

# Coin Equivalence

## **Target Strategies**

- Equivalence of coins
- Making money amounts
- Comparing same amounts in different coins

Activate the coin counter as the coins are entered onto the coin mat after the students have had time to process their own thinking.

## **Closed Questions**

Activate the coin counter as the coins are entered onto the coin mat after the students have had time to process their own thinking.

I have 2 coins which together make 20 cents, which coins do I have?

I have 2 coins which together make 10 cents, which coins do I have?

Which two coins together make 15 cents?

Which two coins together make 40 cents?

## **Open Questions**

I have 50 cents in my hand but I do not have a 50 cent coin. How can that be?

I have two coins in my hand that together are less than 50 cents. What might they be?

I have twenty cents in my hand. What coins might I have?

I have \$5 in gold coins. What coins might I have?

## **Flip Questions**

*Two Coins* is a game where you hide two coins in your hand and the students ask to find out what they are. Questions could include:

Do you have two dollars?

Feedback with the full answer the first few times the game is played, e.g.

No I do not have two \$1 coins?

This will help the students with the elimination process on the boards.

As the students become expert at this game suggest that they ask questions such as the following as this will eliminate more coins more quickly:

Do you have more than 50 cents?

# Coin Totals

## **Target strategies**

Extending ideas of equivalence

Sorting for counting

Counting patterns with coins

Activate the coin counter as the coins are entered onto the coin mat after the students have had time to process their own thinking.

## **Closed Questions**

I have 15 cents. Which three coins do I have?

I counted my 10 cent coins and found I had 40 cents. How many 10 cent coins did I have?

I have a dollar made from 50 cent coins. How many fifties do I have?

I have a dollar made from 10 cent coins. How many 10 cent coins do I have?

In the coin box there are three 20 cent coins, four 10 cent coins and two 5 cent coins, start with the 20s and count how much altogether?

I have 20 cents using the most coins possible. What coins do I have?

If I had a dollar made of all 10 cent coins how many coins would I have?

## **Open Questions**

I have fifty cents but no 50 cent coin. What coins might I have?

I have two ten cent coins, three five cent coins, and four 20 cent coins. What would be a good strategy for counting how much money I have altogether?

I have nine 5 cent coins. What different ways could I sort and count how much altogether?

I want to change a 50 cent coin for other coins of the same value. What coins might I change it for?

## **Flip Questions**

*Guess My Amount* is a game where the students can ask you questions to find out how much money you have hidden in your hand. All of the hidden coins are of the same denomination and the students are told what they are. If I had 5 cent coins hidden in my hand questions could include:

Do you have more than 50 cents worth of coins?

Do you have more than 4 coins?

Does your amount finish with a five?