

## Decomposing Numbers into Parts



### Wikki Stix 10 Bead Bars

When decomposing numbers into the separate parts, there is a pattern that works for any number to find the separate parts of the whole. Making vertical number lines will help your children visualize the pattern (see photo above).

**Materials needed: 45 red pony beads, 45 white pony beads and 9 Wikki Stix.**

Invite the children to create by making a tray with the pony beads and Wikki Stix. Assist the younger children in creating the Wikki Stix bead bars for the abacus. If desired, print the photo above for the children to use as a visual. The numbers on the left side indicate how many RED beads should be placed on each Wikki Stix strand. The number on the right side indicates how many WHITE beads should be placed on each strand.

In the photo above, Wikki Stix “10 bead bars” are used to decompose the number 10 into parts (beginning with the number 1).

$$1 + 9 = 10$$

$$2 + 8 = 10$$

$$3 + 7 = 10$$

$$4 + 6 = 10$$

$$5 + 5 = 10$$

$$6 + 4 = 10$$

$$7 + 3 = 10$$

$$8 + 2 = 10$$

$$9 + 1 = 10$$

If desired, ZERO can also be included by making two Wikki Stix 10 bead bars: one bar with 10 RED beads and one bar with 10 white beads:

$$0 + 10 = 10 \text{ and } 10 + 0 = 10$$

The same pattern will work to find the parts of **any** number. Ask the children to find all the parts that make up the number 5 by creating Wikki Stix **5 bead** bars instead of 10 bead bars.

$$\underline{0 + 5 = 5}$$

$$1 + 4 = 5$$

$$2 + 3 = 5$$

$$3 + 2 = 5$$

$$\underline{4 + 1 = 5}$$

$$5 + 0 = 5$$

Invite your children/students to try the same pattern with any number between 1 and 10 on their own Wikki Stix Abacus!

**For ways to use the Wikki Stix “10 bar” REKENREKS in Early Math, please see the ADDITIONAL RESOURCES in the *separate download* for the entire early math lessons from Wikki Stix.**