

Penny Baggies

Explore decomposition, the act of breaking a whole number down into parts, with Penny Baggies.

Grade Level: Kindergarten

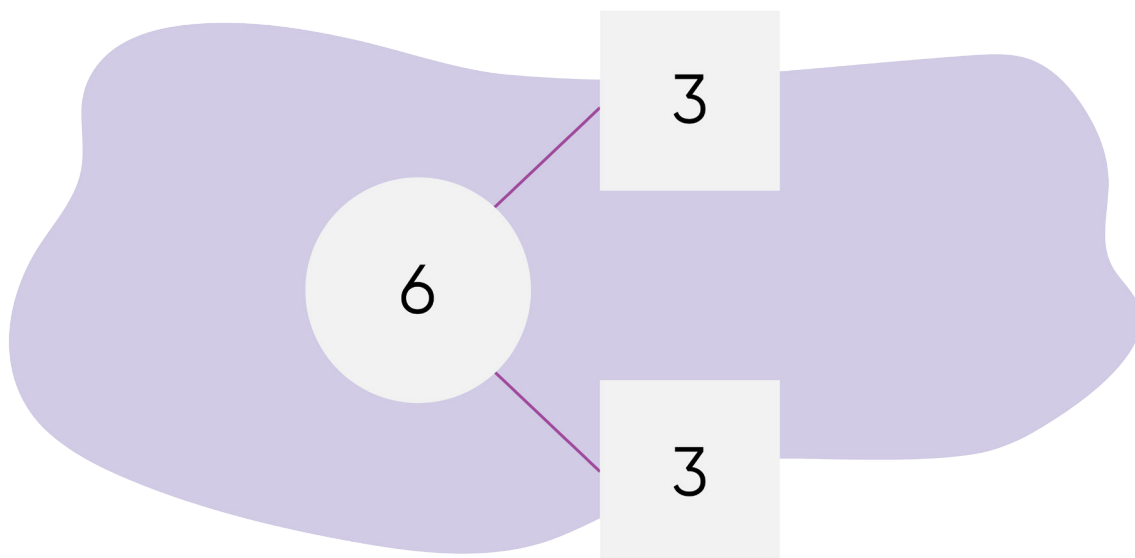
Materials needed: resealable baggie, marker, pennies

Prep:

1. Draw a thick line down the center of a resealable baggie.
2. Place five to ten pennies in the baggie.

Play:

1. Shake, then lay the baggie on a table, showing the addends (the numbers you add together to make a whole number). In this game the addends are the two groups of pennies divided by the line on the baggie. For example, if you have a total of six pennies in your baggie, after you've laid the bag on the table the addends might be 3 and 3.
2. Talk with children about how a whole number can be broken into two parts (decomposed). In this example, the whole number 6 is decomposed into two groups of 3.
3. Shake the baggie again and continue the process of identifying and discussing the addends.
4. If desired, make an organized list of the wholes and parts you discover. If you had six pennies total, with three on one side of the line and three on the other, your list might look like the image below:



4. After a few rounds, take a look at your list. Are there any combinations that are missing? Discuss what those may be.