



## Effective ways to practise children's maths skills using number cards, counters and dice!

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A simple set of resources can provide an invaluable way to practise and master the early concepts in Maths.

In this document, we've listed a series of simple and effective activities that use number cards, counters and dice to help strengthen children's understanding of the concepts that underpin primary mathematics.

The activities are aimed at Early Years and Primary children. Using the activities regularly, even if they become easy, is important for strengthening maths skills and mental recall – daily practise is the best way to become a confident mathematician!

Don't rush through the activities - have fun playing at your own pace and make sure you are confident before moving on to more challenging activities.

We also hope our list will inspire you to think of your own activities, as there are many more to think up.

Enjoy!

The Dig1t Games team



Resource Bags are available at [Dig1t.com](http://Dig1t.com)

### Contents

- Number cards (0 to 20)
- 40 counters (2 colours)
- 4 playing pieces
- 2 dice
- Choke warning label

# Index of Activities



|                                        |    |
|----------------------------------------|----|
| Reading and Talking about Numbers..... | 3  |
| Comparing numbers.....                 | 5  |
| Ordering numbers.....                  | 8  |
| Number bonds.....                      | 10 |
| Addition and Subtraction.....          | 11 |
| Multiplication and Division.....       | 13 |

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  - Make sure you are confident with the activity you are completing before moving on.
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## Reception & Year 1

1. Roll a die and call out the number you roll.  
Keep practising until you are able to recognise all the numbers on the die without counting the spots.
2. Roll a die, call out the number you roll and count out the same number using counters.
3. Use number cards **1 to 6**, counters and a die.  
Pick a number card and read the number on the card.  
Count out the same number using counters and find the number on the die.  
Keep practising until you are familiar with the numbers 1 to 6.
4. Repeat activities 1, 2 & 3 using two dice, counters and number cards to **1 to 12**.
5. Place number cards **0 to 5** face-up in any order in front of you.  
Ask an adult to call out the numbers on the cards at random and then point to the numbers as they are called out.  
Add more number cards until you are familiar with the numerals 0 to 20.
6. Repeat activity 5 and for each number called out, count out the same number using counters.
7. Look for the numbers you have learned around your house or when you go out.  
Discuss what these numbers mean and why they are used.

## Year 1, 2 & 3

8. Practise reading and spelling the numbers from 0 to 20 using the number cards.
9. **Reading 2-digit numbers:** On a piece of paper, create a **two-column** table, making sure each column is wide enough to fit your number cards onto.  
Title the two columns with the place-value headings: **“Tens”** and **“Ones”**.  
Using number cards **0 to 9**, place “3” under the “Tens” column then pick another card and place it in the “Ones” column.  
Read the number you have made and talk about how many tens and ones there are in this number.  
Repeat with the rest of the number cards, keeping “3” in the “Tens” column.  
Write the numbers you make in words to practise your spelling.  
Repeat using “4” in the “Tens” column and continue until you’ve reached “9” in the “Tens” column.

## Year 2 & 3

To expand the following activity, make a duplicate set of number cards **0 to 9**.

A printable number card template is available at [Dig1t.com/game-resources](http://Dig1t.com/game-resources).

10. Shuffle one or both sets of number cards **0 to 9** and place them face down in a pile.  
Using the top two cards, make a 2-digit number to read and write in words (for spelling practice).  
Say out loud how many Tens and how many Ones there are in your number.  
Repeat with more 2-digit numbers.

To expand the following activities, make a duplicate set of number cards **0 to 9**.

A printable number card template is available at [DigIt.com/game-resources](http://DigIt.com/game-resources).

## Year 2, 3 & 4

11. Shuffle one or both sets of number cards **0 to 9** and place them face down in a pile. Using the top three cards, make a 3-digit number to read and write in words (for spelling practice). Answer questions on the place values e.g., How many Tens are in this number? Repeat with more 3-digit numbers.

## Year 3, 4 & 5

12. Shuffle one or both sets of number cards **0 to 9** and place them face down in a pile. Using the top four cards, make a 4-digit number to read and write in words (for spelling practice). Answer questions on the place values e.g., How many Hundreds are in this number? Repeat with more 4-digit numbers.

## Year 4, 5 & 6

13. Shuffle one or both sets of number cards **0 to 9** and place them face down in a pile. Using the top five cards, make a 5-digit number to read and write in words (for spelling practice). Answer questions on the place values e.g., How many Hundreds are in this number? Repeat with more 5-digit numbers.
14. **Reading decimals:** On a piece of paper, create a **two-column** table with a decimal point in between the columns, making sure each column is wide enough to fit your number cards onto. Title the two columns with the place-value headings: **"Ones"** and **"Tenths"**. Shuffle number cards **0 to 9**, and place them face down in a pile. Use the top two cards to place in the "Ones" and "Tenths" columns. Read the decimal you have made and answer questions on the place values e.g., How many Tenths are in this decimal? Repeat this for more decimals.

## Year 5 & 6

15. Shuffle one or both sets of number cards **0 to 9**, and place them face down in a pile. Using the top six cards, make a 6-digit number to read and write in words (for spelling practice). Answer questions on the place values e.g., How many Ten-thousands are in this number? Repeat with more 6-digit numbers.
16. Shuffle one or both sets of number cards **0 to 9**, and place them face down in a pile. Using the top seven cards, make a 7-digit number to read and write in words (for spelling practice). Answer questions on the place values e.g., How many millions are in this number? Repeat this for more 7-digit numbers.
17. Continue this with 8-digit numbers.
18. **Reading decimals:** On a piece of paper, create a three-column table with a decimal point after the first column, making sure each column is wide enough to fit your number cards onto. Title the three columns with the place-value headings: **"Ones"**, **"Tenths"**, and **"Hundredths"**. Shuffle number cards **0 to 9**, and place them face down in a pile. Use the top three cards to place in the "Ones", "Tenths" and "Hundredths" columns. Read the decimal you have made and answer questions on the place values e.g., How many Tenths are in this decimal? Repeat this for more decimals and more decimal place columns.

# Comparing Numbers



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## Reception & Year 1

1. Count out an equal number of each of your coloured counters and other items like pasta or pens and describe the equal groups of items e.g., “there are 5 counters and 5 pens”, or “there are the same number of pens as there are counters”.
2. Pick a set of number cards from numbers you are familiar with.  
Pick one of your number cards and count out that many counters.  
Notice that the number card you have picked is **equal** to the number of counters you have counted out.
3. Split any **even** number of counters into two **unequal** groups.  
Talk about the two groups of counters using terms such as “more than”, “less than”, “fewer”, “most”, “least”.  
Move the counters so the two groups are equal and talk about how you did this.
4. Create three groups of counters with a different number of counters in each group.  
Compare the groups using comparative terms such as “more than”, “less than”, “fewest”, “most”, “least” etc.

## Year 1 & 2

5. Pick two number cards from a selection of numbers that you are familiar with and compare them using comparative terms such as “more than”, “less than”, “fewer”, “most”, “least” etc. Initially, it may help to use counters to represent the numbers you pick but aim to only use the number cards. Repeat this with three or more number cards.
6. **Higher or Lower:**  
Select any ten (or more) number cards and place them face down in a line.  
Turn over the first card and then guess whether the next card will be higher or lower.  
If you guess correctly, guess higher or lower again with the next card. Carry on until you guess incorrectly.
7. Shuffle a selection of number cards and deal them equally between 2 or more players.  
Take turns to place one of your number cards down.  
Whoever places the highest card wins those cards.  
Keep playing until you have used all your cards and then check who has won the most cards. Play again with the lowest card winning each round.

## Year 1, 2 & 3

For the following activity, write the symbols: greater than (>) and less than (<) on 2 pieces of card or paper.

8. Using number cards **0 to 20**, pick two number cards at random and compare them by creating number sentences using your “less than” and “greater than” symbol cards.  
Repeat this with more number cards.

# Comparing Numbers



For the following activities, write the symbols: greater than ( $>$ ) and less than ( $<$ ) on 2 pieces of card or paper and make a duplicate set of number cards **0 to 9**.

A printable number card template is available at [Dig1t.com/game-resources](http://Dig1t.com/game-resources).

## Year 2 & 3

- Using both sets of number cards **0 to 9**, pick four number cards to make two 2-digit numbers.  
Read your numbers and use your "less than" and "greater than" symbol cards to create number sentences that compare your two numbers.  
Repeat this with more 2-digit numbers.

## Year 2, 3 & 4

- Using both sets of number cards **0 to 9**, pick 6 number cards to make two 3-digit numbers.  
Read your numbers and use your "less than" and "greater than" symbol cards to create number sentences that compare your two numbers.  
Repeat this with more 3-digit numbers.

## Year 3, 4 & 5

- Using both sets of number cards **0 to 9**, pick 8 number cards to make two 4-digit numbers.  
Read your numbers and use your "less than" and "greater than" symbol cards to create number sentences that compare your two numbers.  
Repeat this with more 4-digit numbers.

## Year 4, 5 & 6

- Using both sets of number cards **0 to 9**, pick 10 number cards to make two 5-digit numbers.  
Read your numbers and use your "less than" or "greater than" symbol cards to create number sentences that compare your two numbers.  
Repeat this with more 5-digit numbers.
- Comparing decimals:**  
Draw a large decimal point on two small pieces of card or paper.  
Use your two decimal point cards and any four number cards to make two decimal numbers (each number should be to 1 decimal place, e.g., 9.2).  
Read your decimals and use your "less than" or "greater than" symbol cards to create number sentences that compare your two decimal numbers.  
Repeat this with more decimals.

## Year 5 & 6

- Using both sets of number cards **0 to 9**, pick 12 number cards to make two 6-digit numbers.  
Read your numbers and use your "less than" or "greater than" symbol cards to create number sentences that compare your two numbers.  
Repeat this with more 6-digit numbers and/or 7-digit numbers.
- Comparing decimals:**  
Draw a large decimal point on two small pieces of card or paper.  
Use your two decimal point cards and any six number cards to make two decimal numbers (each number should be to 2 decimal places, e.g., 9.22).  
Read your decimals and use your "less than" or "greater than" symbol cards to create number sentences that compare your two decimals.  
Repeat this to make more decimal comparisons.

## Comparing Numbers



16. **Comparing more decimals:**

Copy out the incomplete number sentences below and use your greater than (>), less than (<) or equals (=) symbols to complete them:

0.1            0.01

0.12          0.2

1.5            1.08

2.34          2.4

Write out your own decimal number sentences similar to these.

Make up your own questions to challenge a friend – make sure you know the answers so you can check their work!

# Ordering Numbers



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## Reception & Year 1

1. Make three groups of counters that have a different number of counters in each group and order the groups from smallest to largest.  
Repeat this:
  - ordering the groups from largest to smallest,
  - using more groups of counters,
  - making sure that each group contains one more counter than the previous group.

## Year 1 & 2

2. Choose a set of three consecutive number cards and order them from smallest to largest. Start with 0, 1, 2 and 2, 3, 4 and build up to the larger numbers. Make sure that you shuffle the cards before you order them!  
Repeat this:
  - ordering the number cards from largest to smallest;
  - using 4 consecutive number cards, then 5 and so on.
3. Using number cards you are familiar with, pick three number cards at random and order them from smallest to largest.  
Repeat this:
  - ordering them from largest to smallest
  - using more than 3 cards.
4. Order the number cards 0 to 20 consecutively and place them face down in front of you and practise counting in 2s starting at 2.  
Doing this will help you to see that you are missing out a number each time you count.

## Year 2 & 3

To expand the following activities, make a duplicate set of number cards **0 to 9**.

A printable number card template is available at [Dig1t.com/game-resources](http://Dig1t.com/game-resources).

5. Using one or both sets of number cards **0 to 9**, pick four number cards. Make two 2-digit numbers and place them in order from smallest to largest.  
Repeat this:
  - with more 2-digit numbers
  - placing them in order from largest to smallest
6. Using one or both sets of number cards **0 to 9**, pick six number cards. Make three 2-digit numbers and put them in order from smallest to largest Repeat this:
  - for more 2-digit numbers
  - placing them in order from largest to smallest
  - using 8 number cards to make four 2-digit numbers.



# Ordering Numbers



To expand the following activities, make a duplicate set of number cards **0 to 9**.  
A printable number card template is available at [Dig1t.com/game-resources](http://Dig1t.com/game-resources).

## Year 2, 3 & 4

7. Using one or both sets of number cards **0 to 9**, pick six number cards.  
Make two 3-digit numbers and place them in order from smallest to largest. Repeat this:
  - with more 3-digit numbers
  - placing them in order from largest to smallest
  - using 9 number cards to make three 3-digit numbers

## Year 3, 4 & 5

8. Using one or both sets of number cards **0 to 9**, pick eight number cards.  
Make two 4-digit numbers and place them in order from smallest to largest. Repeat this:
  - with more 4-digit numbers
  - placing them in order from largest to smallest
  - using 12 number cards to make three 4-digit numbers

## Year 4, 5 & 6

9. Using one or both sets of number cards **0 to 9**, pick ten number cards.  
Make two 5-digit numbers and place them in order from smallest to largest. Repeat this:
  - with more 5-digit numbers
  - placing them in order from largest to smallest
  - using 15 number cards to make three 5-digit numbers
  - using 12 number cards to make two 6-digit numbers

10. Order the following decimals in ascending order:

0.4      0.04    0.14

Order the following decimals in descending order:

1.8      1.08    0.9    1.18

Choose your own decimals to write in order from smallest to largest or largest to smallest.  
Try using your number cards and make some decimal point cards to make your own decimals to arrange in descending or ascending order.

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## Reception & Year 1

1. Split three counters into 2 groups (note, one group can contain no counters). Are there other ways you can split them? Talk about the different ways you can make 3 with 3 counters.
2. Use four counters and talk about the different ways you can make 4 with them.
3. Use five counters to talk about the different ways you can make 5 with them.

## Year 1, 2 & 3

4. Use number cards **0 to 3** to practise the number bonds to 3:  
Ask an adult to turn over one card at a time while you call out the number needed to make 3.  
Keep practising until you can do this without using your fingers or counters.
5. Use the number cards **0 to 4** to practise the number bonds to 4.  
Ask an adult to turn over one card at a time while you call out the number needed to make 4.  
Keep practising until you can do this without using your fingers or counters.
6. Use the number cards **0 to 5** to practise the number bonds to 5.  
Ask an adult to turn over one card at a time while you call out the number needed to make 5.  
Keep practising until you can do this without using your fingers or counters.
7. Practise:  
Number bonds to 3 with number cards 0 to 3  
Number bonds to 4 with number cards 0 to 4  
Number bonds to 5 with number cards 0 to 5  
...so that you are fluent with them all.
8. Continue with these number bond activities for number bonds to 6, 7, 8.... 19, 20.  
Time yourself to see how quickly you can go through the cards for each series of number bonds.  
Practise regularly to try and improve your time.  
Make sure you are fluent with a mixture of the number bonds before moving on to the next number bond.

## Year 2, 3, 4, 5 & 6

9. Make number cards of your own for numbers greater than 20 and practise number bonds to numbers over 20 in the same way as above.
10. Pick a number larger than 20 and ask an adult to test you on its number bonds –ask them to call out a number then you complete the number bond.

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## Reception, Year 1 & 2

1. Group different amounts of counters together and (using the counters if it helps) work out:
  - the number that is **1 more** than each group,
  - the number that is **1 less** than each group,
  - the number that is **2 more**, and **2 less** than each group,
  - the number that is **3 more** and **3 less** and so on.
2. Repeat activity 1 using words like “add” and “take away”.

## Year 1 & 2

3. Roll a die and work out the number that is 1 more than the number you rolled and then two more than the number you rolled, then three more etc.

## Year 1, 2 & 3

4. Roll two dice and add the numbers you roll together.  
Keep practising until you can do it without counting the total number of dots.
5. Use a selection of cards between 0 and 20 and ask an adult to turn one number card over at a time. You then have to call out the number that is 1 more than the number on the card.  
Repeat this with different calculations – examples are:
  - 1 less than the number on the card;
  - 2 more, and 2 less than the number on the card;
  - 3 more and 3 less and so on (according to your ability level).Keep building on this, by asking a mixture of 1, 2, or 3 more or less than the number on the card.
6. Repeat activity 4 but use words such as “add”, “take away”, “minus”, “plus” instead of “more than” and “less than”.  
What other words can you use that mean add and take away?
7. Using number cards **0 to 4**, pick any two cards and then either:
  1. add them together, or
  2. work out the difference between them by taking the smaller number away from the larger number.Build on this by using number cards 0 to 5, 0 to 6 and so on.
8. Practise using the symbols for add (+), subtract (-) and equals (=):  
Write each symbol onto 3 small pieces of paper or card so that you can create number sentences using the symbols and your counters.  
For example: 3 counters + 2 counters = 5 counters.  
Then make number sentences using the number cards instead of the counters.
9. Ask an adult to create missing number sentences using counters and your symbol cards.  
Two examples are:
  1. \_\_\_ + 2 counters = 4 counters.
  2. 5 counters – \_\_\_ = 3 counters.Fill in the missing space using the correct number of counters.  
Then use the number cards with your symbol cards to make missing number sentences.

# Addition & Subtraction



## Year 2, 3, & 4

10. Pick two number cards from the number cards **0 to 9**.  
Make a 2-digit number with them and add 10 to your 2-digit number.  
Repeat:
  - with more 2-digit numbers
  - subtracting 10 from your 2-digit numbers
11. Pick two number cards from the number cards **0 to 9**.  
Make a 2-digit number with them and add 20 to your 2-digit number.  
Make more 2-digit numbers, add 20 to them and subtract 20 from any that are over 20.
12. Repeat activity 11 but this time add 30, 40.....80 and 90 to the numbers you make.
13. Write down any 2-digit number.  
Then roll a die and add the number you roll to the 2-digit number you wrote down.  
Repeat this so that you can practise adding all the numbers on the die (1 to 6) to your 2-digit number.  
Repeat this with different 2-digit numbers.
14. Write down a 2-digit number.  
Using number cards **0 to 9**, ask an adult to turn over one card at a time and add the numbers they turn over to the 2-digit number you wrote down.  
Repeat this with other 2-digit numbers.
15. Pick four number cards from the number cards **0 to 9** and make two 2-digit numbers.  
Add these numbers together – use a pencil and paper if you need to.  
Then talk about the method you used.  
The aim of this exercise is to be able to add 2-digit numbers together in your head.
16. Using the number cards **0 to 9**, pick three number cards and add the numbers together.  
Now add the same numbers together but in a different order – what do you notice?
17. Make symbol cards for (+), (-), (=) and ask an adult to create number sentences with a missing number using the symbols and number cards 0 to 20 for you to solve.  
For example:  $5+3+ \_ =10$     $10- \_ =4$

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## Reception, Year 1 & 2

1. Split an even number of counters into 2 equal groups by sight only, not by counting. Then count them to check how accurate you are.

## Year 1 & 2

2. Lay all the number cards out in front of you and find all the **even** numbers.
3. Lay all the number cards out in front of you and find all the **odd** numbers.

## Year 2 & 3

4. Visualise your 2-times table  
by arranging 4 counters into 2 groups of 2 counters and talking about the groups and how many counters there are in total.  
Repeat this with 6 counters (3 groups of 2 counters), then 8, 10, 12 counters etc.  
Make the connection between the phrases: two groups of 2, 2 lots of 2, and 2 times 2.  
Do this again for 3 groups of 2, 4 groups of 2 and so on.  
Can you see how many counters there are in 4 groups of 2 without counting them out?  
What about 8 groups of 2?  
Keep going using more groups of 2.
5. Use dice to practise your 2 times table by rolling a die and multiplying the number you roll by 2.  
Repeat this to practise multiplying: 1, 2, 3, 4, 5, and 6, by 2.  
To practise up to  $12 \times 2$ , use two dice and work out the sum of the two numbers you roll before multiplying the answer by 2.
6. Use number cards **0 to 12** to practise your 2 times table.  
Shuffle the cards and ask an adult to turn over one card at a time.  
Multiply the number they turn over by 2 and call out the answer.  
Time yourself completing the cards and see if you can improve on your time with more practice.
7. Share 4 counters between 2 people, how many do they get each?  
Share 6 counters between 2 people, then 8, 10, and 12 counters.  
Use the word "divide" as well as "share" when you are doing this.  
Notice how your 2 times table can help you to share/divide between 2.
8. Use even number cards from 2 to 20 to practise dividing by 2.  
Ask an adult to turn over one card at a time, you then have to divide the number by 2 and call out the answer.  
You could make new number cards for 22 and 24 to use in this game.
9. Arrange 10 counters into two groups of 5 and talk about the groups and how many counters there are in total.  
Do the same for 15, 20, 25, 30 and 40 counters.  
Talk about your groups and link them to the 5 times table.
10. Use a die to practise the 5 times table up to  $6 \times 5$ .  
Roll the die, multiply the number you roll by 5 and call out the answer.  
Then use two dice to practise up to  $12 \times 5$  – roll both dice, add them together, then multiply by 5.

11. Use number cards **0 to 12** to practise your 5 times table.  
Shuffle the number cards and ask an adult to turn over one card at a time.  
Multiply the number they turn over by 5 and call out the answer.  
Time yourself completing the cards and see if you can improve on your time with more practice.
12. Arrange 10 counters into five equal groups.  
How many counters are there in each group?  
Repeat with 15, 20, 25, and 30 counters.  
Use the words "divide" and "share" when you are doing this.  
Notice how your 5 times table helps you to share/divide between 5.
13. Use number cards that are multiples of 5 (5, 10, 15, 20) and lay them face down in a line.  
Ask an adult to turn over one card at a time and divide each number by 5.  
You could make number cards for 25, 30, 35 etc. to use in this game.
14. Repeat activities 10 and 11 for the 10 times table. Try visualising your 10 times table with counters before using the dice and number cards to practise.  
Make sure you still practise your 5 and 2 times tables.

## Year 3, 4, 5 & 6

15. Use a die to practise the 3 times table up to  $6 \times 3$ .  
Roll the die, multiply the number you roll by 3 and call out the answer.  
Then use two dice to practise up to  $12 \times 3$  - roll both dice, add them together and then multiply by 3. Repeat this for all the other times tables.
16. Use number cards **0 to 12** to practise your 3 times table.  
Shuffle the cards and ask an adult to turn over one card at a time.  
Multiply the number they turn over by 3 and call out the answer.  
Time yourself completing the cards and see if you can improve on your time with more practice. Repeat this for all the other times tables.