MA.2.NSO.1.4

Overarching Standard: MA.2.NSO.1 Understand the place value of three-digit numbers.

Benchmark of Focus:

MA.2.NSO.1.4 Round whole numbers from 0 to 100 to the nearest 10.

Example: The number 65 is rounded to 70 when rounded to the nearest 10.

Benchmark Clarifications

Clarification 1: Within the benchmark, the expectation is to understand that rounding is a process that produces a number with a similar value that is less precise but easier to use.

Related Benchmark/Horizontal Alignment

- MA.2.NSO.2.4
- MA.2.AR.1.1
- MA.2.M.1.1

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.1.NSO.1.4	MA.3.NSO.1.4

Terms from the K-12 Glossary

- Cardinality Principle
- Natural Number

Purpose and Instructional Strategies

The purpose of this benchmark is to introduce rounding as an estimation strategy, creating a number that is easier to compute mentally.

- Instruction includes the use of a number line to help students determine the nearest 10.
- Instruction includes the use of real-world context to help students make sense of how a rounded number may be less precise but easier to use.
- Instruction includes cases where students must provide numbers that would round to a given number.

Common Misconceptions or Errors

- Students may round down instead of up when there is a 5 in the ones place.
- Students may not be able to identify which two tens a number is between.
- For example, a student may not be able to determine that 72 is between 70 and 80.
- Students may look at the digit in the tens place to determine how to round, rather than the ones place.

Strategies to Support Tiered Instruction

- Instruction includes using a hundreds chart and showing the relationship of 10 and the next decade. Students will use the number line/number path to clarify where a number is rounded to. Images below show how to take a 120 chart into a number path/number line. A is the 120 chart, B is where you line the consecutive numbers up from one decade to the next and tape, C is where you cut the number path/number line, and D represents the number path/number line.
 - For example, after demonstrating how the hundreds chart is a stacked number line/number path, have students find the number 43 on the number line. Ask if it rounds to 40 or 50.



- Instruction includes using a number line and base ten blocks. Using the base ten blocks on the number line, students will represent a number and reference its location to 10.
 - For example, using a number line and base ten blocks teacher asks students to represent the number 27. Students will then need to determine if 27 is closer to 20 or 30.



Questions to ask students:

Round the numbers: 82, 97, 35, 3 to the nearest 10.

• Sample answer that indicates understanding: Answers 80, 100, 40, 0

Write 3 numbers that round to 60 when rounding to the nearest 10.

• Sample answer that indicates understanding: Answers any number from 55-64

Instructional Tasks

Instructional Task 1

Provide students with three sets of number cards with the digits 0-9.

Part A. Create various two-digit numbers from two of the sets of number cards provided.

Plot each of the numbers on a number line.

- Part B. Round each number created from Part A to the nearest 10. Explain why each number rounds to the identified ten.
- Part C. Create a two-digit numbers from one of the sets of number cards provided. Use the other sets to create the closest rounding to nearest 10. Explain why each number rounds to the identified ten.

Instructional Items

instructional Item 1

Use the number line below to plot 3 numbers that would round to 30 when rounded to the nearest 10.



Instructional Item 2

Jamie has a collection of 52 stickers. Rounded to the nearest 10, about how many stickers does Jamie have?

Additional Resources:

CPALMS Resources

Rounding Race

Resources/Tasks to Support Your Child at Home:

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<u>Khan Academy Rounding to nearest ten</u>
<u>Illustrative Mathematics: Rounding to the nearest ten</u>
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