Learning to Count from 0 – 20 forwards and backwards

Use these Activity Notes with the Counting 0-20 Activity Booklet and the FunKey Counting Cards Set 1, cards 0 – 20.

There are also four activity videos on our website, which show you how to do activities 3, 7, 8 and 9.

As you work through the Activity Booklet you will be targeting the following skills:

- Counting to 20 forwards, starting on any number
- Counting backwards from 20, starting on any number
- Identifying one more or one less up to 20
- Reading numbers up to 20
- Ordering numbers up to 20

How to use a FunKey Maths Mentoring Activity Booklet

Our activity booklets set out a series of activities which help children develop key skills in the target maths area. To really consolidate skills and build confidence a child needs to have **repeated opportunities to practise**. Remember that with younger children**, little and often** is a winning formula. 15 minutes at a time is enough to make progress. If you can manage **three sessions of 15 mins a week** you will make a difference.

You should do the activities in order, but the child doesn't have to be perfect at an activity before moving on**. Keep coming back to earlier activities for extra practice**.

In our Activity Booklets, you will see an activity and then three columns, with one, two or three stars at the top of the columns. Every time you do an activity, give the child a tick. **All children like encouragement!**

If the child is just starting out with a new activity and is still finding it tricky, give them a tick in the one-star column. When they are getting good, give them a tick in the two-star column. When they can do it confidently, the tick goes in the three-star column.

You are aiming at a minimum of **three ticks in the three-star column**. Brains forget, so you want the child **succeeding at the activity on three different days** before you can feel confident they have really got it.

When they have three ticks in all the columns, you can sign and date the last page of the Activity Booklet and celebrate with them!

If you have questions, or want advice, email us on hello@funkeymaths.com or contact us on Twitter @FunKeyMaths where we also post details of new games, activities and resources.

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Activity 1: Count 20 objects, Count 20 actions *(Count to 20 in 1s)*

Find lots of reasons to count to 20. Here are some ideas. Try to make it active and fun. If you can, be outside. If you are counting things, you don't have to sit at a table!

- Count objects. (1p coins are great)
- Do "Mad Marching" to 20 (any kind of funny walking/moving around)
- Skip to 20
- Do 20 star jumps
- Play catch, counting to 20 as you go
- Play Hide and Seek, counting to 20 before you seek!

Activity 2: Rocket Lift Off from 10 *(Counting back in 1s from 10)*

Stretch up tall, arms pointing to the sky / ceiling. Count down from 10 in 1s. As you count, crouch down smaller and smaller. When you get to Zero, shoot back into the air. Your voice and your body language make this simple activity fun and repeatable! Go for it!

Activity 3: Now you see it, Now you don't! *(Counting back in 1s 20 -10)*
(Video available on www.funkeymaths.com)

Put the cards 10 – 20 in order in a number line going from 10 on the left to 20 on the right.

Count backwards down the number line out loud. Do this a few times pointing to the cards as you count. Then turn one card over and try again. Keep pointing as you count.

If the child can still count confidently, turn another card over and count again. Keep turning cards over, keep counting and keep pointing until all the cards are face down and the child is still counting confidently.

If at any point the child starts forgetting some of the numbers which are face down, do some more practice before turning any more cards face down. If the child is starting to forget the numbers they can't see, it is better to return to the activity another day and work up slowly to turning all the cards face down.

<u>Pay particular attention to how children are saying -teen numbers</u>. Many children confuse numbers ending in -teen and -ty, for example they confuse sixteen and sixty. When you are counting out loud, really stress the -teen sound, and encourage them to do the same.

Point out the spots on the -teen cards! It will help the child notice the number 1 at the start of the -teen numbers.

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Activity 4: Rocket Lift Off from 20 *(Counting back from 20 in 1s)*

Now try counting backwards from 20 as you do a Rocket Lift Off (see Activity 2). Count with the child. Don't forget to emphasise the -teen sounds. Stretch up tall. Crouch down small. Make it fun!

Once you've done this once, make sure to practise this at the start of EVERY new session. Children need lots of practice to lodge this in their long-term memories.

Activity 5: Maze Game *(Reading numbers)*

For this activity take a piece of A4 and write about 10 numbers between 0 – 20 on the sheet. It should look like this.

There are lots of -teen numbers on our sheet as these are the tricky ones to read, so they need practising!

First, ask the child to say each of the numbers on the sheet. As they say a number correctly, put a small circle around that number.

Practise saying any numbers the child doesn't know.

When all the numbers are circled, players take it in turns to give each other a challenge. The challenge is to join up two of the numbers. But there is a catch! When you are joining numbers, you must not touch any of the other circles or lines on the page. So, as the game goes on, it gets harder and harder to find a safe route across the page. Numbers can be joined in any way, and more than once.

A player wins when the other player can't complete a challenge or touches another line.

Top Tip: try not to point at the numbers as you give your challenge!

Activity 6: Noughts and Crosses *(Reading numbers)*

For this activity make a noughts and crosses board filled with numbers 0 – 20 It should look like this.

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Players take it in turns to read one of the numbers in the grid. If they say it right, they can put their symbol (a nought or a cross) over the number. If they say it wrong, they miss their turn.

To win, a player needs to have three symbols in a row or a column, or diagonally through the middle. When a player thinks they have won, they draw a line through their three symbols.

When the game is over, make a new board and play again!

Activity 7: Slap Bingo

(Video available on www.funkeymaths.com)

Game 1 is a fun way to help a child who still needs practice reading numbers.
Game 2 is a fun way to practise the concepts of “one more than.”
Game 3 is a fun way to practise the concept of “one less than.”

The phrases “one more than” and “one less than” are difficult for some children to understand and need a lot of practice. Please use these phrases consistently rather than using questions like “What comes before 14?” or “What comes after 14?”. These questions are not helpful as they are not precise enough…. there are so many numbers before and after any number 14….!

Game 1
You say one of the numbers on the cards. You both race to slap that card. The first to slap the card takes it. The winner is the one with the most cards, when all the cards have gone.

Game 2
This time, instead of saying the numbers you can see on the card, you give clues using the phrase “one more than”. So for 14, you say, “one more than 13”.

Game 3
This time, instead of saying the numbers you can see on the card, you give clues using the phrase, “one less than”. So for 14, you say, “one less than 15”.

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After you have practised these games a few times, let the child have a go at giving the clues. If the child finds this difficult (many do) it will be helpful to the child if they cards are put back in the number line as you use the phrases “one more than” and “one less than”.

Activity 8: Turnover *(One more than, one less than)*
(Video available on www.funkeymaths.com)

Ask the child you are working with to order the cards from 0 – 20. The zero should be on the left-hand side and the twenty on the right.

When the order is correct, turn all the cards face down. The child then hides their eyes while you take out one card. Hide the gap so that they can’t see which card is missing. The challenge is for the child to work out which card is missing.

To do this, the child picks a card and turns it face up. They are then allowed to turn over the cards either side of their chosen card, but only when they have correctly predicted what these cards should be. In other words, if they pick 11, they would say something like …

“One more than 11 is 12.” They then turn over the card they think is 12. If the card is 12, they haven’t found the missing card so must continue. They then say, “One less than 11 is 10.” They can turn over the card they think is 10. If it isn’t 10, they know 10 is the missing number! If it is 10, then they can choose another card to turn over, and then identify and turn over one more and one less. They repeat the process until they work out which card is missing.

Activity 9: Bingo +/- 3 *(Counting on, counting back from any number 0-20)*
(Video available on www.funkeymaths.com)

Each player makes a bingo board with four squares and chooses four different numbers from 3 – 17 to go in the squares.

Shuffle the cards 0 – 20. Place them face down in a pile.

Turn the top card over. Count on three from the number on the card. If the number you get to is on anyone’s bingo board, they can cross it off.

Now look at the number on the card again and count back three. If the number you get to is on anyone’s bingo board, they can cross it off!

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For example, if the top card is 8, you count on three 8 – 9 – 10 – **11!** You can cross off 11. Then you count back three 8 – 7 – 6 – **5!** You can also cross of 5! The winner is the first player to cross out all the numbers on their bingo board.

Activity 10: Hold the Line *(Ordering numbers 0 – 20)*

(You can watch this game with cards ranging from 0 – 100 on www.funkeymaths.com in the video section for Counting 0 – 100, Activity 7)

The idea of this game is that both players want to build a number line. But only one player gets to do this at any point in the game. The player who has picked the highest card at any point in the game is the one who builds the number line. To win, you have to be the one in control of the number line when all the cards have been picked.

- Place all the cards 0 -20 face down, then remove about half of them.
- Don't look at the discarded cards!
- Both players pick a card from the ones left. The player with the higher card takes the other player's card and starts a number line with the two cards.
- For the rest of the game, players take it in turns to pick another card.
- If the card picked is lower than the highest card in the number line, the new card gets slotted into the number line.
- If the player who is not controlling the number line picks a card which is higher than the highest number in the number line, they take all the cards and they build the number line.
- The winner is the player who controls the number line when all cards have been picked, or the player that picks card 20 at any point in the game.

As you play, encourage the child to think about leaving appropriate gaps to represent missing numbers. So, for example, you might leave a large gap between 2 and 10 but a much smaller gap between 10 and 12. It will not be exact, just indicative. Doing this will help the child to be able to visualise a number line, a key skill in building number sense.

When the number line is built, it is a good opportunity to talk about numbers. Work out which numbers are missing, and try to practise these key phrases:

- One more than / One less than
- Highest number / Lowest number
- Higher than / Lower than
- Greater than / Less than
- Between

Congratulations! You've finished the unit!
The next unit to try is Counting 0-100!

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