

Number Knowledge Games. Stage 5

Approximately Years 3 - 5



To support your child to have fun playing with numbers.

Tens Facts

Learning Focus:

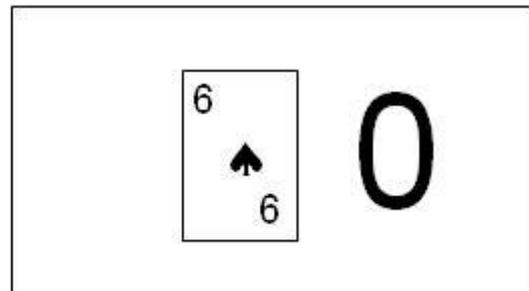
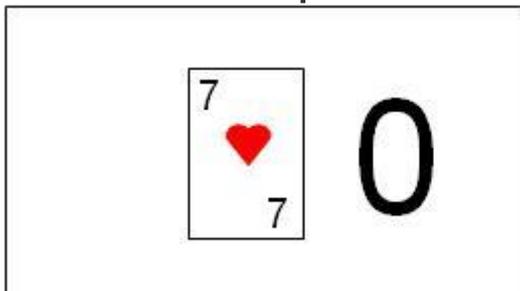
Know addition facts with multiples of ten. For example, $70 + 70 = 140$.

What you need:

- A set of cards with the face cards and number ten in each suit removed.
- 2 pieces of paper, with a "0" drawn on the right hand side.

What to do:

- Shuffle the cards and place them in a pile face down.
- Take 2 cards and place them on the left hand side of each piece of paper. This forms 2 numbers that are multiples of ten. For example 70 and 60 are shown as:



- Ask your child to add the 2 numbers together.
- Repeat using other cards to make other addition problems. Take turns with your child to deal out the cards and solve the problems.

What to expect your child to do:

- Use the addition facts they know to help them find the answers. For example, if they know $4 + 8 = 12$, they can use this to identify that $40 + 80 = 120$.

I Spy – Multiplication

Learning Focus:

Develop instant recall of multiplication facts.

What you need:

- A pack of cards with the picture cards removed. Ace counts as 1; 40 cards in total.

What to do:

- Deal out the cards in 10 rows of 4 or 5 rows of 8.
- Players take turns to challenge the others. For example *I spy two cards that multiply to make 30*
- Players look for 2 cards next to each other, horizontally, vertically or diagonally, that multiply to give the number specified.
- The player that finds the combination collects the 2 cards. If the combination of cards cannot be found, the player who posed the 'I Spy' question takes the two cards.
- If the player made an error and there is no such combination of cards, nobody collects any cards and the next player takes their turn.
- As cards are removed, the remaining cards are rearranged to fill in the spaces.
- The winner is the player with the most cards once all the cards have been collected.

Variations:

- A simpler version is to use fewer cards: aces, twos, threes, fours and fives. This is a total of 20 cards that can be arranged in 4 rows of 5.

I Spy – Addition

Learning Focus:

Develop instant recall of addition facts to 20.

What you need:

- A pack of cards with the picture cards removed. Ace counts as 1; 40 cards in total.

What to do:

- Deal out the cards in 10 rows of 4 or 5 rows of 8.
- Players take turns to challenge the others. For example *I spy two cards that add to 12*
- Players look for 2 cards next to each other, horizontally, vertically or diagonally, that add to the number specified.
- The player that finds the combination collects the 2 cards. If the combination of cards cannot be found, the player who posed the 'I Spy' question takes the two cards.
- If the player made an error and there is no such combination of cards, nobody collects any cards and the next player takes their turn.
- As cards are removed, the remaining cards are rearranged to fill in the spaces.
- The winner is the player with the most cards once all the cards have been collected.

What to expect your child to do:

- At first children may need to count the symbols on the cards to work out the addition facts but expect them to develop instant recall.

BAT (Before and After the Target)

Identify the number before and after numbers from 100-1000.

What you need: Pack of cards with the Queens, Kings and tens removed. The Jacks are zero, and the aces are one. Included 2 Jokers which can be used for any value.

- Pen and paper

What to do:

The dealer writes down any number from 100 -998. This is the target number. The aim of the game is to get three cards that make the number that comes just before or just after the written number.

- Players are dealt three cards each, which they hold in their hand. They look at these, but do not allow the other players to see them.
- They take turns to pick up a card, then discard the card (face-up in the discard pile) that they do not want.
- The next player can either select from the deck of cards or the discard pile.
- Players can only hold three cards in their hand at one time.
- The first player to table the three cards which make the number before or after the written number is the winner.
- Children will soon realise that it is easier if the target number contains different digits. Eg. 256 or 638 is easier to get than 333

What to expect your child to do:

- Be able to instantly identify the number that comes just before or just after numbers to 1000. Accurately read these numbers.

1, 10 & 100 Before & After

Learning Focus:

Learn the number 1, 10 or 100 before or after a hundreds number.

What you need:

Pack of cards. Ace = 1, remove the 10 and the picture cards

What to do:

Shuffle the cards and place face down between the players. Take 3 cards and together the players arrange the cards to form a hundreds number. Then deal each player 3 cards. Take turns to place a card on top of a card in the displayed number to make it 1, 10 or 100 more or less than the displayed number. Read aloud the new number and explain how it is changed. For example, if the display number is 472, the first player could place a 6 on the 7, and say “the number is now 462, it is 10 less than 472”. Players take turns building on the number. If a player can't place a card they take one from the pile. If neither player can make a move the game ends. The winner is the player with the least number of cards in their hand at the end of the game or the player who plays all their cards.

What to expect your child to do:

To correctly make a number 1, 10 or 100 less or more than the displayed number and be able to read the number aloud.

Variation

Play with 4 cards in the display number and change it by 1, 10, 100 or 1000.

Place Value Thousands

Learning Focus: Read and order 4 digit numbers.

What you need:

- A pack of cards with the picture cards removed (aces count as one).
- A sheet of paper for each player with 4 columns headed thousands, hundreds, tens, and ones. The columns need to be big enough to place a playing card in each space.

What to do:

The object of the game is to make the biggest number with 4 cards that have been randomly turned over.

- The cards are placed in a pile, face down in the middle of the table.
- Players take turns to pick one card from the top of the pack, turn it over, and place it in either the thousands, hundreds, tens or ones column. Once a card is placed onto the paper its position cannot be changed.
- Once each player has their four columns filled, players read their numbers and the player with the largest number wins.

What to expect your child to do:

- Be able to tell you what each digit within a number represents. For example, in the number 4 572, the 7 tells you how many tens are in the number and the 2 tells you how many ones are in the number.
- Be able to read 4 digit numbers accurately.

Blast 1000

Learning Focus:

Count backwards and forwards in tens from 100-1000

What you need:

- A pack of cards with the tens and picture cards removed. Ace is one.
- Pen and paper

What to do:

Each player draws a game grid like that shown over page.

- Turn over two cards at a time. All players record these numbers in one of the rows of the grid. e.g. If a 4 and a 6 were turned over, they could use these as 460 or 640. They decide where to record their number on the grid.
- The aim is for numbers to be inserted in order from the numbers greater than 100 at the bottom of the grid, to numbers less than 1000 at the top of the grid.
- Only tens numbers are used to help the child count forward and back in tens from numbers bigger than 100.
- If there is no place for a number the player has to miss their turn.
- The player who completes the grid first is the winner.
- As you play the game, discuss for each number entered:
 - *What would be ten more than that number?*
 - *What would be ten less than that number?*

Blast 1000 grid....

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Largest Number Wins

Learning Focus:

To understand the place value of digits in a number.

What you need:

- A pack of cards with picture cards and tens removed. (Ace = 1)

What to do:

- Shuffle the cards and leave them face down on the table.
- Players take turns to take a card from the top of the deck and place it in front of them in either the hundreds, tens or ones column. (e.g. In the number 367, the 3 is in the hundreds column, the 6 is in the tens column and the 7 is in the ones column.)
- Once the card has been placed it cannot be changed.
- After three rounds the player who produces the largest numbers wins. (e.g. If 6, 9, 3 had been turned over the player may have placed these as 639 or 936 or 369 etc)

What to expect your child to do:

- To know the place value of numbers. That the 3 in 367 means 300, the 6 means 60.

Variations: Choose four cards – Thousands, Hundreds, Tens and Ones columns.