

What if.....

- .....you explored other numbers of counters?
- .....each row had 6 counters, or 7, or 8.....?
- .....you made up number stories to go with your number sentences?
- .....for an extra challenge, you thought about square numbers? Or triangular numbers?



Digit Dog Challenges © Lynwen Barnsley 2017

This FREE resource is available from: [www.primarytreasurechest.com](http://www.primarytreasurechest.com)



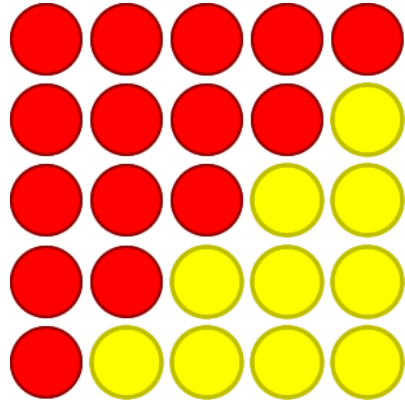
Two-Sided Counters Challenge

What do you notice?

I can see:  
 $3 + 2 = 5$



I wonder how many number sentences I can write .....



**Engage in the challenge-** discuss the question *What do you notice?* Accept all answers, do learners notice the pattern? Encourage learners to make the pattern themselves using two-sided counters and to say what they see.

**What do you notice? What has Digit Dog been doing? What patterns can you see?**

What does Digit Dog mean when he says I can see  $3 + 2 = 5$ ? Can you show me what he means? Where can he see this number sentence? Show me the 3. Show me the 2? What does the 5 mean? You want children to look at the arrangement of counters - the number of red, the number of yellow and to notice how each row changes. What is the same about the rows? What is different?

**What do you think the answer will be?**

How many more number sentences do you think he'll be able to write? Can you tell me another sentence? Will there 10 more sentences? More? Fewer? Why?

**Doing the challenge**

Ask learners to suggest ways that they can do the challenge and ways of recording their work. How many number sentences can you write? Explain with the counters.



**Be a pattern sniffer**

**Organise your work**

**Suggest:** write each number sentence on a post-it or separate piece of paper. These can be sorted to show patterns, encourage systematic working and spot any missing numbers. What patterns can you see in your number sentences? What is the same? What is different?

$$1 + 4 = 5$$

$$2 + 3 = 5$$

$$3 + 2 = 5$$

$$4 + 1 = 5$$

**Explain your thinking**

Have you found all the possible number sentences? How do you know? Explain how you did the challenge.

**Calculating Cat said...**



I looked at the counters and I saw  $9 + 1 = 10$

**Is this possible? What do you think? What do you think she means? Can you see the number sentences?**

Can children see that Calculating Cat is looking at the top 2 rows? Now what number sentences can you see? Encourage creativity – look at different numbers of rows. What about columns?