

What if.....

.....he had 3 hats and 3 scarves?

Can you see any patterns?

Can you use your method to work out how many days he could stay away now?



Digit Dog Challenges © Lynwen Barnsley 2017

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Holiday Challenge

When I went on holiday I wore a different set of hat and scarf each day. Here is one set.

I wonder if you can work out how many days I was on holiday.....



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 and unpick the challenge.

What do you notice? What has Digit Dog been doing? What did he wear each day? Which set is he wearing now? Tell me what Digit Dog wants you to find out. Can you act it out?

Use real hats and scarves, or picture cards, so that learners can act out and explain the problem. Encourage learners to comment on each others' explanations: Do you agree with what your friend has just said? You want learners to understand that there are different combinations of hats and scarves and that Digit Dog wore a different set each day.

What do you think the answer will be?

Encourage learners to make estimations and predictions.

Ask: How many sets do you think there can be?

Make suggestions: Will he be able to make 20 different sets?

More than 2 sets? How many more than 2?

Why do you say that? Explain your thinking.



He went on holiday for 5 days.

Calculating Cat said...

What do you think? Do you think she is right? Why/why not?

Do the challenge

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

Ask: How are you going to record the different sets? If he's wearing the red hat, what scarf could he wear? How many sets can he make with the red hat?

How many sets have you found? Have you found them all?

How do you know? How can you check if you have missed any?

Suggest: using real hats and scarves, or picture cards, or drawing pictures to prove you have found all the sets. Put each set on a separate piece of paper so that they can be sorted and compared.

Organise your work

Can learners set out their work systematically?



What do you notice? How many hats? How many scarves?

How many different sets altogether?

Setting out work systematically helps learners see 3 lots of 2.

Explain your thinking

Describe what you've done. How did you find all the sets?

How do you know how many days he was away?

Explain how you know that you've found all the sets.

Convince yourself. Convince your friend.