

Place Value

EQUIVALENCY PUZZLES

Designed to meet these objectives:

Math

- Students will understand place values.
- Students will identify numbers in expanded notation and word form.
- Students will use pictorial representations of numbers.

Strengthen students' math skills with these fun, skill-building equivalency puzzles! As students complete the puzzles, they get valuable practice working with place value. Great for use in a math center, these big, chunky puzzles make it easy to learn place values...hands-on!

What's Included

- 12 four-piece puzzles (48 total puzzle pieces)

Activities

Whole Class

Give each student a small puzzle piece. If possible, provide two pieces for each student. Then, either hold up one of the large pieces or display the piece using a digital visual presenter. Prompt students to tell you if they have an “equivalent” amount. There will be three correct answers. Have the students with the matching pieces add their pieces to complete the puzzle. Continue until all puzzles are completed.

Small Group

- Place the puzzles in a center for use during free time or center time. Provide scratch paper and place value blocks to help students solve the puzzles.
- Prompt students to work in pairs and use the puzzles to play a memory matching game. Each student will select six of the large pieces. Students will turn over the thirty-six small pieces and place

them in a six-by-six grid. One student will begin the game by turning over a piece and checking if it is equivalent to any of her large pieces. If it matches, she will place the piece with the correct large piece. If it doesn't match, she will turn the piece over and let the other student take a turn. Play will continue until one of the players completes all six of the place value equivalency puzzles.

Meeting Individual Needs

ELL

In a small group, review important vocabulary as well as place value for the ones place through the thousands place. Have students help make a chart that shows the same numbers in numeric form, word form, expanded notation, and with place value blocks. Complete a place value equivalency puzzle together with students. Have students make flash cards showing numbers in equivalent forms as a reference or for daily math instruction. Make sure students understand that there are multiple ways to represent the same number.

Reteach/Extra Support

Work with students in a small group. Review place values, focusing on the ones place through the hundreds place. Write a number, such as 154, on chart paper. Prompt students to think of equivalent ways to show the number using expanded notation, word form, and place value blocks. Write down students' responses, both correct and incorrect. Be sure to discuss with students why any incorrect answers are not equivalent.

Challenge

- Have students write down additional numbers that are not on the puzzles. Be sure students write the numbers using expanded notation, word form, and pictures of place value blocks. Provide students with blank puzzles copied from the existing set. Invite them to fill in the blank pieces with the number equivalencies. Have other students solve the new puzzles.
- Encourage students to place the puzzles in order from smallest to largest or largest to smallest.