Number Games to Play at Home

NB This leaflet was designed to accompany the parent's session on teaching calculations in Key Stage 1. If you would like additional explanations on how to play any of these games, please ask your child's class teacher.

Equipment
You will need
Two dice, a set of dominoes, writing implements, cardboard (can be from a packet), a mobile phone, objects found in nearly every home.
A set of cards numbered 0 – 20 and an extra 5 and 10 (you can make these).

Ongoing practice.
Nearly everyone starts calculations by using their fingers.

Children are used to putting up  for 4 fingers. However they often get confused.

You may ask them to make 6. They may do 

or this using the previous 4 fingers 

FOUNDATION STAGE

Reciting numbers – backwards and forwards

- Chant as you walk, run, drive.
- Walk backwards saying numbers backwards from 10.
- Clap, jump or bounce as you recite numbers in order
- Practice number rhymes – 1, 2, 3, 4 ,5 once I caught a fish alive
  5 little speckled frogs lived on a specked log
- Count objects
- Count the stairs as you go up and count backwards as you go down.
- Count all child's cars, cuddly toys, pencils etc.
- Count out knives, forks or places as you clear or set the table.

Finding Numbers

- Look for all the numbers 1 – 10 as you do the weekly shop.
- Read numbers on number plates.

- Make the numbers in play dough, draw them in sand, use water and 'paint' them on the path.

KEY STAGE 1

1. **Count in 1s and 10s**
   Find the calculator on your phone. Set it to add 1 or 10. Ask child to predict the Answer before they can press equals.
   (This can also be used for counting in any multiples or by using the subtract function to count backwards.)

2. **Finding doubles**
   When child is not looking sort out dominoes so you have all the doubles and 7 others. Place them face down. Then play with your child turning over the dominoes. If you get a double give the total and keep the domino.

3. **Pairs of numbers that make 10**
   a. Make some cup cakes; get two different types of ready made decorations. Child decorates cakes with bonds to 10 using some of each e.g. 3 of one sort and 7 of another. When they come to eat them they need to say the pair that makes 10.

   b. Cut out 16 cards. Write the numbers 0 – 10 plus an extra 5. Place them face down and child turns over 2 of them. If they total 10 they keep them.
   Extension: Make cards in 10s e.g. 10, 20 etc. This time they are looking for pairs of numbers that make 100.

4. **Partition numbers to 10**
   a. Make your own bead string. Either use bought beads or for more fun 2 types of pasta with holes in e.g. penne or macaroni. Either colour them or leave them plain. Thread them onto to a length of string in tens alternating the colour or type. You can also use them to make numbers.

   b. Make a swap game. Have some paper and a 10p coin and 10 x 1p coins. On the paper draw round the 10p coin. Underneath draw round the 10 x 1p coins. Child throws a dice and picks up that many 1ps and places them on the paper. When they have a 1p in each drawing they swap them for a 10p.
   Extension: draw round a £1 coin and play the game swapping 10 x 10ps for a £1.

5. **Adding two two digit numbers e.g. 34 + 51**
   Make your own place value apparatus by using either wrapping paper with pictures on, downloading images from the internet e.g. footballs, stars (large and small) or dried beans which can be swapped for a can of baked beans.
   Each large football is worth 10. Each small football is worth 1. Practice getting out given amounts and adding them together.

6. **Begin to use the – and = signs**
   You will need strips of card and pegs. Write a sum on each card. Ask child to put a set number of pegs on the card (put marks on the card if it helps). Then take a given number of pegs away.

7. **Find a number that is 1 less than another**
   Make a customized number strip. Use pictures either cut from magazines or pictures downloaded from the internet and glued onto the strip. Fold this over to make 1 less.
   Extension: Make a strip marked in 10s instead and fold over for 10 less.

8. **Know by heart subtraction facts for numbers up to 10 (20)**
   a. Draw round child's hands on stiff card. Cut out so they remain joined at the base. Child folds down say 3 fingers and says how many are still up.

   b. Collect 10 nice stones. Child shuts eyes. Listens to you drop the stones into a saucepan 1 at a time and counting then tells you how many you have left in your hand. Opens eyes and checks.
   Extension: each stone is worth 10.

9. **Find the difference**
   a. You will need: healthy option raisins, unhealthy but popular chocolate sprinkles, cards numbered 1 – 10
   You and your child each take a card. Place them on a clean surface. Make matching rows of raisins to tally with each of your numbers. What is the difference between the 2 numbers? If child can tell you then he/she can eat the difference.

   b. Get about 20 x 1p coins. Each of you grab a handful – if you have large hands child can use both hands. Lay out your amounts side by side. Who has the most? What is the difference? Record the difference each time – less than 3 you score, more than 3 child scores.
   N.B. it takes a long time to understand this concept.

PLUS – ideas for a variety of concepts. Make a simple unmarked track. Child has to:

- Turn over a sum – say the answer correctly to move 1 space. If he/she is wrong you can go to the correct number.
- Throw a 2 dice and either + or _ the numbers to give them an amount to move on the track.
- Turn over a domino. If it is a double you can move either the total or the number that is doubled.
- Cards numbered 1 – 10. Turn over 2 numbers, work out the difference and move that number on the track (use pasta, beans, and pennies to work it out).
  Extensions:
  - Make a set of 10 cards say 1, 11, 21, 31, ……91. Turn over 2 cards. Child correctly says the difference and moves on 2 spaces.
  - Doctor 1 or 2 of your dice. Using sticky spots or plain labels renumber them with numbers between 11 and 20. Throw die and either find the differences or totals and move on the appropriate number of spaces.

Remember….

Be positive about Maths

Make Maths fun

Give lots of praise and encouragement

Talk to your child and ask them to explain their thinking

Numbers are all around us all the time. Notice them and talk about them