

Lakeshore®

Fractions, Decimals, & Percents Circles

Meets the following Common Core State Standards:

Number & Operations – Fractions
4.NF.A.1 – 4.NF.A.2 • 4.NF.B.3a – 4.NF.B.3b • 4.NF.C.7

- Challenge students to convert $\frac{1}{3}$ into a decimal. Check the answer on the back of the $\frac{1}{3}$ piece (0. $\overline{33}$).
- Write addition and subtraction problems on the board. Have students solve the problems. Encourage them to use the fraction pieces to help them.
- Remind students to find an equivalent fraction for the answer if possible. Challenge students who finish early to convert their answers into decimals.
- Review students' work as a class.

Meeting Individual Needs

ELL

Review important math terms that students will use in the activities, such as "fraction," "decimal," "percent," "equivalent," and "compare." Have students make vocabulary flash cards to use as a reference.

Reteach/Extra Support

In a small group, use only the $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{6}$ pieces until students feel confident working with fractions. Then add one new fraction at a time. Together, make a chart that lists equivalencies as students learn them.

Challenge

Have students make additional fraction, decimal, and percent pieces from tagboard, such as sevenths and ninths. Incorporate the new pieces into the activities.

Suggested Activities

Comparing values

Practice comparing basic fractions. Hold up the $\frac{1}{2}$ and $\frac{1}{3}$ pieces, and ask students, "Is the $\frac{1}{3}$ piece less than, greater than, or equal to the $\frac{1}{2}$ piece?" Continue holding up different fraction pieces and asking students to compare the values.

- Give small groups of students a handful of fraction, decimal, and percent pieces. Have students arrange the pieces from least to greatest. Demonstrate that the smallest fractions have the largest denominators, and the percents and decimals with the largest numbers have the greatest value.

- Make a list of fractions, decimals, and percents on the board. Have groups of students write out the numbers from least to greatest. Allow them to use the activity pieces for reference.

- Make a list of basic fractions, improper fractions, and mixed numbers on the board. Ask students to write the fractions in order from least to greatest. Allow them to use the fraction pieces if they need help.

Converting Decimals and Percents

Play a game of "Around the World" to practice converting decimals and percents. Show the

percent/decimal side of a piece to two students, using a sticky note to cover up the decimal. The student who calls out the correct decimal wins and goes head to head with the next student.

Challenge students to convert decimals to percents by covering up the percent instead of the decimal.

Equivalent Fractions

Demonstrate that smaller fractions can be combined to make a value equal to a larger fraction. Hold up a $\frac{1}{2}$ fraction piece, and ask a volunteer to put two $\frac{1}{4}$ pieces on top of the $\frac{1}{2}$ piece. Write $\frac{2}{4} = \frac{1}{2}$ on the board.

Put students into small groups. Give each group several fraction pieces. Ask them to search through the fraction pieces to find those they can combine to create equivalent fractions. Have them list and draw the equivalents they discover.

Adding & Subtracting Fractions

Help students practice adding and subtracting fractions. Write a problem on the board, such as $\frac{1}{6} + \frac{1}{6}$. Then push two $\frac{1}{6}$ pieces together and write $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$. Have students read the number sentence aloud: "One sixth plus one sixth equals two sixths." Then ask students to name the equivalent fraction of $\frac{2}{6}$. Help them discover that the two $\frac{1}{6}$ pieces can be placed on top of one $\frac{1}{3}$ piece. Write $\frac{1}{6} + \frac{1}{6} = \frac{2}{6}$ or $\frac{1}{3}$.