Spotlight 5: a learning check

Does not readily use number patterns to support calculating, for example: 46 − 5 = 41,

so 46 − 15 = 31,

46 − 25 = 21, etc.

Opportunity for: explaining and discussing

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Down the ladder   **Time** 5–15 minutes

Resources

- *Ladders* (Resource sheet 12)
- *Blank spinners* (Resource sheet 13)
- Number cards 0–9 (Resource sheet 1)
- Pencil and paper clip
- Two 100-squares (one numbered from 101–200)
- Bead string
- Pair of children cooperating

Check: does the child use key vocabulary?

number pattern	plus
number sequence	one more
what comes next?	ten more
predict	increased by
subtract	decreased by
add	

Teaching activity

'This game, **Down the ladder**, will help you with making patterns.'

Copy the round spinner onto card, cutting along the horizontal line and leaving plenty of card for the child to hold on to. Write + 1, + 1, + 10 and + 10 on the spinner (or to suit your children).

The spinner works by a child trapping a paper clip in the centre of the spinner with a pencil point, and with the other hand they flick the paper clip round.

Blank spinners   **Resource sheet 13**

+1   +10

+1   +10
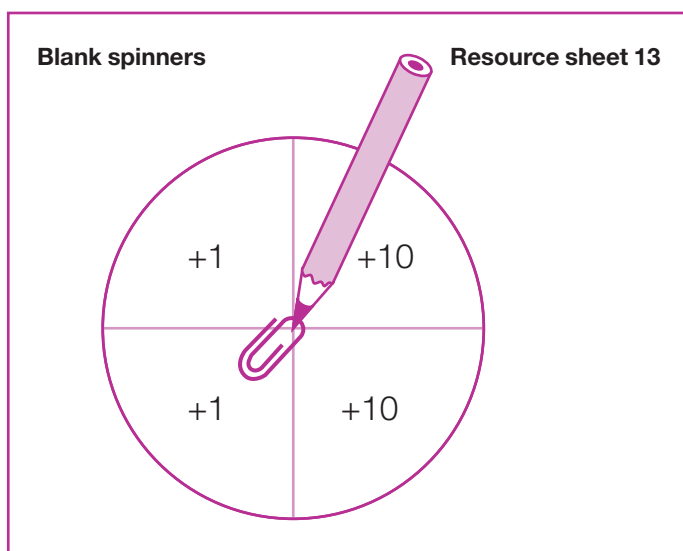
How to play

1. A pair of children make a two-digit number with the number cards, for example 13. They write that number in the first box at the top left hand of the ladder.

2. They spin the spinner to see what they must do with their number, for example + 10.

3. They add ten each time to the number going as far down the ladder as they can.

13	+	10	=	23
23	+	10	=	33
33	+	10	=	43
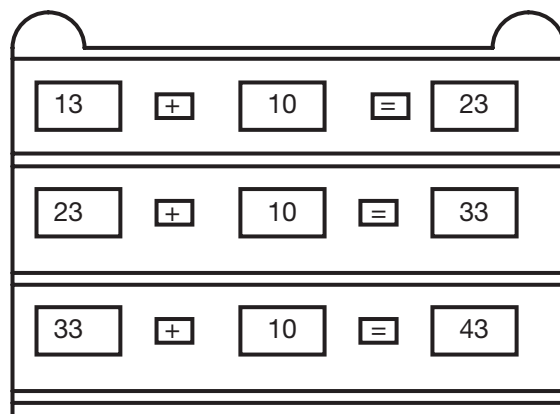
Variations

- You can make the game into a race by having two pairs of competing children. (Get the first line of each of their ladders completed before you start the race. This gives you time to support where this is needed.)

  The first pair to get to the end of the ladder, or a previously decided finishing point (such as first pair to get a number beyond a hundred), wins.

- Change the numbers on the spinner, or use the hexagonal spinner perhaps with + 5, + 15, + 25, + 35, + 45, + 55, or some numbers to subtract.

? **If we use numbers to subtract, what might we need to do for a starting number?** *(Make it reasonably large.)*

Learning outcomes

By the end of this set of activities children should be able to:

- tackle related learning tasks with increased motivation and confidence;
- use and understand connected mathematical vocabulary;
- predict a simple number pattern;
- make their own number pattern;
- understand that number patterns can help in calculating.