Practices

MP5 Use appropriate tools strategically.

In second grade, students consider the available tools (including estimation) when solving a mathematical problem and decide when certain tools might be better suited. For instance, second graders may decide to solve a problem by drawing a picture rather than writing an equation.

MP6 Attend to precision.

As 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.

Second graders look for patterns. For instance, they adopt mental math strategies based on patterns (making ten, fact families, doubles).

MP8 Look for and express regularity in repeated reasoning.

Students notice repetitive actions in counting and computation, etc. When children have multiple opportunities to add and subtract, they look for shortcuts, such as rounding up and then adjusting the answer to compensate for the rounding. 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:

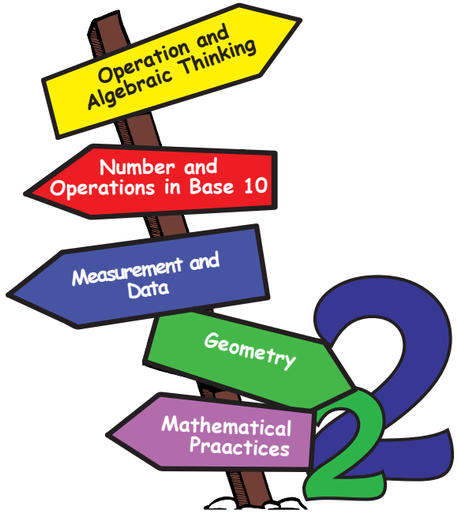
Based on Common Core State Standards for Mathematics, June 25, 2010

Adapted from North Dakota Content Standards: "I Can" Statements

Adapted from Arizona Department of Education Mathematics Standards, 2010

Grade 2

CCSS Math Expectations Checklist



COMMON CORE STATE STANDARDS INITIATIVE
PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

Mathematical

MP1 Make sense of problems and persevere in solving them.

In second 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. They 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 make conjectures about the solution and plan out a problem-solving approach.

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. Second graders begin to know and use different properties of operations and relate addition and subtraction to length.

MP3 Construct viable arguments and critique the reasoning of others.

Second graders may construct arguments using concrete referents, such as objects, pictures, drawings, and actions. They 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 appropriate 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 2nd 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: (2.OA.1)

- ☐ I can add and subtract to solve word problems (within 100).

Add and subtract within 20: (2.OA.2)

- ☐ I can fluently add and subtract within 20 in my head.
- ☐ I can recall basic math facts from memory.

Work with equal groups of objects to gain foundations for multiplication: (2.OA.3, 2.OA.4)

- ☐ I can tell whether a group of objects (up to 20) is odd or even.
- ☐ I can write an equation which shows adding the same two numbers will result in an even number.
- ☐ I can use addition to find the total of an array.
- ☐ I can write an equation that represents an array.

Number & Operations in Base 10 . . . . . .

Understand place value: (2.NBT.1, 2.NBT.2, 2.NBT.3, 2.NBT.4)

- ☐ I can explain three-digit numbers using hundreds, tens, and ones.
- ☐ I can explain 100 is a bundle of ten tens.
- ☐ I can explain how many hundreds are in multiples of 100.
- ☐ I can skip-count within 1,000:
  _____ by 5"s _____ by 10's _____ by 100's
- ☐ I can read numbers to 1000.
- ☐ I can write numbers to 1000 in different forms.
- ☐ I can compare three-digit numbers using symbols.

Use place value understanding and properties of operations to add and subtract: (2.NBT.5, 2.NBT.6, 2.NBT.7, 2.NBT.8, 2.NBT.9)

- ☐ I can fluently add/subtract within 100.
  _____ add _____ subtract
- ☐ I can add up to four two-digit numbers.
- ☐ I can add/subtract within 1000 using strategies I can explain. _____ add _____ subtract
- ☐ I can relate addition and subtraction strategies to written methods.
- ☐ I can add and subtract numbers 100-900 in my head.
  _____ add 10 _____ subtract 10
  _____ add 100 _____ subtract 100
- ☐ I can explain why addition/subtraction strategies work.
  _____ addition _____ subtraction

Measurement and Data . . . . . .

Measure and estimate lengths in standard units: (2.MD.1, 2.MD.2, 2.MD.3, 2.MD.4)

- ☐ I can select appropriate tools for measuring length.
- ☐ I can measure the length of an object.
- ☐ I can measure the length of objects using different length units.
- ☐ I can describe the relationship of different length units.
- ☐ I can estimate lengths.
- ☐ I can find the difference in length of two objects.

Relate addition and subtraction to length: (2.MD.5, 2.MD.6)

- ☐ I can add/subtract within 100 to solve word problems that involve length. _____ add _____ subtract
- ☐ I can add/subtract within 100 using a number line.
  _____ add _____ subtract

Work with time and money: (2.MD.7, 2.MD.8)

- ☐ I can tell/write time to the nearest five minutes.
  _____ tell time _____ write time
- ☐ I can solve word problems involving dollar bills, quarters, dimes, nickels, and pennies.
- ☐ I can use the $ and ¢ symbols.

Represent and interpret data: (2.MD.9. 2.MD.10)

- ☐ I can collect data by measuring lengths.
- ☐ I can make a line plot to show data.
- ☐ I can draw a picture/bar graph.
  _____ picture graph _____ bar graph
- ☐ I can solve problems using a bar graph.

Geometry . . . . . .

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

- ☐ I can recognize shapes by attributes.
- ☐ I can draw shapes with given attributes
- ☐ I can divide a rectangle into rows and columns of same-size squares and count the total number.
- ☐ I can divide circles and rectangles into equal parts.
- ☐ I can describe equal parts as part of a whole.
- ☐ I can recognize equal shares of identical shapes do not have to be the same shape.

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.