taking them apart (decomposing).
- _____ Identify congruent and similar figures by visual inspection.
- _____ Determine the distance between two points on the number line in whole numbers.

DATA ANALYSIS AND STATISTICS

- _____ Read and interpret data represented in a pictograph, bar graph, Venn diagram (with two circles), tally chart, or table.
- _____ Complete missing parts of a pictograph, bar graph, tally chart, or table for a given set of data.
- _____ Determine the mode, given a set of data or a graph.

PROBABILITY

- _____ Classify events using words such as certain, most likely, equally likely, least likely, possible, and impossible.
- _____ Describe the chances associated with a context presented visually, including using the response format “3 out of 4.”