

Make your own fraction circle manipulatives to use in these activities and games.

You will need:

10-12 different color magic markers

Scissors

12-24 8 ½ x 11 pieces of cardstock

laser printer

computer

Directions to Make and Prepare the Fraction Circles

1. Print copies of the worksheet on cardstock, enough so you have 12 copies of the circle divided in twelfths, ten copies of the circle divided in tenths, and so on.

If you are using the worksheet from Worksheetfun.com, that means you print 12 copies. If you are using worksheets from mathatube.com, you'll need 4 copies of page 1, 8 copies of page 2, and 12 copies of page 3.

Here are the links:

<http://www.worksheetfun.com/fraction/fractioncirclesworksheetfun2.pdf> or

<http://www.mathatube.com/fraction-circles.html>

2. Color: These worksheets have circles divided into halves, thirds, fourths, fifths, sixths, sevenths, eighths, ninths, tenths, elevenths, and twelfths.

You will be making a set of round cards showing all the fractions with these denominators. (I would skip 7ths and 11ths. They are less commonly used and will have no equivalent fractions in the set.)

You'll color 59 circles (or 77 if you decide to include sevenths and elevenths):

- one-half and two halves in the same color,
- one-third, two-thirds and three thirds in a different color
- one-fourth, two-fourths, three-fourths, and four fourths, in yet another color, and so on.

3. Cut out all the circles you have colored.

Using fraction circles**Naming fractions**

You can use these cards to first to let your child practice naming fractions. Use the circles that have only one section colored and practice until they can recognize one half, one third, one fourth, on sight. Then add the other half, third, and fourth circles ($2/3$, $2/4$, $3/4$, and $2/2$, $3/3$, and $4/4$).

Finding equivalent fractions

Then spread 6 or 8 cards out and let your child practice finding equivalent fractions. (Make sure the cards you use include at least three pairs of equivalent fractions.) Have the student write the equations to describe the pairs they make, like $1/3 = 2/6$.

Comparing fractions

Show your child two fraction circles and have them tell you which is greater and which is less. Have them write it done as an inequality, like this: $1/4 < 1/2$

Matching Games**Matching equivalent fractions**

Start simple. Pull out 4 or 5 pairs of equivalent fractions (like one-half and two fourths) to use for this game. Begin using only halves, fourths and eights, and thirds and sixths. Mix those circles up, then put them on the table face up like a matching game. Each player finds a pair when it is his or her turn.

When they are can recognize pairs, then play with the cards face down, and each play can turn up two cards when it is his or her turn. If they match, the play can keep the pair and get san extra turn.

You could also play with halves, fourths, eighths, and twelfths, or with thirds, sixths, ninths, and twelfths.

You could gradually increase the number of pairs, up to ten pairs.

Make One Whole Game

Using the same groups of cards, play another game, where the object is to find two cards that add up to one whole. Spread all the cards you are using on the table. E.g. $1/3 + 2/3 = 1$, or $3/4 + 2/8 = 4$. For this game,

begin with just halves, quarters, and eighths. Then use the multiples of 3 (thirds, sixths, and ninths). You can eventually use all the cards.

Make One Whole-Old Maid Game

But instead of finding a matching pair as in Old Maid, the goal is to find cards that equal one whole. Shuffle and deal seven cards to each player. Each player checks their hand and puts down any pairs that equal 1, like $\frac{1}{5}$ and $\frac{4}{5}$, or $\frac{1}{2}$ and $\frac{3}{6}$. Then each player draws a card from the hand of the player on their right, and tries to make another pair. All players can replenish their hand from the draw pile so that they have at least 5 cards in their hand at all times.

Bonus: When the children are comfortable with this game, you can add that each pair earns a point, but that anyone who puts down three cards that together add to a whole, they get 3 points for playing that triple.