

REKENREK ADDING ON GAME

Volume 1

Developed with Kristin Ulrich
Grades K-2



Objectives

Students will be able to...

- Illustrate adding on using the Rekenrek model.
- Apply their adding on skills to a game.
- Create number sentences while practicing with the Rekenrek.

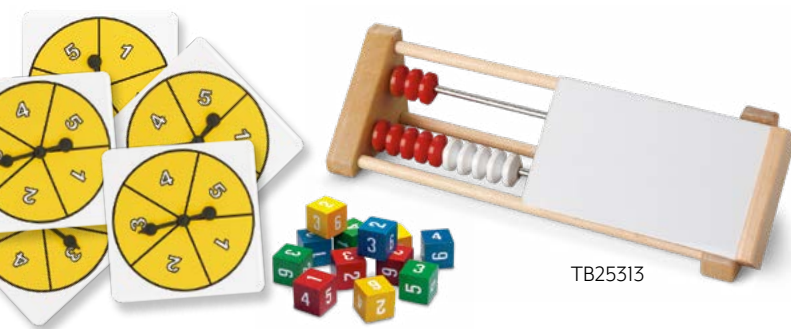
Materials

Individual Student Rekenrek Up to 20, 1 per student — TB26259, TB22807, or TB25313

Set of 12 Number Cubes, 1 number cube per student pair — TB20151 OR Set of 5 Number Spinners with numbers 1-5, 1 spinner per student pair — TB20149

Common Core State Standards

- CCSS.Math.Content.K.OA.A.2** — Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- CCSS.Math.Content.1.OA.C.6** — Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on.
- CCSS.Math.Content.2.OA.B.2** — Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two 1-digit numbers.



TB25313

INTRODUCTION

Students should be somewhat familiar with the use of the Rekenrek to complete this lesson.

Have students move 6 beads to the left on the top row of their Rekenrek. Students should be able to move the 5 red beads and 1 white bead without counting them. Ask students how many more beads they need to get to 10. They should answer 4 more.

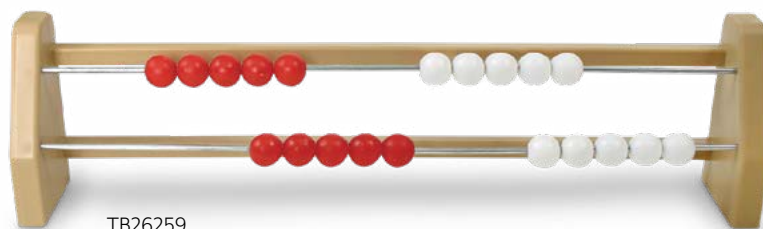
Repeat the same line of questioning with the numbers 3 and 8 that you did with 6 and 10 above. Look closely to determine that students are able to move the beads without counting each individual bead.

Now have students move all 10 beads on the top row over to the left. Explain that they are starting with 10 and counting on from that point.

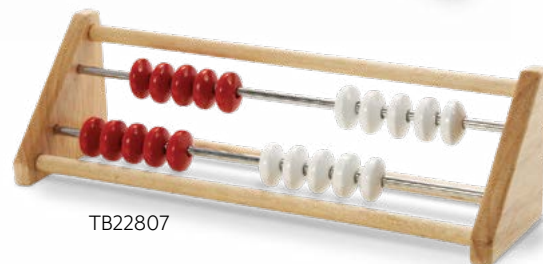
Next, have students move 2 red beads to the left on the bottom row of their Rekenrek. Ask students how many beads they have in all. Remind them that they have already moved 10 on the top row, so they should count on from 10. Students should come up with an answer of 12.

Have students move 4 more beads to the left and ask them how many beads they have moved in all. Remind them that they have already moved 12 beads, so they should count on from 12. They should come up with a total of 16 beads.

Ask students if they can add on 5 more beads. They should answer no. Ask them why not. They should answer that there are not enough beads. Then ask what the biggest number is that students can add on to 16 using their Rekenreks. They should answer 4. When asked what other numbers could still be added on, students should be able to answer 1, 2, or 3.



TB26259



TB22807

ACTIVITY

Students should be somewhat familiar with the use of the Rekenrek to complete this lesson.

Have students move 6 beads to the left on the top row of their Rekenrek. Students should be able to move the 5 red beads and 1 white bead without counting them. Ask students how many more beads they need to get to 10. They should answer 4 more.

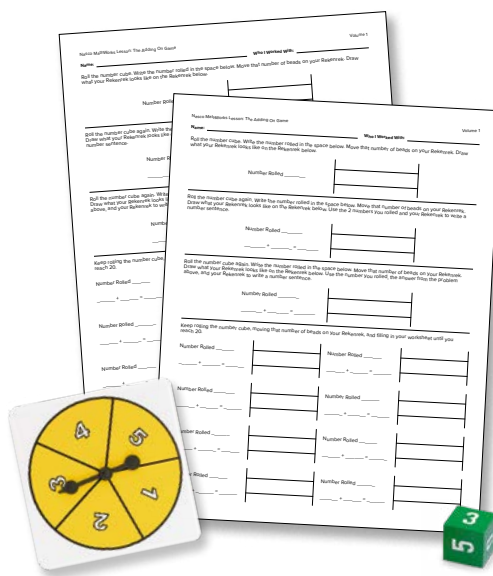
Repeat the same line of questioning with the numbers 3 and 8 that you did with 6 and 10 above. Look closely to determine that students are able to move the beads without counting each individual bead.

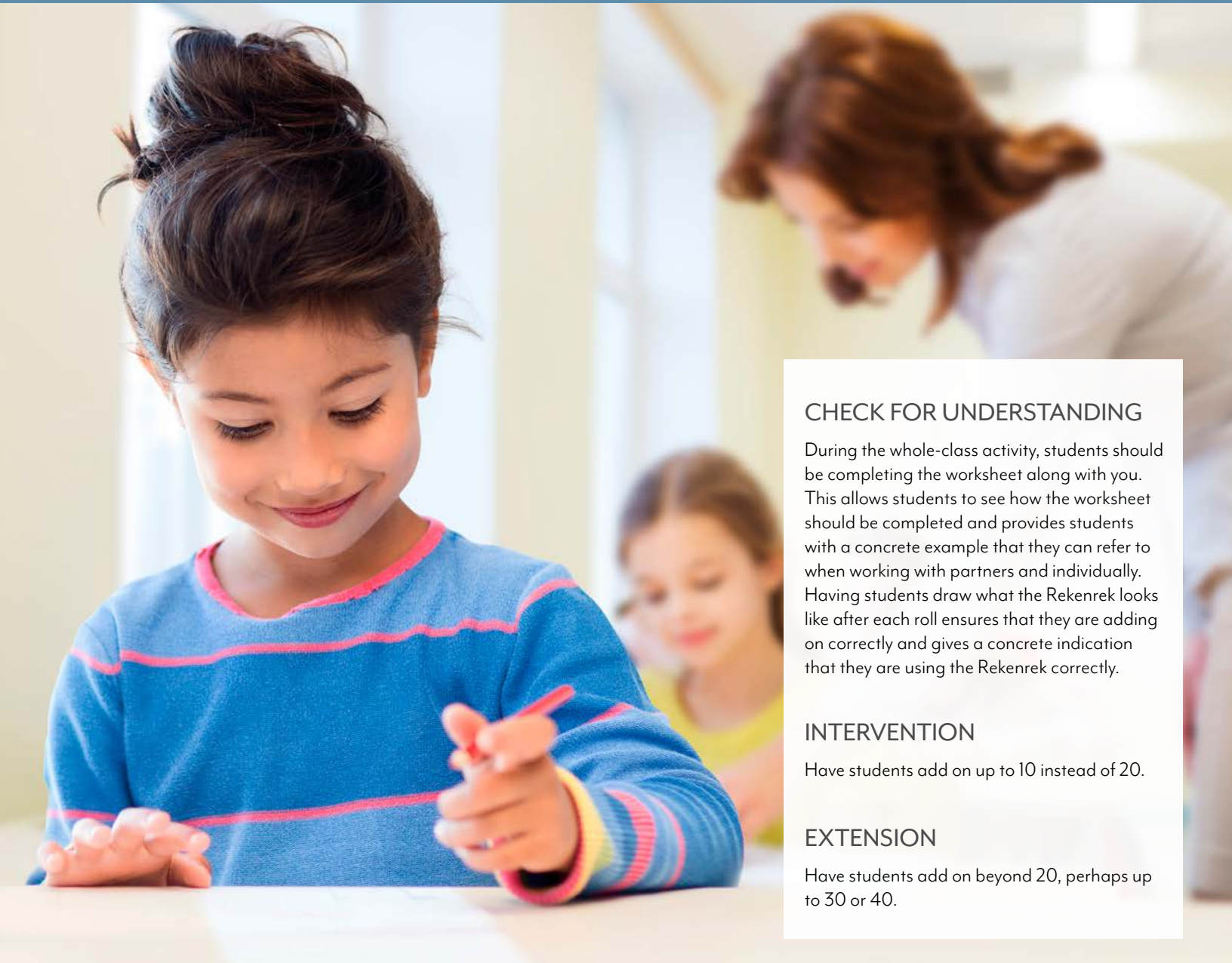
Now have students move all 10 beads on the top row over to the left. Explain that they are starting with 10 and counting on from that point.

Next, have students move 2 red beads to the left on the bottom row of their Rekenrek. Ask students how many beads they have in all. Remind them that they have already moved 10 on the top row, so they should count on from 10. Students should come up with an answer of 12.

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CHECK FOR UNDERSTANDING

During the whole-class activity, students should be completing the worksheet along with you. This allows students to see how the worksheet should be completed and provides students with a concrete example that they can refer to when working with partners and individually. Having students draw what the Rekenrek looks like after each roll ensures that they are adding on correctly and gives a concrete indication that they are using the Rekenrek correctly.

INTERVENTION

Have students add on up to 10 instead of 20.

EXTENSION

Have students add on beyond 20, perhaps up to 30 or 40.

PRACTICE

Students will repeat the whole-class activity with a partner. Each student should have another copy of the worksheet to record their results. Be sure they write their partner's name in the Who I Worked With blank.

Students should complete the activity at least once with a partner before they move on to completing it individually. Students may complete the activity again with another partner before moving on to individual practice if you wish. Students will need another copy of the worksheet each time they complete the activity.

After 1-2 times of completing the activity with a partner, students should complete the activity on their own. In the Who I Worked With blank, they can write No One.

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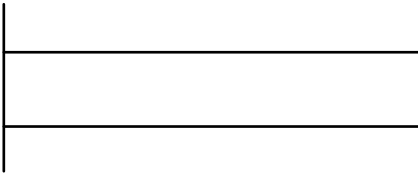
Lesson Plans are developed with teachers with no claim of original authorship.

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Name: _____ Who I Worked With: _____

Roll the number cube. Write the number rolled in the space below. Move that number of beads on your Rekenrek. Draw what your Rekenrek looks like on the Rekenrek below.

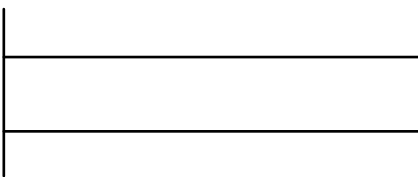
Number Rolled _____



Roll the number cube again. Write the number rolled in the space below. Move that number of beads on your Rekenrek. Draw what your Rekenrek looks like on the Rekenrek below. Use the 2 numbers you rolled and your Rekenrek to write a number sentence.

Number Rolled _____

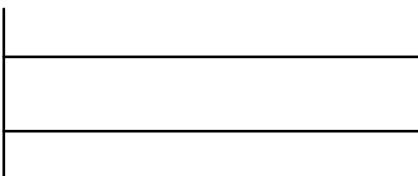
_____ + _____ = _____



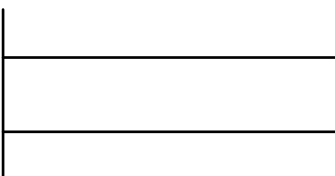
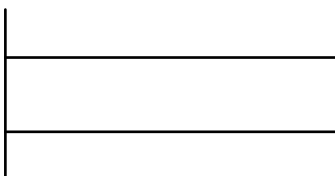
Roll the number cube again. Write the number rolled in the space below. Move that number of beads on your Rekenrek. Draw what your Rekenrek looks like on the Rekenrek below. Use the number you rolled, the answer from the problem above, and your Rekenrek to write a number sentence.

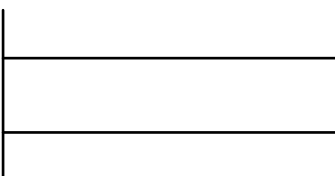
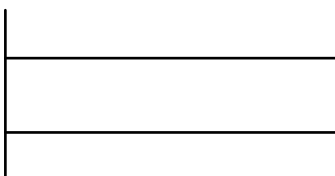
Number Rolled _____

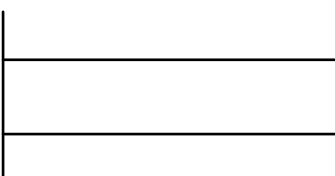
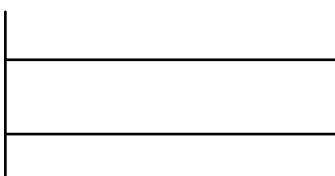
_____ + _____ = _____

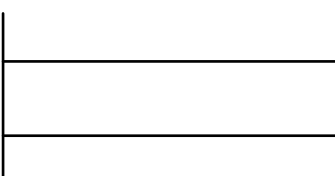
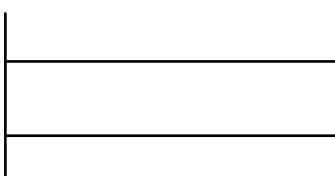


Keep rolling the number cube, moving that number of beads on your Rekenrek, and filling in your worksheet until you reach 20.

Number Rolled _____		Number Rolled _____	
_____ + _____ = _____		_____ + _____ = _____	

Number Rolled _____		Number Rolled _____	
_____ + _____ = _____		_____ + _____ = _____	

Number Rolled _____		Number Rolled _____	
_____ + _____ = _____		_____ + _____ = _____	

Number Rolled _____		Number Rolled _____	
_____ + _____ = _____		_____ + _____ = _____	