

Activity: Exchanging coins

You will need:

Cards from *Items below £3 Master*, real or plastic coins

Before you start:

Cut out the following cards from the Master: Rubber, Sharpener

Instructions:

- Place a 2p coin in front of each child and ask what its value is. Take two 1p coins in your hand and ask to exchange this for someone's 2p coin. Ask 'Is this fair?' Count the two 1p coins to show that the exchange is fair because the total value in each case is 2p. Ask the others to exchange their 2p coin for the right number of 1p coins. Then ask them to exchange the two 1p coins for a single coin which will have the same value (2p).
- Make sure children understand that you can do the exchange either way round (one 2p coin for two 1p coins or vice versa) and that you will have the same total amount either way.
- Replace the coins and then repeat with 5p, 10p then 20p coins.
- Show the card with the rubber costing 19p. Ask each child to count the number of 1p coins they would need to pay for this.
- Now explain that they are going to exchange some of their pennies for coins of other values but that the exchange must be fair each time. Demonstrate by counting two of your pennies into your hand and saying that you want to exchange these for one 2p coin. Discuss why this is fair before doing the exchange. Reinforce that you still have 19p but using different coins.
- Ask each child to count some of their 1p coins into their hand to exchange for a single coin and to explain why the exchange is fair. Children should continue to exchange pennies.
- When you have finished, look at the different coins each child has and check that the value is still 19p in each case.
- Repeat for the sharpener which costs 25p.

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- What is the value of this coin? How do you know?
- How many 1p coins do you need to make 2p/5p/10p/20p/19p?
- Is it fair to exchange (swap) e.g. five 1p coins for one 5p coin? How do you know?
- How many 1p coins are you going to choose to exchange? What coin can you exchange these for? Is this fair? How do you know?
- What coins do you now have to pay for the item costing (19p)?
- Does this still total (19p)? How can you check?

The Mathematics

In this activity, children physically exchange a set of 1p coins for a coin of equal value e.g. five 1p coins for one 5p coin. In this way, they will start to understand equivalence in relation to money and to appreciate that the same total amount can be made using different sets of coins. The activity will also provide opportunity to practice recognising the value of different coins and finding the total value of a set of coins..

Simplifications:

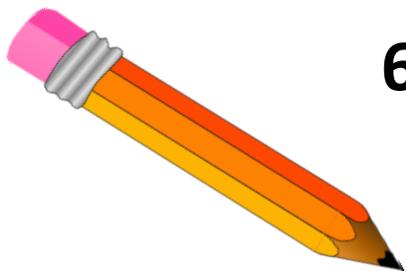


- Start by using 1p, 2p and 5p coins and change the price of the rubber to 9p.
- Act as 'exchanger' where children can only exchange coins with you if you agree the exchange is fair.
- Provide number lines for children to check the total value of their set of coins (e.g. a 2p coin should be represented by a jump of 2, labelled 2p).

Challenges:

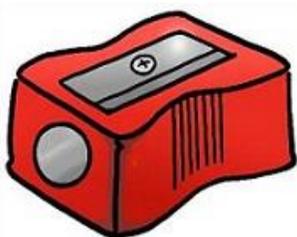
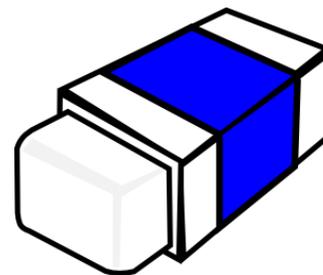


- Discuss exchanges that involve other coins e.g. exchanging two 5p coins for one 10p coin.
- Repeat the activity with coins of larger value. Discuss how many 10p coins need to be exchanged for 20p, 50p, £1 and £2. Use the notebook card (costing £1.25), starting with twelve 10p coins and five 1p coins before exchanging.



65p

19p



29p

37p



82p



99p



£2.99

£1.25

