

ACTIVITY IA4.2: Ten-frame Flashes

Intended learning: To learn combinations and partitions of numbers in the range 1 to 10.

Instructional mode: Shorter, productive practice for individuals or groups.

⑧ **Materials:** Five-wise ten-frame cards 1–10.

Description: Briefly flash a standard five-wise pattern for seven. Ask *What did you see? How do you know?* If needed, prompt with *How many dots on the top row? How many on the bottom? How many dots altogether? How many more to fill the ten-frame?* Continue with other ten-frame patterns.

Responses, variations and extensions:

- The length of the flash should be such that students get a good look at the pattern but do not have enough time to count the dots by ones.
- Begin with the standard five-wise ten-frame patterns. As students develop facility with the five-plus facts, proceed to pair-wise ten-frames to work on doubles and near doubles to ten.
- Strategic use of colour may provide additional scaffolding. For example, if students have difficulty ‘seeing’ the empty spaces in the ten-frame, another colour of dot may be used to complete the ten rather than leaving empty spaces. Some students may need to begin with five-frames to combine and partition up to five.
- For students unable to visualize the pattern or who are not attending to the structure of the frame, an empty ten-frame and counters can be used to provide scaffolding toward visualizing the patterns. The students’ task is to use the blank frame and counters to recreate a flashed pattern. Students may need a second quick look at the pattern to check their arrangement of counters.
- Notating student thinking next to the ten-frame may facilitate student discussion of strategies (see Figure 4.4). This raises awareness that a number may be partitioned in multiple ways.
- The activity may be extended to structuring number to 20 through the flashing of double ten-frames. Begin with the ten-plus facts, that is use one full frame and a partial second frame.
- The flashing procedure may be done with other dot patterns such as domino patterns.

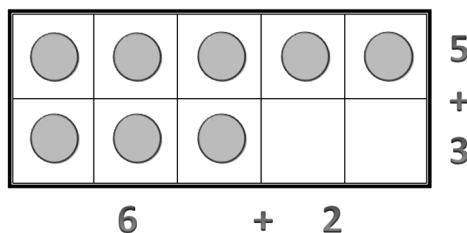


Figure 4.4 A ten-frame with students’ partitions notated