

## Mathematics in the EYFS - Notes from meeting

Mathematics is one of the specific areas of learning. It involves providing opportunities to practise and improve children's skills in:

- Counting numbers
- Calculating simple addition and subtraction problems
- Describing shapes, space and measure

### Two Early Learning Goals:

#### 1. Number

- Count reliably with numbers from 1-20
- Place them in order
- Say which number is one more or one less than a given number
- Using quantities and objects, add and subtract two single-digit numbers and count on or back to find the answer
- Solve problems, including doubling, halving and sharing

#### 2. Shape, space and measures

- Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects
- Solve problems
- They recognise, create and describe patterns
- They explore characteristics of everyday objects and shapes and use mathematical language to describe them

#### What do we do in school?

- We make mathematics fun
- We call children 'mathematicians'
- We make activities as practical and interactive as possible
- We relate mathematics to real life situations
- We encourage children to solve problems
- We encourage children to explain their workings
- We explain that we can learn from our mistakes

#### Skills in early addition

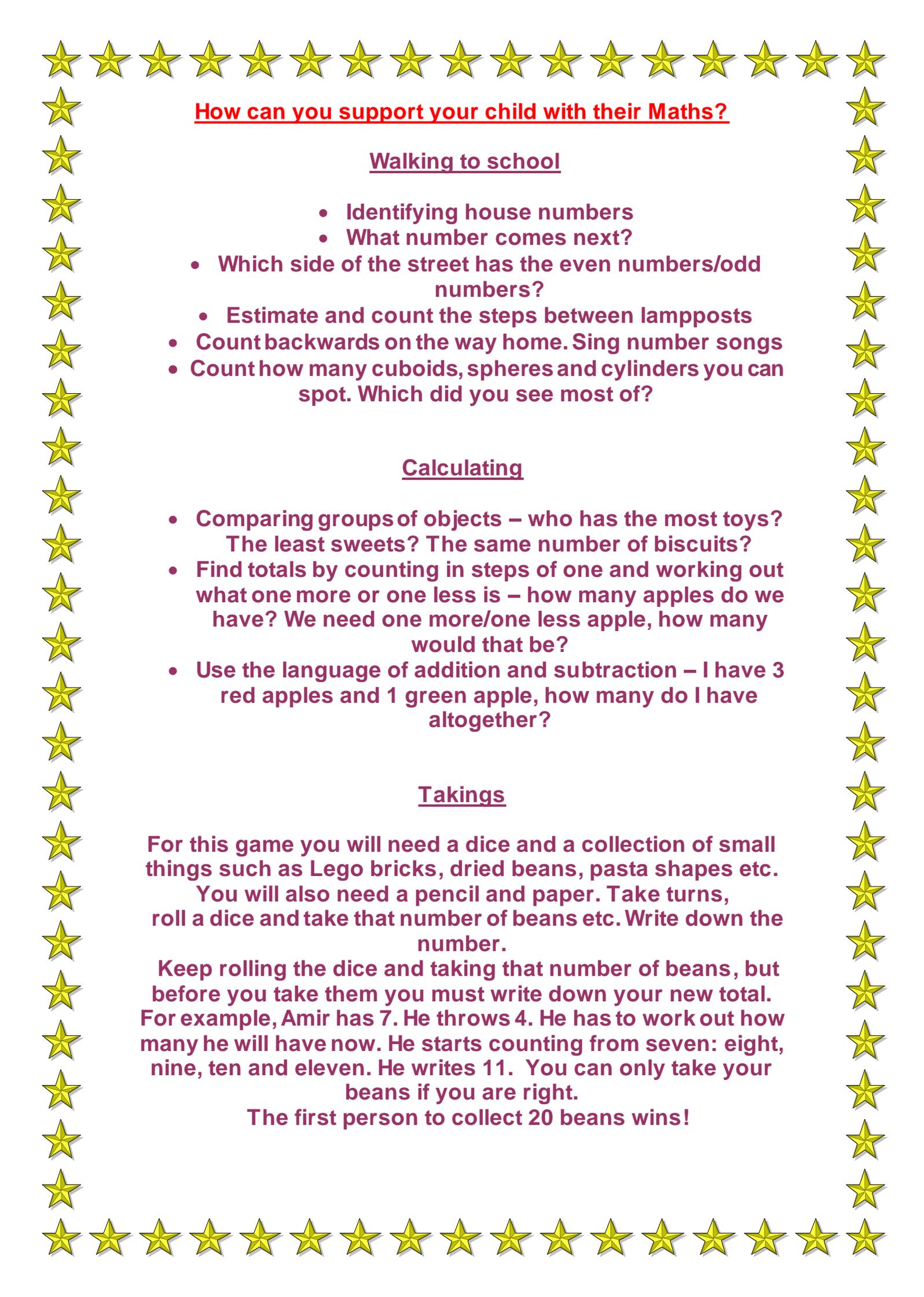
- Counting all – a child doing  $2 + 3$  counts out two bricks and then three bricks and then finds the total by counting all the bricks
- Counting on from the first number – a child finding  $3 + 5$  counts on from the first number 'four, five, six, seven, eight'
- Counting on from the larger number – a child chooses the larger number, even when it is not the first number, and counts on from there

#### Skills in early subtraction

- Counting out – a child finding  $9 - 3$  holds up nine fingers and folds down three
- Counting back from – a child finding  $9 - 3$  counts back three number from 9: 'eight, seven, six'
- Counting back to – a child doing  $11 - 7$  counts back from the first number to the second, keeping a tally using their fingers to count how many numbers have been said, 'ten, nine, eight, seven', holding up four fingers

#### Strategies for memorising

- Kinaesthetic - this involves memorising through movement, learning by matching facts to specific ways of moving, such as finger counting or action sequences
- Visual - some children have a good visual memory, and can 'see' facts on the page/board
- Aural - some children remember things by hearing them repeated. Chanting the sequence of numbers, matching facts to rhymes, songs or music
- Written – writing something can help the facts travel from the 'pen to the brain!'. Children can see how the facts connect together when they are presented in written form,  $3 + 2 = 5$ ,  $2 + 3 = 5$
- Pattern - some children find it easier to recall facts when they understand the structure of patterns in which they are embedded, e.g. dots on dominoes or dice



## How can you support your child with their Maths?

### Walking to school

- Identifying house numbers
- What number comes next?
- Which side of the street has the even numbers/odd numbers?
  - Estimate and count the steps between lampposts
- Count backwards on the way home. Sing number songs
- Count how many cuboids, spheres and cylinders you can spot. Which did you see most of?

### Calculating

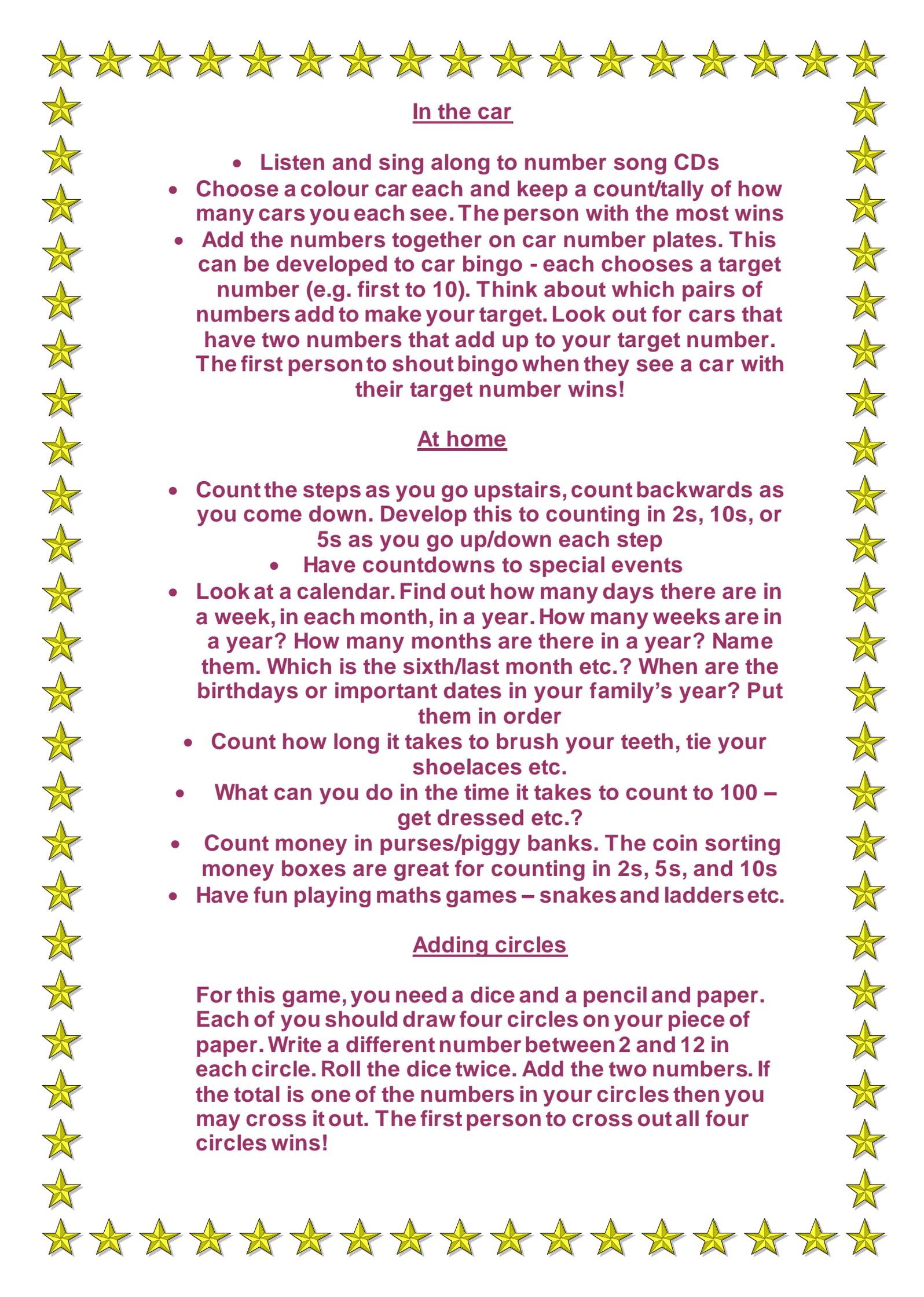
- Comparing groups of objects – who has the most toys? The least sweets? The same number of biscuits?
- Find totals by counting in steps of one and working out what one more or one less is – how many apples do we have? We need one more/one less apple, how many would that be?
- Use the language of addition and subtraction – I have 3 red apples and 1 green apple, how many do I have altogether?

### Takings

For this game you will need a dice and a collection of small things such as Lego bricks, dried beans, pasta shapes etc. You will also need a pencil and paper. Take turns, roll a dice and take that number of beans etc. Write down the number.

Keep rolling the dice and taking that number of beans, but before you take them you must write down your new total. For example, Amir has 7. He throws 4. He has to work out how many he will have now. He starts counting from seven: eight, nine, ten and eleven. He writes 11. You can only take your beans if you are right.

The first person to collect 20 beans wins!



### In the car

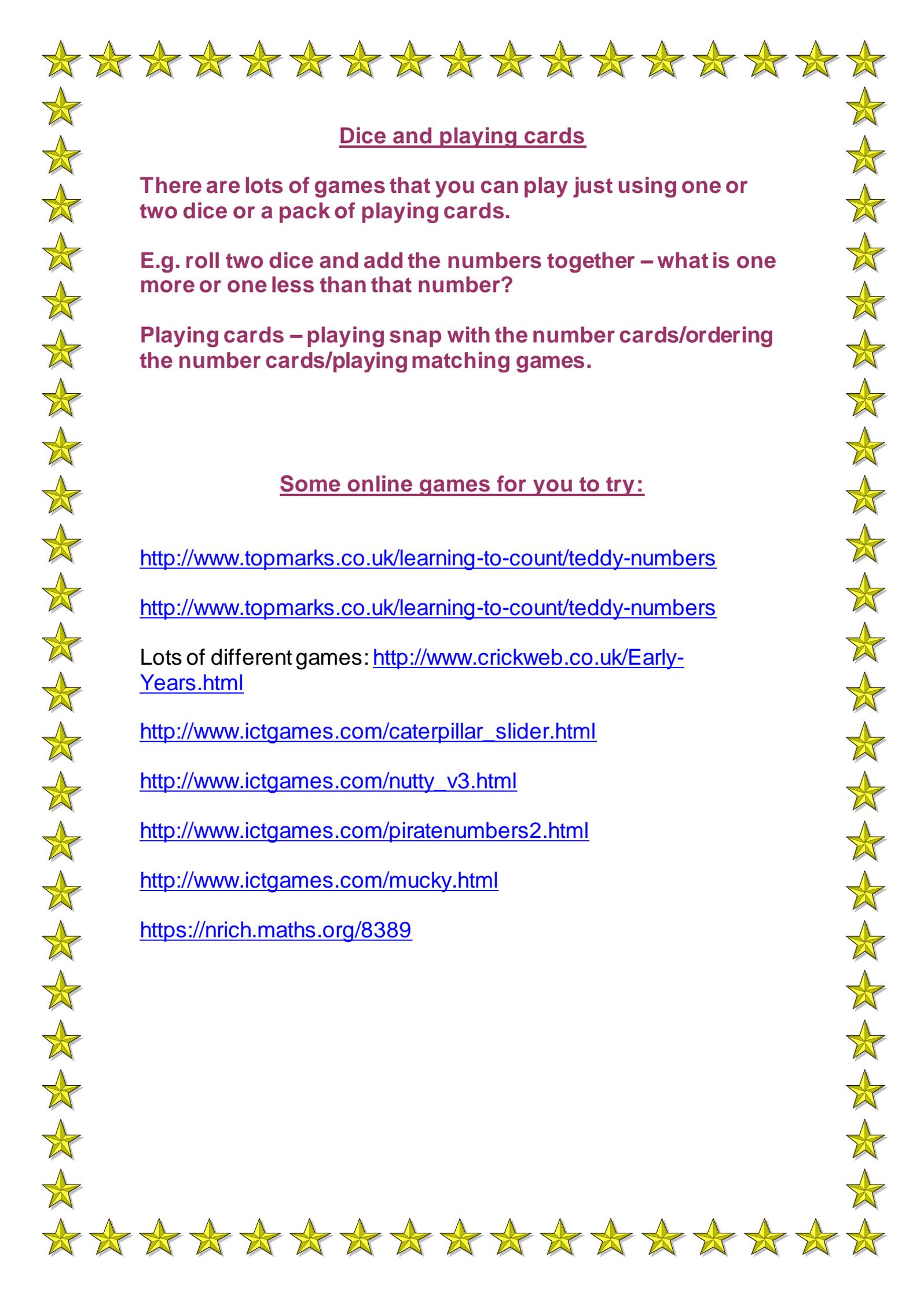
- Listen and sing along to number song CDs
- Choose a colour car each and keep a count/tally of how many cars you each see. The person with the most wins
- Add the numbers together on car number plates. This can be developed to car bingo - each chooses a target number (e.g. first to 10). Think about which pairs of numbers add to make your target. Look out for cars that have two numbers that add up to your target number. The first person to shout bingo when they see a car with their target number wins!

### At home

- Count the steps as you go upstairs, count backwards as you come down. Develop this to counting in 2s, 10s, or 5s as you go up/down each step
  - Have countdowns to special events
- Look at a calendar. Find out how many days there are in a week, in each month, in a year. How many weeks are in a year? How many months are there in a year? Name them. Which is the sixth/last month etc.? When are the birthdays or important dates in your family's year? Put them in order
- Count how long it takes to brush your teeth, tie your shoelaces etc.
- What can you do in the time it takes to count to 100 – get dressed etc.?
- Count money in purses/piggy banks. The coin sorting money boxes are great for counting in 2s, 5s, and 10s
- Have fun playing maths games – snakes and ladders etc.

### Adding circles

For this game, you need a dice and a pencil and paper. Each of you should draw four circles on your piece of paper. Write a different number between 2 and 12 in each circle. Roll the dice twice. Add the two numbers. If the total is one of the numbers in your circles then you may cross it out. The first person to cross out all four circles wins!



## Dice and playing cards

There are lots of games that you can play just using one or two dice or a pack of playing cards.

E.g. roll two dice and add the numbers together – what is one more or one less than that number?

Playing cards – playing snap with the number cards/ordering the number cards/playing matching games.

## Some online games for you to try:

<http://www.topmarks.co.uk/learning-to-count/teddy-numbers>

<http://www.topmarks.co.uk/learning-to-count/teddy-numbers>

Lots of different games: <http://www.crickweb.co.uk/Early-Years.html>

[http://www.ictgames.com/caterpillar\\_slider.html](http://www.ictgames.com/caterpillar_slider.html)

[http://www.ictgames.com/nutty\\_v3.html](http://www.ictgames.com/nutty_v3.html)

<http://www.ictgames.com/piratenumbers2.html>

<http://www.ictgames.com/mucky.html>

<https://nrich.maths.org/8389>