Red or blue

Children explore number patterns when counting on or back 2, 3 and 4. They use two colours to represent even/odd numbers.

Skills practised:

- Recognising numbers 1–20
- Counting on and back 2 or 3

Conjecture: There is a pattern in numbers which are 2 or 3 apart, then odd numbers and even numbers are in two different colours.

What to do:

Children work in pairs or individually.

Children will need 10 red cards/tiles numbered: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20 and ten blue cards/tiles numbered 1, 3, 5, 7, 9, 11, 13, 15, 17, 19 (see resources). They may also need a 1-20 bead string or a 1-20 track to help them count on and back.

1.   Children lay out the cards in front of them.

2.   They take a card.

3.   They then take the card which is two more than their card, and the card which is two less. They lay the three cards down in order. What do they notice about the pattern of colours?

4.   Repeat, starting with a different card.

5.   Again, they take the card two more and the card two less, and lay the three cards down in order. Ask them to look at the pattern of colours.

6.   Children keep doing this, trying different starting cards.

7.   What do they notice about the patterns?

Repeat this activity, but this time children take a card, the card which is 3 more and the card which is 3 less. What do they notice about the colour patterns this time?

CHALLENGE: Children try cards 4 more and 4 less. Can they predict the patterns?

Aim:
– To identify patterns and make predictions

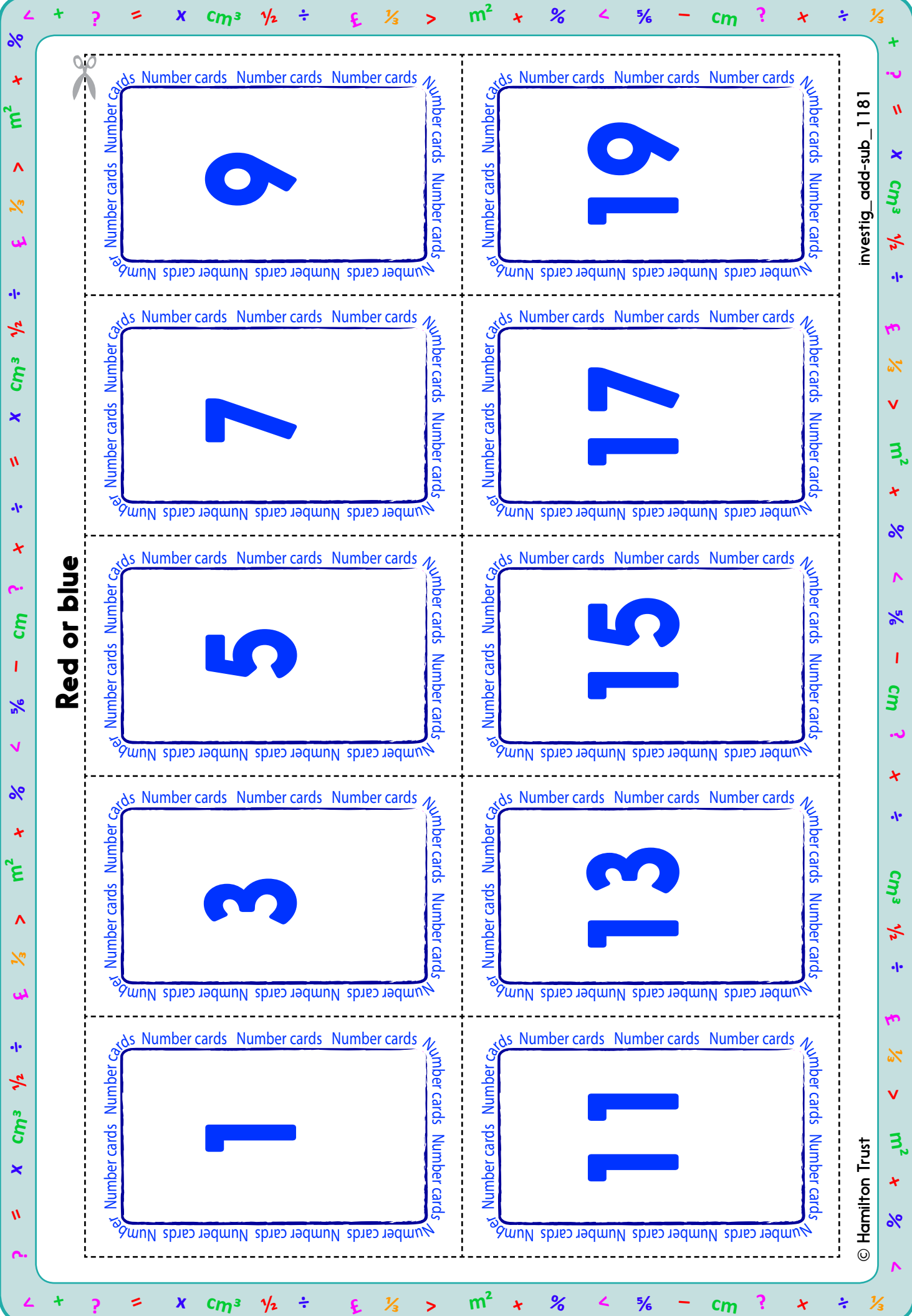## Minimum number of calculations expected
10-15

Red or blue

1.   Lay out the cards on the table in front of you.

2.   Take a card.

3.   Now take the card, which is 2 more than your first card, and the one which is 2 less.
      Lay the 3 cards in order.
      What do you notice about the pattern of colours?

4.   Put the cards back and start again picking a new card.

5.   Take another 2 cards, one which is 2 more and one which is 2 less.
      Lay the 3 cards in order.
      Look at the pattern of colours.

6.   Keep doing this, trying different starting cards.

7.   What do you notice about the patterns?

      Try again, but this time take cards which are 3 more and 3 less.
      What do you notice about the colour patterns this time?

Challenge

Try cards 4 more and 4 less. Can you predict the patterns?

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Red or blue

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Number cards	Number cards
10	**20**
8	**18**
6	**16**
4	**14**
2	**12**

Red or blue

Number cards

9

7

5

3

1

19

17

15

13

11