CAMBRIDGE

Cambridge University Press
978-1-107-62349-1 – Cambridge Primary Mathematics Stage 2
Cherri Moseley and Janet Rees
Excerpt
More information

100 square muddle

Maths focus: becoming familiar with the layout and patterns of numbers in a 100 square.

A game for two or three players

You will need:

- Game board (page 2).
- A different coloured counter (or alternative) for each player.
- A 1–6 dice (CD-ROM).

How to play

1. In order to help players work out where to move their counter to, it may be useful to explore which numbers have been swapped and how they link to each other before starting the game.
2. Players put their coloured counter on start (1) then take it in turns to roll the dice and move their counter along the 100 square by the number of spaces shown on the dice. Players need to take care to progress along the square, and at the end of each row, they must move their counter on to the beginning of the next row.
3. Some of the numbers have been swapped. If a player lands on a swapped number (for example 60 in the first row) they must move their counter to where the correct number is (in this case, 6). Sometimes this will take them closer to the Finish (100) and sometimes this will take them back towards the start. The winner is the first player to land on 100.

Challenge

For a more challenging game, give players a 100 square and a blank 100 square to enable them to make up their own 100 square muddle. They could play the game with a partner or challenge them to spot and colour the swaps.

© in this web service Cambridge University Press www.cambridge.org

1 Start	2	3	4	5	60	7	8	9	10
11	21	31	14	15	16	17	18	91	20
12	22	23	24	52	26	27	28	29	30
13	32	33	43	35	36	37	83	39	40
41	42	34	44	54	46	74	48	94	50
51	25	53	45	55	65	57	85	59	6
61	62	63	64	56	66	76	68	69	70
71	72	73	47	75	67	77	87	79	80
81	82	38	84	58	86	78	88	98	90
19	92	93	49	95	96	97	89	99	100 Finish

Original material © Cambridge University Press 2014

100 square games (1 and 2)

Maths focus: learning the number pattern produced when adding or subtracting 10 repeatedly.

A game for two or three players

You will need:
- Game board (page 4).
- A different coloured counter (or alternative) for each player.
- A 1–6 dice (CD-ROM).

Game 1: Adding 10

How to play

1. Players put their coloured counter on any single-digit number. Players then take it in turns to roll the dice. If the number rolled is odd (1, 3 or 5) the player's counter stays where it is. If the number rolled is even (2, 4 or 6) the player moves their counter one row down the 100 square, adding ten.
2. Players record their journey down the hundred square. For example if the player starts on 6:

   6+10 =16

   16+10 = 26

   26+10 = 36 and so on.
3. The winner is the first player to reach the bottom row of the 100 square.

Game 2: Taking away 10

How to play

1. As Game 1, but players start by putting their coloured counter on any number in the last row of the 100 square, 91 to 100. Players then take it in turns to roll the dice. If the number rolled is odd (1, 3 or 5) the player's counter stays where it is. If the number rolled is even (2, 4 or 6) the player moves their counter one row up the 100 square, taking away (subtracting) ten. For example if the player starts on 93:

   93−10 = 83

   83−10 = 73

   73−10 = 63 and so on.
2. The winner is the first player to reach the first row of the 100 square.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Original material © Cambridge University Press 2014

100 target (1 to 3)

Maths focus (1 and 2): practising recognising and saying the addition and subtraction facts for the pairs of multiples of 10 with a total of 100.

A game for two players

You will need:
- Game board (page 6) for each player.
- Two sets of Game cards (CD-ROM).

How to play

Game 1: Addition

1. Players take a game board each. They shuffle the two sets of cards together and place the pile of cards face down between them.
2. The players take it in turns to turn the top card of the pile over and place it on their Game board on the the other number of the pair to make 100, saying the addition fact.
   For example, if a 60 card is turned over, the player says "60 + 40 = 100" and places the card on their 40. If the number is already covered by a card, the card is returned face down to the bottom of the pile.
3. The winner is the first player to match all the numbers on their target board.

Game 2: Subtraction

As Game 1, but the player says the subtraction fact. For example, if a 60 card is turned over, the player says
"100−60 = 40" and places the card on their 40.

Game 3: Rounding

Maths focus: practising rounding numbers to the nearest 10.

A game for two players

You will need:
- Game board (page 6) for each player.
- A set of 0 to 100 number cards, with the tens numbers and zero removed (CD-ROM).

How to play

1. Players take a game board each. They shuffle the cards and place the pile of cards face down between them.
2. The players take it in turns to turn the top card over. They round the number to the nearest 10 and place the card on the appropriate tens number on their board.
3. The winner is the first player to cover all the numbers on their target board.

Target 100	30	100	10
20	90	50	80
70	40	0	60

Original material © Cambridge University Press 2014

Playing with 20 (1 to 4)

Game 1: 20 Pairs

Maths focus: recognising number pairs to 20.

Games for two players

You will need:

- Game board (page 9).
- A 1–6 dice (CD-ROM).
- (1 and 3) 20 counters (or alternative); different colour per player.
- (2 and 4) 11 to 19 counters (or alternative); depending on target number.

How to play

1. Place the 20 counters in the central oval. Each player uses one pair of Ten frames as their base board. Players take turns to roll a dice and take that number of counters from the oval. They then place one counter in each square on their base board.
2. When there are no more counters in the oval, the players have to stop and count how many counters they each have. Players should recognise that between them they have a number pair to 20. They write down the resulting number pair, for example if Player 1 has 14 counters and Player 2 has 6: 14 + 6 = 20. The player whose turn it is next, announces what number of counters they need in order to make 20, for example Player 1 would say 'I need 6 counters'. The player then rolls the dice. If the number rolled is the number required to make 20, the player automatically wins the game. If not, they either take counters or miss a turn: if the number rolled is less than the number of counters they need, they take that many counters from their opponent; if they roll a number that is greater than the number they need, they miss a turn. Play passes to the next player who starts by writing the new number pair and announces how many counters they need to make 20. Play continues in this way.
3. The winner is the first player to make 20.

Game 2: Playing with 11 to 19

Maths focus: recognising number pairs for target numbers from 11 to 20.

How to play

1. Players decide together what the target number will be. They then colour in squares on the second Ten frame from the bottom up, on their side of the Game board; the coloured squares represent spaces that cannot be used. In doing so, the players create a Game board with the target number of squares on either side of the board. For example, if the players choose 18 as their target number, they each colour in the bottom two squares of their second Ten frame so that there are only 18 white squares on each side of the board.
2. Put a number of counters that matches the target number in the oval. In our example, this would be 18 counters. Players take turns to roll a dice and take that number of counters from the oval. They then place one counter in each square on their base board.
3. When there are no more counters in the oval, the players have to stop and count how many counters they each have. Players should recognise that between them they have a number pair to their target number (in this case 18). They write down the resulting number pair, for example if Player 1 has 8 counters and Player 2 has 10: 8 + 10 = 18. The player whose turn it is next, announces what number of counters they need

in order to make the target number. The player then rolls the dice. If the number rolled is the number required to make the target number, the player automatically wins the game. If not, they either take counters or miss a turn: if the number rolled is less than the number of counters they need, they take that many counters from their opponent; if they roll a number that is greater than the number they need, they miss a turn. Play passes to the next player who starts by writing the new number pair and announces how many counters they need to make the target number. Play continues in this way.

4. The winner is the first player to reach the target number.

Game 3: 20 take away

Maths focus: recognising subtraction pairs to 20.

How to play

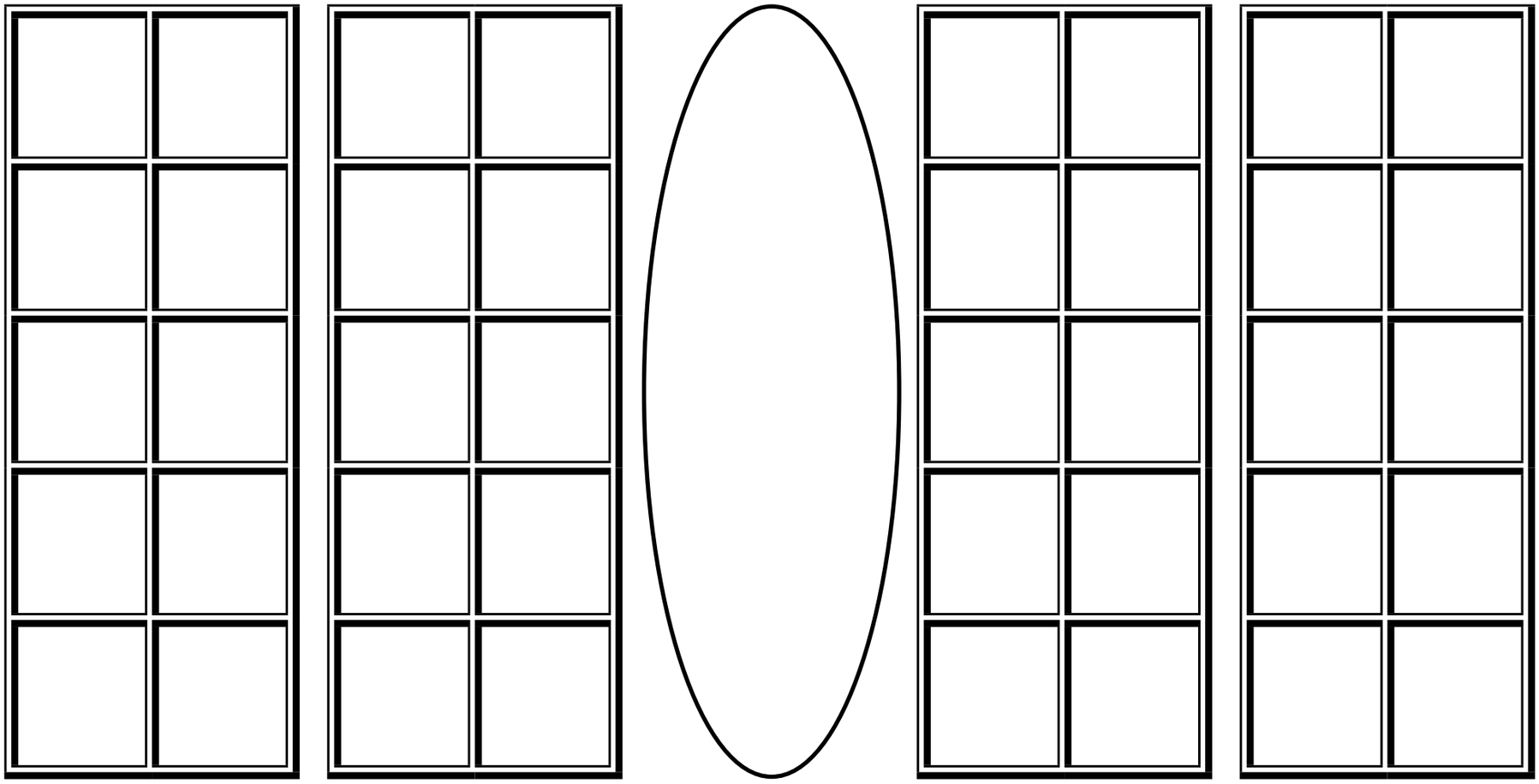
1. Each player starts with 20 counters on their two ten frames. They take it in turns to roll a dice and remove that number of counters from their frame, placing them on the oval. Players can only remove the number of counters that is indicated by the number on the dice. For example, if they throw a 5, but have only four counters, they miss a turn.
2. As a player removes counters from their ten frames, they record the subtraction they have carried out. So if a player starts by rolling a 3 and removes three counters, they can record this as $20 - 3 = 17$. If their next roll of the dice is a 5, they remove five more counters. Their ten frames now show 20 – 8 = 12 as they have taken away eight counters altogether and they have 12 counters left on their ten frames.
3. The winner is the first player to have no counters left on their Ten frames.

Game 4:11 to 19 take away

Maths focus: recognising subtraction pairs for target numbers from 11 to 20.

How to play

1. Players choose a target number and set up the Game board as per Playing with 20 (2), colouring in squares that are not to be used, and putting the appropriate number of counters on the oval.
2. As players remove counters from their ten frames, they record the subtraction they have carried out. So if the target number is 18 and a player starts by rolling a 3 and removes three counters, they can record this as $18 - 3 = 15$. If their next roll of the dice is a 5, they remove five more counters. Their ten frames now show $18 - 8 = 10$ as they have taken away eight counters altogether and as they have ten counters left on their ten frame.
3. The winner is the first player to have no counters left on their Ten frames.



Original material © Cambridge University Press 2014

Adding game

Maths focus: practising addition strategies.

A game for two players

You will need:

- Game board (page 11).
- A counter (or alternative) for each player.
- A 1–6 dice or spinner (CD-ROM).

How to play

1. Players place their counter on Start. They take it in turns to roll the dice (or to spin the spinner) and move their counter that number of spaces.
2. Players collect the numbers they land on by recording them on a piece of paper or whiteboard. When they reach Finish, they total their numbers any way they choose. They then swap lists and check each other's calculation by adding the numbers in a different way.
3. The winner is the player with the greatest total.

Start		2	8	4		3	7	5
5		6		7		6		7
3		2		3		2		6
7		9		6		9		3
2		4		5		5		4
8		8		9		8		9
4		3		4		4		8
2		5		2		6		2
3	9	2		8	5	3		Finish

Original material © Cambridge University Press 2014