

## Number Bonds for 20 Activities

The aim of these activities is to:

- Encourage the pupil to develop a visual image of the number bonds for twenty. Pupils may initially need to count the base ten images, but should begin to recognise the amounts on sight.
- Apply knowledge of number bonds for 10 to the bonds for 20.
- Improve verbal recall of the number bonds for 20.
- Recognise that addition is commutative ( $12+8$  is the same as  $8+12$ ).

### Sorting activity 1

Spread out a set of addition cards face up. Put the base 10 cards in a pile and take the top one. Ask the pupil what numbers are represented by the yellow/blue squares and confirm that there are 20 squares altogether. Ask them to find a calculation which matches the base ten card. If they notice that two calculations can match (eg  $12+8$  could match 12 yellow/8 blue squares or 12 blue/8 yellow squares), they can choose either. Repeat for remaining cards. Do they recognise a whole ten without counting? Are they able to use their knowledge of place value to know that a yellow ten and three more yellow squares will be 13 or do they need to count?

### Sorting activity 2

Spread out the base 10 cards face up and put a set of addition cards in a pile. Ask the pupil to take a card from the pile, read the calculation aloud and find a matching base 10 card. Are they able to recognise the teen numbers represented by counting on from 10 or by using their knowledge of place value, or do they need to count every square? How quickly can they match the pairs?

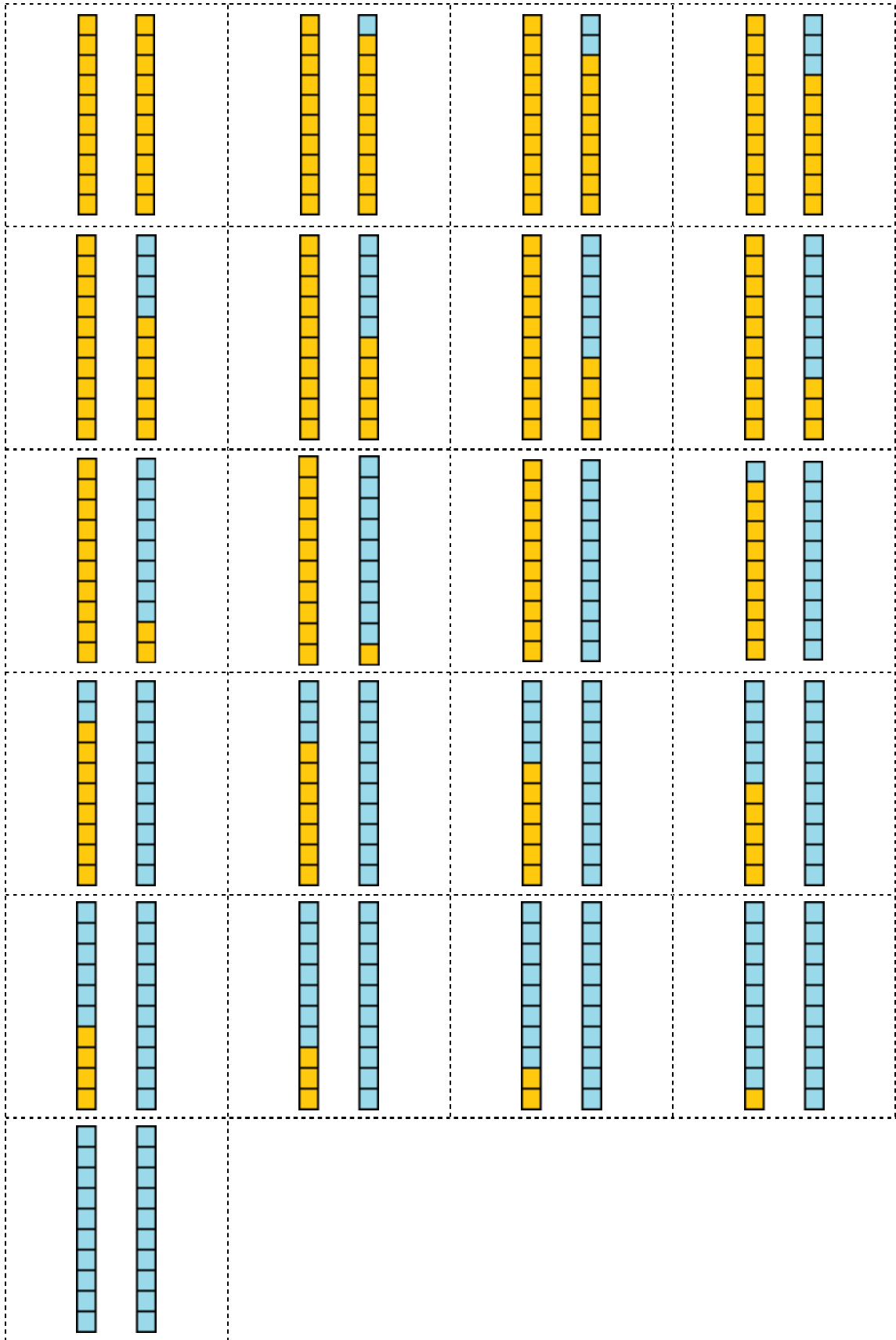
### Sorting activity 3

Spread out the base 10 cards and the addition cards face up. Ask the pupil to choose one of the base 10 cards. Can they find two addition cards that match it? Can they find another base 10 card which also matches? (eg 12 yellow/8 blue, 12 blue/8 yellow,  $12+8=20$  and  $8+12=20$ ). When the 10 yellow/10 blue card is chosen, ask why there is only one matching number card.

### Pairs

Spread out a set of number cards and base 10 cards face down. Take turns to turn over two cards. If the cards represent the same number bond, they may be kept. A pair may be two base 10 cards, two addition cards or one of each. The player with the most pairs at the end is the winner.

Base 10 cards



Addition cards

$20+0=20$

$19+1=20$

$18+2=20$

$17+3=20$

$16+4=20$

$15+5=20$

$14+6=20$

$13+7=20$

$12+8=20$

$11+9=20$

$10+10=20$

$9+11=20$

$8+12=20$

$7+13=20$

$6+14=20$

$5+15=20$

$4+16=20$

$3+17=20$

$2+18=20$

$1+19=20$

$0+20=20$