

## Spotlight 5: a learning check

Has difficulty with adding three numbers in a column, except by adding the first two and then the last one

### Opportunity for: explaining and discussing

#### Smallest possible

Time 10–20 minutes

##### Resources

- *Partitioning* (Resource sheet 23)
- Set of number cards 1–9 from Resource sheet 1 for each pair or player
- At least two children
- Stopwatch
- Place value (arrow) cards

##### Check: does the child use key vocabulary?

add	units	estimate
plus	how many altogether?	calculate
column	partition	check
tens	combine	
ones	most significant digit first	

##### Teaching activity

‘This game, **Smallest possible**, will help you with your adding in columns.’

Children could cooperate in pairs or race in pairs, or individual children could race each other.

##### How to play

1. Place the number cards face down in a pile.
2. The first player or pair must take two cards, look at them carefully and make the smallest two-digit number that they can. For example, if the cards are 3 and 7, they can make thirty-seven, which is smaller than seventy-three. This will be their first number.
3. Then the other pair takes two cards and make the smallest number that they can.
4. When each pair or player has made three two-digit numbers, the stopwatch should be started and each pair add up their numbers as fast as they can.
5. When they are sure their calculation is right, they should stop the stopwatch and write down their personal best time.
6. They then play again to try to beat their time.



Encourage the children to remember to estimate first and check at the end.

##### Variations



- You can add more support to the game by using tens and units place value cards face up, rather than number cards, and helping children to write in their numbers on *Partitioning* (Resource sheet 23).
- For a challenge, make the largest numbers possible.

##### 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;
- partition a two-digit number into tens and units to prepare for column addition;
- add three two-digit numbers by adding the tens column first and then the units and be able to recombine the number to make a total;
- check an answer to see if it is reasonable.