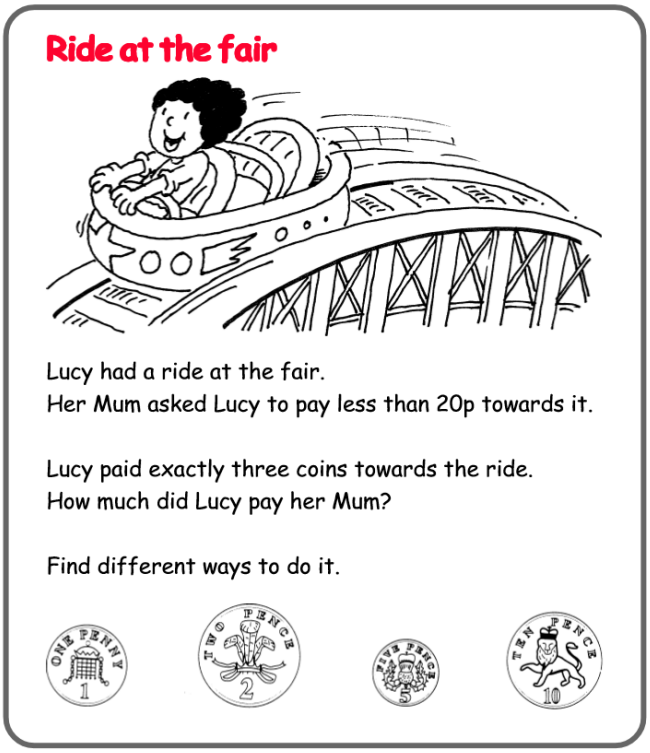
Objective: Counting in 1s,2s, 5s and 10s

Year 1 Task: At the Fair



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Mathematical challenges for pupils in key stages 1 and 2.

Worked example

Encourage children to work in a systematic organised way so they can check whether there are other ways to complete it. Substitute coins for another.

2p+2p+2p+2p+2p+2p+2p+2p+2p+2p=20p

5p + 5p + 5p + 5p = 20p

10p + 5p + 5p = 20p ✓ 3 coins

10p + 5p + 2p + 2p + 1p = 20p

10p + 5p + 2p + 1p + 1p = 20p

Are there other ways to do it?

Variation

Breaking the problem down

Can you make 20p using just 2p coins?

Can you make 20p using just 10p coins?

Can you make 20p using just 5p coins?

How many different ways can you make it?

Can you make 20p using just 3 coins? Which coins did you use?

Challenge

How many different ways can you make 50p with these coins?

What is the smallest number of coins/largest number of coins you could use?

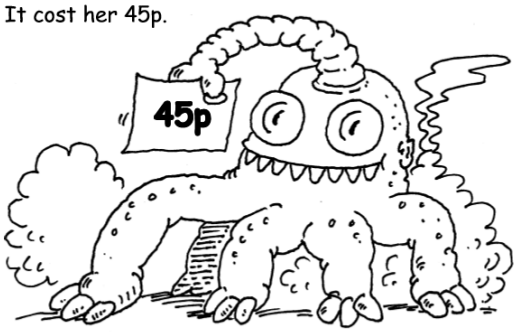
Year 1 Task: Monster money

Objective: Counting in 1s,2s, 5s and 10s

Children will also need to use their knowledge of counting in 10s to count in 20s.

Monster

Alesha bought a monster using only silver coins.
It cost her 45p.



There are nine different ways to pay 45p exactly using only silver coins.
Find as many as you can.

What if the monster cost 50p?
How many different ways are there to pay now?

Worked example

Use the worked example from Ride at the fair to help you. Be organised in the recording and ask: How do you know you have them all or have not repeated any?

20p + 20p + 5p
20p + 10p + 10p + 5p
20p + 10p + 5p + 5p + 5p
20p + 5p + 5p + 5p + 5p + 5p
10p + 10p + 10p + 10p + 5p
10p + 10p + 10p + 5p + 5p + 5p
10p + 10p + 5p + 5p + 5p + 5p + 5p
10p + 5p + 5p + 5p + 5p + 5p + 5p + 5p
5p + 5p + 5p + 5p + 5p + 5p + 5p + 5p + 5p

Variation

Breaking the problem down

Can you make the monster using 45p using just 10p coins? Why/why not?

What if you use just 5p coins? How many would you need?

Challenge

What if the monster cost 50p/60p? How could you make the amount then?

How many different ways can you find using coins?

What is the least/most amount of coins you could use?