

Practices

MP5 Use appropriate tools strategically.

In first grade, students begin to consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be helpful. For instance, first graders decide it might be best to use colored chips to model an addition problem.

MP6 Attend to precision.

As young children begin to develop their mathematical communication skills, they try to use clear and precise language in their discussions with others and when they explain their own reasoning.

MP7 Look for and make use of structure.

First graders begin to discern a number pattern or structure. For instance, if students recognize $12 + 3 = 15$, then they also know $3 + 12 = 15$. (Commutative property of addition.) To add $4 + 6 + 4$, the first two numbers can be added to make a ten, so $4 + 6 + 4 = 10 + 4 = 14$.

MP8 Look for and express regularity in repeated reasoning.

In the early grades, students notice repetitive actions in counting and computation, etc. When children have multiple opportunities to add and subtract “ten” and multiples of “ten” they notice the pattern and gain a better understanding of place value. Students continually check their work by asking themselves, “Does this make sense?”

www.aMathsDictionaryforKids.com

An animated, interactive dictionary for students which explains over 600 common mathematical terms in simple language.



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Source Documents:

Based on Common Core State Standards for Mathematics, June 25, 2010

Adapted from North Dakota Content Standards: “I Can” Statements

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The cover features the text "Grade 1" in a large, blue, stylized font at the top. Below it, "CCSS Math Expectations Checklist" is written in a bold, blue, sans-serif font. At the bottom, there is a graphic of a wooden signpost with five directional signs: "Operation and Algebraic Thinking" (yellow), "Number and Operations in Base 10" (red), "Measurement and Data" (blue), "Geometry" (green), and "Mathematical Practices" (purple). A large blue number "1" is positioned to the right of the signpost. At the very bottom, there is a logo for the "COMMON CORE STATE STANDARDS INITIATIVE" with the tagline "PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER" and a cartoon crocodile character.

Mathematical

MP1 Make sense of problems and persevere in solving them.

In first grade, students realize that doing mathematics involves solving problems and discussing how they solved them. Students explain to themselves the meaning of a problem and look for ways to solve it. Younger students may use concrete objects or pictures to help them conceptualize and solve problems. They may check their thinking by asking themselves, “Does this make sense?” They are willing to try other approaches.

MP2 Reason abstractly and quantitatively.

Younger students recognize that a number represents a specific quantity. They connect the quantity to written symbols. Quantitative reasoning entails creating a representation of a problem while attending to the meanings of the quantities.

MP3 Construct viable arguments and critique the reasoning of others.

First graders construct arguments using concrete referents, such as objects, pictures, drawings, and actions. They also practice their mathematical communication skills as they participate in mathematical discussions involving questions like “How did you get that?” “Explain your thinking,” and “Why is that true?” They not only explain their own thinking, but listen to others’ explanations. They decide if the explanations make sense and ask questions.

MP4 Model with mathematics.

In early grades, students experiment with representing problem situations in multiple ways including numbers, words (mathematical language), drawing pictures, using objects, acting out, making a chart or list, creating equations, etc. Students need opportunities to connect the different representations and explain the connections. They should be able to use all of these representations as needed.



My checklist of what I can do in 1st grade math

I understand that it is important to apply the mathematical practices (identified on the inside cover) on a regular basis.

Operations & Algebraic Thinking

Represent and solve problems involving addition and subtraction: (1.OA.1, 1.OA.2)

- I can solve addition and subtraction word problems (within 20).
- I can add three numbers to solve word problems (within 20).

Understand and apply properties of operations and the relationship between addition and subtraction: (1.OA.3, 1.OA.4)

- I can add numbers in any order and get the same answer.
- I can group numbers together to find the answer.
- I can use addition to help me solve subtraction problems.

Add and subtract within 20: (1.OA.5, 1.OA.6)

- I can count to add and subtract.
- I can add and subtract numbers to 20.
- I can fluently add and subtract numbers to 10.

Work with addition and subtraction equations: (1.OA.7, 1.OA.8)

- I can decide if equations are true or false.
- I can solve equations with missing numbers.

Number & Operations in Base 10

Extend the counting sequence: (1.NBT.1)

- I can start at any number and count to 120.
- I can read and write numerals to 120.
- I can write the numeral for the number of objects I counted.

Understand place value: (1.NBT.2, 1.NBT.3)

- I can explain two digit numbers using tens and ones.
- I can bundle ones into groups of ten.
- I can explain how the numbers 11-19 are made of ten ones and more ones.
- I can represent the numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 as tens and ones. For example, 40 can be represented as 4 tens and 0 ones.
- I can compare two-digit numbers using symbols.

Use place value understanding and properties of operations to add and subtract: (1.NBT.4, 1.NBT.5, 1.NBT.6)

- I can show and explain how to add one-digit and two-digit numbers up to 100.
- I can find ten more or 10 less than a number in my head.
- I can explain how I found ten more or 10 less than a number.
- I can subtract multiples of 10 in the range of 10-90 from larger (or same) multiples of 10 in the range of 10-90.
- I can explain how I subtract multiples of 10 in the range of 10-90 from larger (or same) multiples of 10 in the range of 10-90.

Measurement and Data

Measure lengths indirectly and by iterating length units: (1.MD.1, 1.MD.2)

- I can put three objects in order by length.
- I can use an object to compare the length of two other objects.
- I can use an object to measure the length of another object.

Tell and write time: (1.MD.3)

- I can tell time to the nearest hour and half-hour.
- I can write time to the nearest hour and half-hour.

Represent and interpret data: (1.MD.4)

- I can create a graph or table.
- I can ask and answer questions about data.

Geometry

Reason with shapes and their attributes: (1.G.1, 1.G.2, 1.G.3)

- I can tell the difference between attributes that make a shape and those that do not.
- I can build and draw shapes.
- I can put shapes together to make other shapes.
- I can divide circles and rectangles into equal parts.
- I can describe equal parts as part of a whole.

How to use checklist:

- Show the date of when you were able to do the math expectation.
- Show an example of what you did in a journal.