The Bare Necessities

Key Stage 1

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A set of maths games provided by the Wiltshire Primary Maths Team. These can be used at home as a fun way of practising the 'bare necessities' in maths – skills that children will need to be confident with in order to succeed in and enjoy maths. We hope that you will have fun playing these games at home with your child! Once learnt the children can also play them with brother/sisters and friends. Enjoy!
If you have any good games of your own we would love to hear about them.

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Game 1 – Count'em

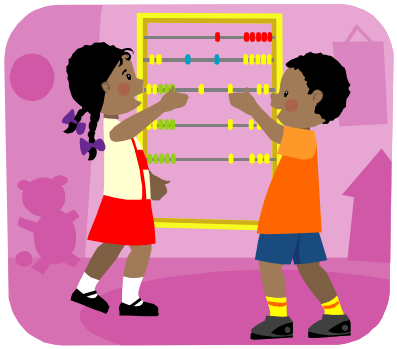
Skill to be learnt To count reliably up to 20 objects (recognising that when rearranged the number of objects stays the same).

What you will need: A box of things to count (household items, cars, buttons etc.)

How to play: Players take it in turns to grab a 'handful of things', count them and record the number. Each player must try and get each number from 10 – 20. The first person to do so is the winner.

Talk points: When counting the objects you could encourage your child to line up the objects to help with counting. Encourage them to point to the object as they say the number, taking time to count each item carefully.

Extension of this game: To develop skills in estimating (having a good guess) talk to your child about how many objects they think they might have taken out of the box before they count them.



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Game 2 – Ladder Game

Skill to be learnt: To read and write numbers from 0-20 and beyond. Use knowledge of place value (number size) to put numbers on a number line.

What you will need: 0 – 20 number cards, ladder board.

How to play: Shuffle cards and place in a pile, face down. Players take it in turns to turn over a card. Both players decide where to write the number on their ladder board. Once a number is placed it cannot be moved! Keep going until 5 cards have been turned over. The aim is to place all the numbers in order. If you can't place one, it must be written in the bin! The winner is the person to write the most numbers in order.

Talk points: Talk about the size of the number as it is revealed. Encourage your child to think about whether there would be many numbers before or after the one selected – this can help decide where to place it on the ladder. For example if a 2 is selected talk about the fact that there is only 1 number card smaller than this one so it would be a good idea to put this at the bottom of your ladder. Try and use language such as bigger, smaller, more, less when talking about the numbers.

Extension of this game: Use a ladder with space to order 9 numbers. Begin to use less than (<) or greater than (>) symbols when comparing numbers.

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Game 3 – In betweenies

Skill to be learnt: To read and write numbers from 0-20 and beyond. Use knowledge of place value (number size) to put numbers on a number line.

What you will need: 0 – 20 number cards

How to play: Shuffle cards and place in a pile, face down. Player A turns over 3 cards and puts them in order. Player B turns over 1 card and if it can be placed between any of player A's cards they score a point. Swap. The first player to 5 points wins.

Talk points: If your child needs support to order the numbers talk about which numbers are missing. You may recite the numbers in order together. You could use a number line to help find the correct order of the numbers selected. Again try and use language such as bigger, smaller, more, less when talking about the numbers.

Extension of this game: Increase the numbers on the cards to include larger numbers.

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Game 4 – More or Less

Skill to be learnt: To say the number that is 1 more or less than any given number.

What you will need: Red/blue 100 grid, dice, counters.

How to play: Players take it in turns to throw dice and move their counter. If you land on a blue square, move on 1. If you land on a red square, move back 1. The first player to reach 100 is the winner.

Talk points: As you move your counters, teach your child that you don't count the square you are on but start counting from the next one. Link moving back one with the vocabulary of 1 less, and moving on one with the vocabulary of 1 more.

Extension of this game: Change to moving 10 more or 10 less by moving vertically up and down the 100 square. This gives you opportunities to discuss what happens when you add/subtract 10.

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Game 5 – You Choose

Skill to be learnt: To say the number that is 1 more or less than any given number.

What you will need: 0-20 cards, 100 grid, coloured counters.

How to play: Players take it in turns to turn over a card and decide whether to cover a number that is one more or one less than the number card on the 100 square. The first to cover 3 numbers in a line is the winner.

Talk points: As you move your counters, teach your child that you don't count the square you are on but start counting from the next one. Link moving back one with the vocabulary of 1 less, and moving on one with the vocabulary of 1 more.

Extension of this game: Use number cards up to 50 to increase choices.

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Game 6 – Flashcards

Skill to be learnt: To recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts.

What you will need: 0-10 cards.

How to play: Player A shows a card to player B who has to say the number that is needed to add to that number to total 10 (its complement). Time how long it takes for player A to repeat this for all number cards. Swap roles and try and beat each others time.

Talk points: To begin with model how you might work out what the complement is if you do not know this fact off by heart (use fingers, count up from the number on the card to 10 etc.)

Extension of this game: Use number cards up to 20.

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Game 7 – Snap

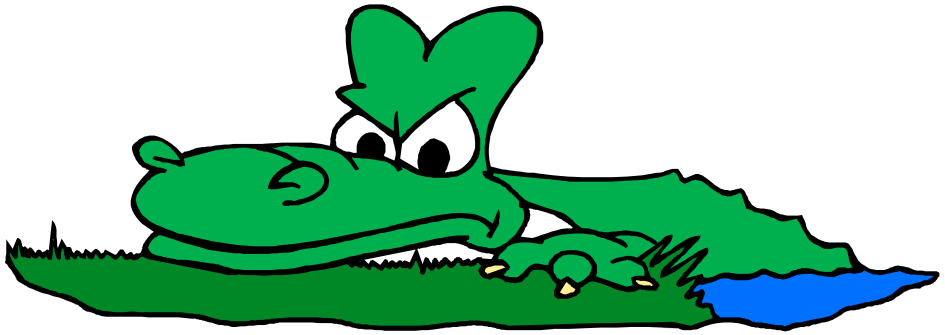
Skill to be learnt: To recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts.

What you will need: A set of 0-10 cards for each player.

How to play: Deal out the shuffled 0-10 cards and play ‘Snap’. Players say ‘snap’ when the two cards add to 10 (e.g. an 8 is placed on top of a 2).

Talk points: To begin with model how you can anticipate what card you need to be laid next e.g. if an 8 is at the top of the pile you may say ‘I need you to put down a 2 as that makes 10’

Extension of this game: Use number cards up to 20.



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Game 8 – Pairs Game

Skill to be learnt: To recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts.

What you will need: 2 sets of 0-10 cards.

How to play: Spread out two packs of 0-10 cards face down on the table. Players take it in turns to reveal 2 cards. If the 2 cards add to make 10 then you can keep the pair, otherwise turn them back over. The player who collects the most pairs is the winner.

Talk points: Use questions such as ‘What is the total?’, ‘What do these two number add up to?’ when revealing the cards. As your child becomes more confident in their knowledge of pairs that make 10 you could encourage them to tell you which number they are looking for after they have revealed the first number.

Extension of this game: Use number cards up to 20.

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Game 9 – Fishy, fishy fingers!

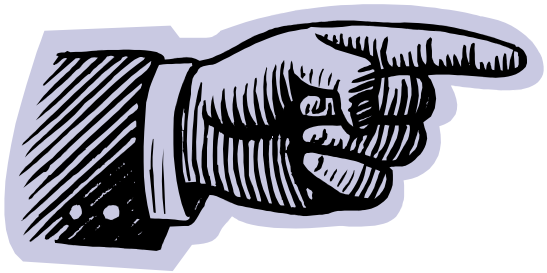
Skill to be learnt: To recall all pairs of numbers with a total of 10 and addition facts for totals to at least 5; work out the corresponding subtraction facts.

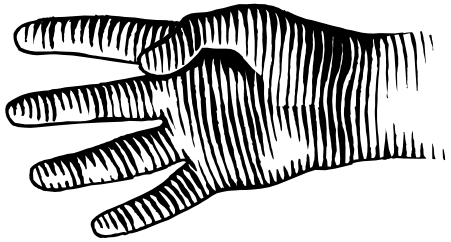
What you will need: Yourselves!

How to play: Two players face each other and after both chanting 'fishy, fishy fingers (in the same way as you would if playing 'paper, scissors, stones)', hold up some fingers on one hand, keeping the other hand behind your back. The first player to say the total of the fingers shown scores a point. First player to 10 points wins.

Talk points: Model how to count on from the number you know you are going to show on your fingers e.g if you know you are going to show 3 fingers have this number ready in your head and be ready to add on the number of fingers your opponent shows.

Extension of this game: Use both hands to show fingers to practice pairs to 20.





'Fishy, fishy fingers!

…….'5!'

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Game 10 – Ten special things

Skill to be learnt: To use the vocabulary of addition and subtraction.

What you will need: A set of 10 ‘special things’ for each player, dice.

How to play: Each player chooses 10 special things and lays them out in front of them. Take it in turns to throw the dice and choose that number of items from their opponents set. The first player to gain all of their opponents items wins.

Talk points: As you take items from your child you could say things like ‘ If I take 3 from you, you will have 7 left’ Encourage your child to do the same. You can compare at different stages who has more/less items.

Extension of this game:

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Game 11 – Target

Skill to be learnt: To use the vocabulary of addition and subtraction.
What you will need: 0-9 spinner, paper, pen
How to play: Players start with 0. They take turns to spin the spinner, choose whether to add or take away the number. First to make exactly 10 wins.
Talk points: Model strategies for adding and subtracting (e.g. counting on or back from the number you have, using a number line or objects to support with counting).
Extension of this game: Use number cards up to 20 instead of the spinner and make 20 the target number.

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Game 12 – How many?

Skill to be learnt: To count up to 100 objects by grouping them and counting in tens, fives or twos.

What you will need: A box/jar of roughly 100 things e.g. a box/jar of pasta.

How to play: One player grabs a handful of cubes. Both players estimate (guess) how many things have been taken out (this could be written down). Players decide together whether to count in 2's, 5's or 10's to find how many. Closest estimate gets a point. The first player to get 10 points wins.

Talk points: Model counting in 2's, 5's, 10's. Discuss what is a good estimate - for example if you only take a small handful you would estimate a smaller number than if you took a larger handful.

Extension of this game:

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Game 13 – Biggest Wins

Skill to be learnt: To explain what each digit in a two digit number represents, including number where 0 is a place holder e.g.30

What you will need: 0-9 spinner, place value charts

How to play: Players throw the dice and choose whether to use the digit as tens or ones in a two digit number. Record this on the place value chart. Throw the dice again to generate the second digit which must go in the empty space. When both players have made a 2 digit number, biggest wins and score a point. The first player to ten points wins.

Talk points: Discuss when the dice is rolled where it is best to place that digit (tens or units). For example if a 9 is rolled you may say 'I will put this in the tens column because this is the highest number of tens I can get with this dice'.

Extension of this game: Extend to 3 digit numbers.

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Game 14 – Tens and Ones

Skill to be learnt: To partition (split) numbers into tens and units.

What you will need: 0-9 dice, 1-100 grid

How to play: Players take turns to throw the dice twice and make a 2-digit number (e.g. if you throw a 5 and a 4 you can choose to make 54 or 45). Cover that number on the grid. The first to get 3 in a row wins.

Talk points: As you begin to cover numbers on the grid you will be able to discuss what number you need to roll next in order to create the number needed to get 3 in a row.

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Game 15 – Split

Skill to be learnt: To partition two-digit numbers in different ways, including into multiples of 10 and 1.

What you will need: 0-9 dice, 1-100 grid.

How to play: Throw the dice twice to make a 2-digit number. Partition it into 'a multiple of 10 and a bit'. Cover these 2 numbers on the grid e.g. 73 = 50 + 23. If a number is already covered players can replace their opponents counter. First to get 3 in a row wins.

Talk points: As you begin to cover numbers on the grid you will be able to start to think tactically and discuss this with your child: if you need to cover 30 to get 3 in a row how can you partition 43 to make sure you can cover the 30?

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Game 16 – Order!

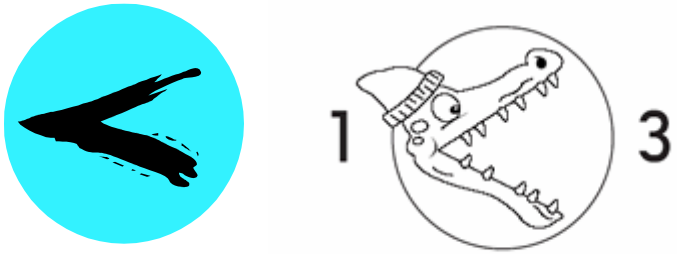
Skill to be learnt: To order two digit numbers and position them on a number line; use the greater than (>) or less than (<) signs.

What you will need: 0-9 cards and ‘order boards’.

How to play: Players take it in turns to turn over a card and choose where to write it on their board. Once a number is placed it must not be moved! Keep going until both players have turned over 4 cards. Players score a point for making a true number sentence e.g. 34<43 (34 is less than 43)

Talk points: You can discuss the need to create a smaller number on the left hand side of the board so any small numbers revealed would be best placed on this side. Emphasize ways to remember the meaning of the signs (the smallest part of the sign is always nearest the smallest number).

Extension of this game: Extend to larger numbers.



Less than

Greater than

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Game 17 – Line up!

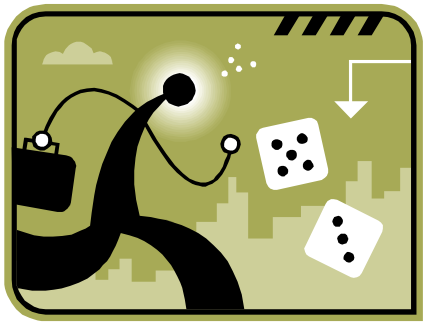
Skill to be learnt: To order two digit numbers and position them on a number line; use the greater than (>) or less than (<) signs.

What you will need: 0-9 dice, 0-100 blank number line, coloured pencil for each player.

How to play: Players take it in turns to roll the dice to generate a 2 digit number. The first roll represents the tens and the second is the units. Plot the 2 digit number on the number line. First to get 4 in a line wins.

Talk points: On an empty number line your child will need to have an idea about where to position the number that has been generated. You can therefore discuss how to correctly position the number e.g. use markers for multiple of 10 to help.

Extension of this game: Extend to 3 digit numbers on a 0-1000 number line.



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Game 18 – Make 100

Skill to be learnt: To recall all pairs of multiples of 10 with totals of up to 100

What you will need: Multiples of 10 cards

How to play: Lay out place value cards face down. Each player writes down the multiples of 10 from 10-100. Players take turns to reveal a card. They work out the complement to 100 and tick it on their list. First to tick all multiples of 10 wins

Talk points: To help your child work out the complements to make 100 draw comparisons with pairs to 10 e.g. you know that 9 + 1 = 10 so you can use this to help you work out that 90 + 10 = 100.

Extension of this game: Begin to explore other complements to 100 e.g. 45 + 55

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Game 19 – Jump on

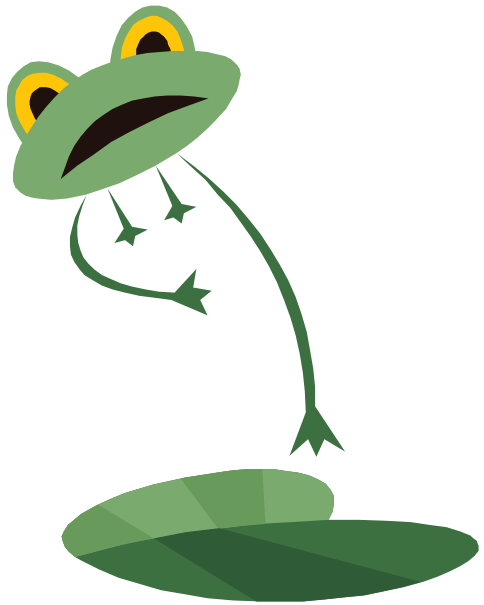
Skill to be learnt: To add or subtract mentally a one-digit number or a multiple of 10 to or from any two-digit number.

What you will need: Blue/red 1-100 grid, counters, dice.

How to play: Players start at 1. Take it in turns to throw the dice and move their counter. If they land on blue, move on 10. If they land on red, move on 5. The winner is the first to reach 100.

Talk points: When adding 10 encourage your child to move vertically down one square for adding 10 (rather than moving horizontally along 10 squares). Discuss what is happening to the number – the tens gets one bigger while the units digit remains the same. When adding other numbers always ensure your child starts counting on from the next square not the one their counter is currently on.

Variation of this game: Change the numbers you have to move on when landing on a red/blue square. Change to 'Jump back' by starting at 100 and subtracting when you land on a red/blue square. The first to reach 0 is the winner.



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Game 20 – 2's and 5's

Skill to be learnt: To know by heart multiplication facts for 2, 5 and 10 times-tables and the related division facts.

What you will need: 1-100 grid, counters, dice

How to play: Players start at 1. Take it in turns to throw the dice and move their counter. If they land on a multiple of 2 or 5 they score a point. A multiple of both scores 2 points! The winner is the player with the most points when a player reaches 100.

Talk points: Look at patterns created by multiples of 2 and 5 on the 100 square. Discuss the fact that multiples of 2 are always even numbers and that multiples of 5 always end in 5 or 0.

Extension of this game: Begin to introduce other times tables as the children learn them at school.

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Game 21 – Beat the clock

Skill to be learnt: To know by heart multiplication facts for 2, 5 and 10 times-tables and the related division facts.

What you will need: 0-9 cards

How to play: Shuffle pack of 0-9 cards. Against the clock, turn over a card and multiply it by 2, 5 or 10, saying the answer to the other player. Repeat until all cards are turned over. Keep a record of your time, try to beat each other's time and your own personal best.

Talk points: To begin with allow your child to choose what they multiply the number by. As they become more confident use 2, 5 and 10 cards which you hold up randomly as your child reveals their number card and this is what they have to multiply by. Try and think of tricks to help your child speed up e.g. think of x2 as doubling.

Extension of this game: Use other times tables as your child becomes familiar with them.

Game 22 – Fishy, fishy fingers (part 2!)

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Skill to be learnt: To know by heart multiplication facts for 2, 5 and 10 times-tables and the related division facts.
What you will need: Yourselves!
How to play: Two players face each other and both chant ‘fishy, fishy fingers (in the same way as you would if playing ‘paper, scissors, stones)’.One player has to hold up 2, 5 or 10 fingers, the other can choose any number of fingers. The first player to say the product (the total when 2 numbers are multiplied together e.g. the product of 2 and 5 is 10) of the fingers shown scores a point. First player to 10 points wins. Then swap roles.
Talk points: Try and think of tricks to help your child remember their times tables e.g. think of x2 as doubling.
Extension of this game: Both players show any number of fingers – this will allow practice of tables up to 10. Introduce new multiples as and when the children have an understanding of them.