

What if.....

.....you had 4 or 5 different coins?

.....each coin didn't have to be different?

.....you tried to make each amount between 8p and £3.50?

.....you only used 1p and 2p coins? What amounts could you make if there were 5 coins in the envelope?

.....you only used silver coins?

.....you used notes instead of coins?

.....you knew the total amount and found different ways to make that amount with 3, 4 or 5 coins?



Digit Dog Challenges © Lynwen Barnsley 2018



This FREE resource is available from: www.primarytreasurechest.com

Red Envelope Challenge

It is Chinese New Year and Digit Dog has given Calculating Cat a lucky red envelope. He has put 3 different coins in the envelope.

I wonder how much money there could be in the envelope.



Red envelopes, containing money, are given to children at Chinese New Year. Giving red envelopes sends good wishes and luck. Red is the colour of happiness and good luck.

Engage in the challenge - before tackling the challenge, let learners discuss what they think the challenge is about. Encourage learners to say what they see, notice and think.

What do you notice? What is Digit Dog doing? What do we know? What are we trying to find out? Explain in your own words. Talk to your partner about which coins could be in the envelope? Take suggestions of coins and totals.

Encourage learners to comment on each others' explanations: Do you agree with what your friend has just said?

What do you think the largest and smallest amounts could be? Which coins could we use?

Encourage learners to explain their answers. What other amounts could be in the envelope?

Tackle the challenge at different levels:

1. I can find an amount with 3 different coins.
2. I can find some different amounts with 3 different coins.
3. I know how many amounts you can make with 3 different coins.

Do the challenge

Ask learners to suggest ways of tackling the challenge and record their work.

Ask: How are you going to record your work?
Encourage different ways of recording e.g. with real coins, drawings of coins, written numerals and symbols.

Organise your work

Encourage learners to organise their work, to be systematic and to look for patterns as they search for different amounts.

How can we find different ways to make amounts?

How can we check each way is different?

Can you find a good way of checking?

How will you know if you have found all the different ways?



Explain your thinking

Be a pattern sniffer

Encourage learners to describe and explain what they are doing. Describe what you've done. How did you find the different amounts?

Explain what you did. Did you find all possible ways?

What amounts did you make? Did you spot any patterns?

Convince yourself. Convince your friend.