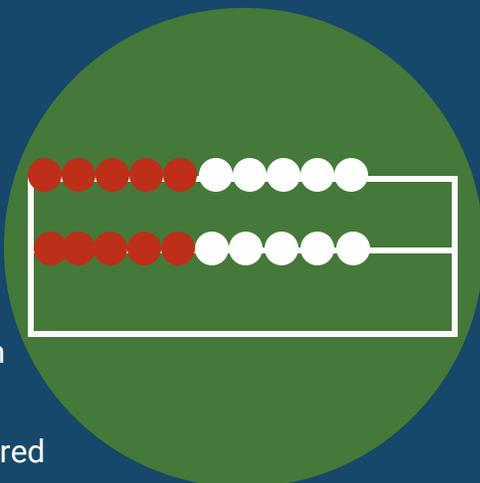


# Addition Fact Strategies: Rekenreks

This resource was created by Patricia Maxwell from Coventry Public Schools in Rhode Island to help with virtual mathematics instruction and intervention. The long-term goal is for students to fluently and automatically know addition facts. Manipulatives, including fingers, help students to be accurate, which is a precursor of fluency and automaticity. To meet this goal, students use manipulatives and learn strategies on how to put together numbers, which improves their "number sense." One of these strategies is Rekenreks.

## Purpose

Rekenreks are used to add and subtract with a visual manipulative. Rekenreks have a built-in structure, like ten frames, for children to count on from 5 rather than start counting at 1. 5 red and 5 white beads on the top make 10, with the same on the bottom. The beads give a visual picture (spatial relationship), benchmarks of 5 and 10, and a visual of a number being made up of two parts (part-part whole).



## Principles of Intervention Illustrated

- Provide concrete learning opportunities through the use of manipulatives.
- Provide explicit error correction, and have students repeat the correct process.
- Use precise, simple language to teach key concepts or procedures.
- Use explicit instruction and modeling with repetition to teach a concept or demonstrate steps in a process.
- Provide repeated opportunities to practice each step correctly.

## Modeling Addition Using a Rekenrek

1. If this is the first time children are using a Rekenrek, ask them what they notice. How many red and how many white beads are at the top? How many are there altogether?
2. 5 red and 5 white at the top:  $5 + 5 = 10$
3. Does the bottom look the same as the top?
4. Yes, so how many beads are there altogether on the top and bottom?
5. Yes, 10 is half of 20 and  $10 + 10 = 20$ .
6. Beads slide from right to left, and you should move them in groups. For example, if you were showing 3, you would move the 3 beads all at once, not one at a time. If you were showing 6, you would slide 5 beads and then 1 more.

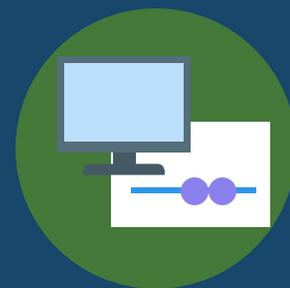
## Materials

For online use:

<https://apps.mathlearningcenter.org/number-rack/>

How to make a physical Rekenrek:

<https://www.mathcoachscorner.com/2013/06/diy-rekenreks-take-2/>



## Demonstration

This [video](#) demonstrates how to use a Rekenrek to teach addition and subtraction.



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This activity was developed by Patricia Maxwell, K-5 Math Interventionist at Coventry Public Schools, during the spring of 2020 as part of an NCII community of practice focused on virtual intervention delivery. Please note that NCII does not endorse specific intervention programs. As such, any programs noted in these documents are used for illustrative purposes only, or as potential resources for source materials (e.g., sample text, graphic organizers).

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