

NWEA Assessment Item Illustrating 2.MD.A.4

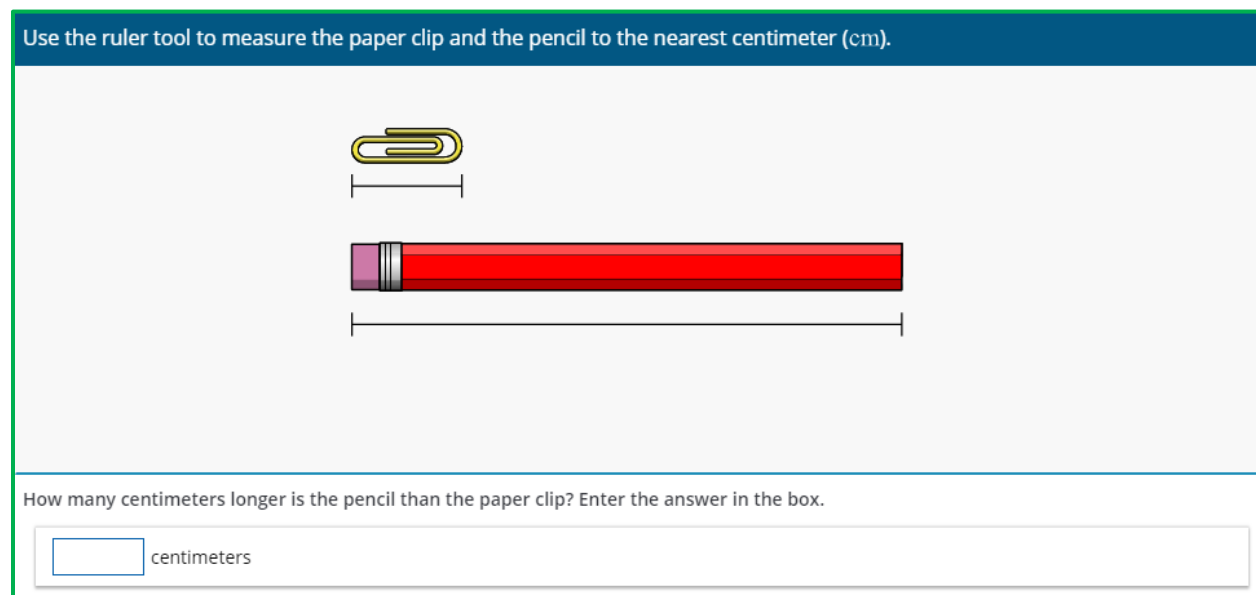
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Domain: Measurement and Data

2.MD.A: Measure and estimate lengths in standard units.

Calculator Availability: No

Use the ruler tool to measure the paper clip and the pencil to the nearest centimeter (cm).



How many centimeters longer is the pencil than the paper clip? Enter the answer in the box.

 centimeters

Alignment: 2.MD.A.4: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Within this cluster, students demonstrate that they understand how to line up the edge of an object with the zero on the ruler. Students then compare the lengths of the 2 objects to find the difference. They can do this either by measuring each object and subtracting, or by measuring the portion of the pencil that represents that difference.

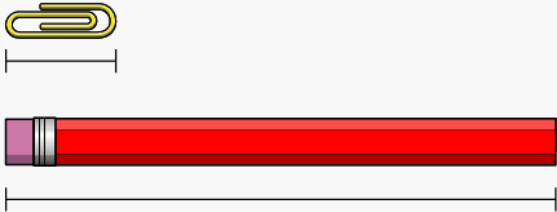
Coherence: The measurement progression started in kindergarten^{K.MD.A} as students explored which of an object's attributes can be measured and used direct comparison to determine which object had more/less of this attribute. In grade 1, students began exploring using an external unit to measure objects, first by comparing lengths via a reference object, and then by iterating nonstandard units.^{1.MD.A} This grade 2 standard builds upon the measurement skills learned in the earlier grades—and the skills learned in other grade 2 measurement standards—which required students to demonstrate their understanding of how to use a ruler to measure an object. This standard also connects measurement to addition and subtraction. In cluster 2.MD.B, students solve length problems and relate length to addition and subtraction on the number line. Developing and reinforcing the concept of a number line is a critical foundation to understanding the relationship between different types of numbers. In grade 3, students will develop fraction concepts using a number line. This will develop the understanding that fractions are numbers between whole numbers, not separate entities unconnected to whole numbers. In the upper grades, decimals, rational numbers, and irrational numbers will be explored in relation to the number line.

Rigor: This item attends to conceptual understanding, procedural skill, and application. Students demonstrate conceptual understanding of how to measure with a ruler. Students utilize below-grade

procedural skill when they subtract to find the difference in the lengths. It is appropriate that the procedure is below grade-level expectations, as this keeps the focus on the measurement component. The item also requires an application of mathematics in a real-world scenario because students are simulating measuring realistic objects.

Answer Key:

Use the ruler tool to measure the paper clip and the pencil to the nearest centimeter (cm).



How many centimeters longer is the pencil than the paper clip? Enter the answer in the box.

centimeters

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