



# MATHS

Week beginning 18<sup>th</sup> May 2020

# INTRODUCTION

This week, we have created a maths presentation to help you to teach some important skills at home. At the end of the presentation, you can refer to the Early Years Foundation Stage curriculum, for guidance on the expectation for pupils in Reception.

Each activity should take no longer than 15 minutes. You could split the time as follows...



Starter Activity



Main Activity



...To Finish

# Warm Up!

We do these at the start of every maths session  
Complete 1 or 2 per day

## Count to 20 rap

<https://www.youtube.com/watch?v=MVzXKfr6e8>

## Counting back from 20

[https://www.youtube.com/watch?v=srPkt\\_d4k\\_O8](https://www.youtube.com/watch?v=srPkt_d4k_O8)

## Repeating patterns

<https://www.youtube.com/watch?v=BQ9q4U2P3ig&list=PLkOOSRck-w9CD6fnkd8NR8O4PeCXPSztT>

## Doubling song

[https://www.youtube.com/watch?v=At0q\\_uRa90rs](https://www.youtube.com/watch?v=At0q_uRa90rs)

## 2D shape song

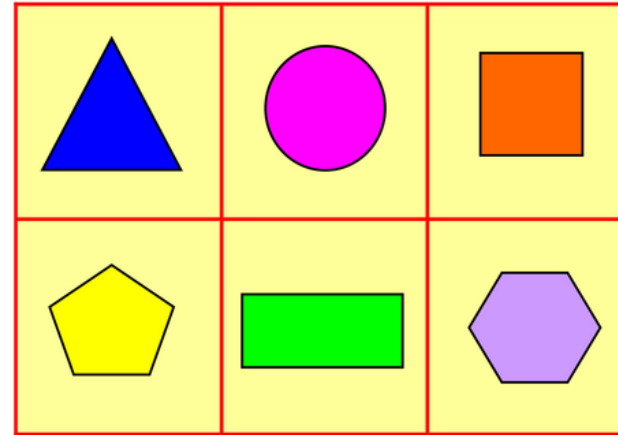
<https://www.youtube.com/watch?v=WTeqUeif3D0>

## 3D shape song

<https://www.youtube.com/watch?v=2cg-Uc556-Q>

## Guess my shape

Describe a shape to your child, talking about the number of sides and corners. Can they find the correct shape? Can they name the shape?



## Halve it!

Pick a number card (use even numbers), or have your adult shout out a number.  
Can you halve the number as quick as a flash?

## Roll and add

Roll two dice, or choose two number cards (simply write numbers 1-6 twice, on separate pieces of paper). What number have the dice landed on? Can you add the numbers together, as quick as a flash?

## Counting in 2's

Can you use the number line below to practice counting in 2's? Can you count in 2's in a loud voice? In a quiet voice? In a singing voice? Can you think of any other ways to count?



# THIS WEEK WE ARE LEARNING ABOUT...



What do you already know about subtraction?

What does subtraction mean?

## subtraction

Before we start this learning, have a think about these questions...

Do you know the symbol for subtraction?

Have you ever done any subtraction before?

After discussing the questions:  
Explain that 'subtraction' means the same as take away / less.

Key vocabulary:  
Subtraction  
Subtract  
Take away / minus  
Less  
Equals  
Smaller  
Number sentence  
Count



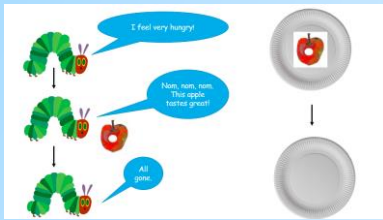
Here is a Numicon number line, that your child may find useful in their learning. It can be used to support them in counting backwards and solving different subtraction problems, or number sentences.



Today we will be learning and exploring how to subtract/take away 1.  
Key vocabulary: subtract, subtraction, take away, less, smaller, equals, count.

## 1. Introduction

Begin by showing your child the pictures on the next page and encourage them to discuss what they notice. What can you see? What has happened to the number of apples? Is there more apples, or less apples now? Repeat for the second picture, on the following slide.



Explain that the hungry caterpillar, who has been eating this fruit, has been taking (eating) one away. This is the same as subtraction. When we subtract, we are taking something away.

## 2. Activity - Take away 1

Before you begin this activity you will need to place a varying number of items into different cups or containers. We suggest that you start by placing between 1-10 items in the cup and move onto 10-20 items, as your child becomes more confident. The activity works great with small foods, or foods such as apples, which can be cut into lots of small pieces. However, you could also use objects/small toys from around the home.



Today, you are going to be like the hungry caterpillar and take away (eat) 1 piece of food, or item, from each cup.

**What do you think this means, you need to do?**

1. Choose your first cup and take the objects out. Carefully count how many objects are inside. \*Remember to put the objects in a line, touch them slowly and say one number name, for each object\*.
2. Take one object away.
3. Count how many objects you have left.
4. Say the number sentence, for your subtraction.



1, 2,  
3

Take 1 away.  
Count: 1, 2.  
3 take away 1 equals 2.



For an extra challenge: You might like to become a VERY hungry caterpillar. This caterpillar takes away (eats) 2, or 3 objects from each cup. Can you take this many items away and carefully count how many are left? Remember to say the number sentence.

## 3. To finish...

Tell your grown-up 3 things that you have learnt today, about subtraction. Here are some question prompts to help:

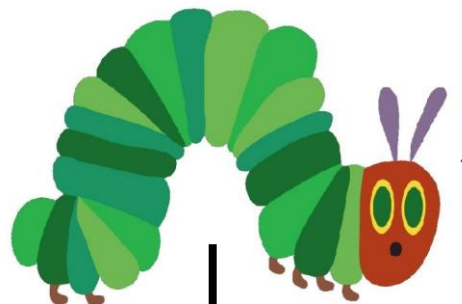
-What does subtraction mean? When you are subtracting, what do you need to remember? When you subtract, does the number you started with get bigger, or smaller?

**Watch** and join in with the actions to the song 5 little monkey's :

<https://www.youtube.com/watch?v=b0NHrFNZWh0>



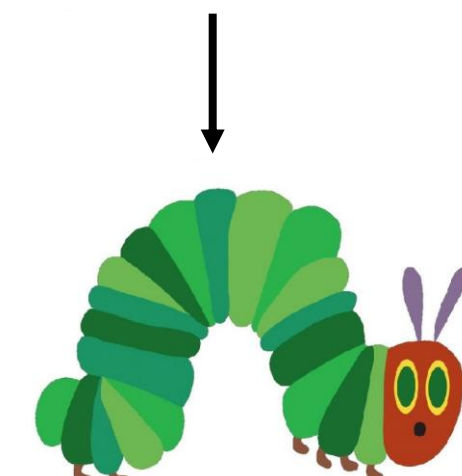
Adult - pause the video each time a monkey falls off the bed. Ask your child: How many fell off? How many are left of the bed? How do you know? Can you count to check?



I feel very hungry. I am going to eat 1 apple.



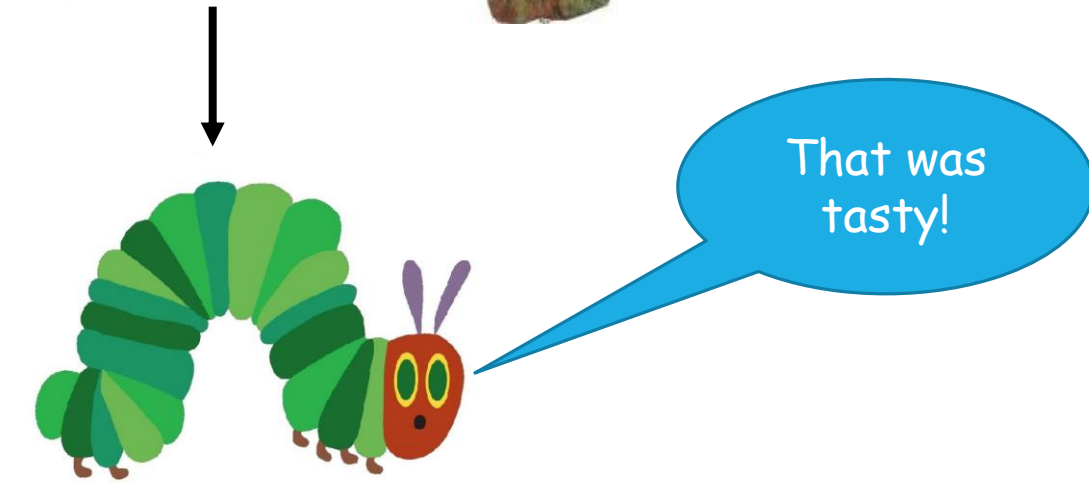
Nom, nom, nom. This apple tastes great!



All gone.









Today we will be learning how to subtract different amounts, using objects.  
Key vocabulary: subtract, subtraction, take away, less, smaller, equals, count.

## 1. Introduction

Before we start today's new learning, ask your child the following questions:

- What can you remember about subtraction? What does subtraction mean? When you subtract/take away, what do you need to do?

After this initial discussion, watch the following subtraction clip:

<https://www.youtube.com/watch?v=GdXClek-05I>



One of the pluffballs is finding subtraction a little bit tricky. Can you tell your adult what they are doing wrong? Can you find 3 objects, or toys and then take 1 away. How many are left? What would happen if you took 2 objects away?

## 2. Activity - Take away towers

For this activity, you will need: number cards 6-10, or to 20 if you would like a challenge (you can make these by writing each number individually, on a piece of paper), a dice (interactive dice can be found online) and blocks/cubes, or something similar, that can be stacked and used to make a tower.



1. First, you will need to choose a number card. Which number is it? Can you build a tower, using that many blocks? Encourage your child to count the blocks carefully and slowly. Once they have built the tower ask your child: How can you check that you have the right number of blocks?
2. Next, roll the dice and look at the number in lands on. Which number is it? Can you take that many blocks off of your tower? Encourage your child to remove the blocks carefully and slowly, counting each one. Ask them to check, that they have taken away the right number, by counting.
3. Finally, we need to check how many blocks are left on the tower. How can you check? (Count) Once your child has got to their answer, encourage them to verbalise the subtraction. For example: 9 take away 5 equals 4. They may need prompting to start with, using questions such as: How many did you start with? How many did you take away? How many did you have left, at the end?

For an extra challenge: Model and show your child, how to write a number sentence, to match their tower subtraction. For example: If they built a tower 4 blocks tall and took 2 away, they would write:  $4 - 2 = 2$ . Can you write a number sentence for each of your take away towers?

## 3. To finish...

Tell your grown-up something new, that you have learnt today, about subtraction.

I have one final challenge for you, it is called **tallest tower**.

For this challenge, you will need to build two towers following my instructions. Before you start building the towers, can you **predict** which one you think will be tallest (have the most blocks). Why do you think that?

### Tower 1:

1. Can you make a tower that is 7 blocks tall.
2. Can you take away 1 block?
3. How many blocks are left?

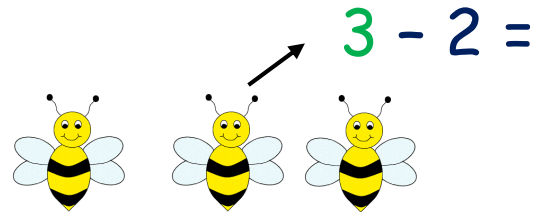
### Tower 2:

1. Can you make a tower that is 10 blocks tall.
2. Can you take away 5 blocks?
3. How many blocks are left?

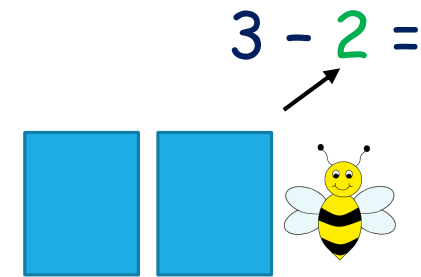
# Steps to success - solving written number sentences.

These steps to success will be mentioned throughout the next few days, as child begins to explore written number sentences. Please encourage your child to follow these steps when they are exploring the activities.

1. Read the number sentence and look at the first number. Carefully count out that many objects. (Remember to put the objects in a line, touch them slowly and say one number name at a time.)



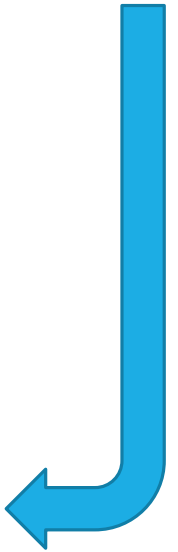
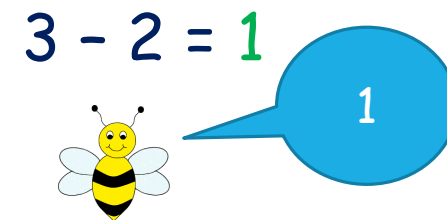
2. Look at the second number. Carefully count and take that many objects away.



4. Say the number sentence, out loud.  
"3 take away 2 equals 1"



3. Carefully count how many objects are left.  
This number, is your answer.



Today we will be learning how to solve subtraction number sentences. We will focus on using objects, to help us solve them.

Key vocabulary: subtract, subtraction, take away, less, smaller, equals, count, number sentence.

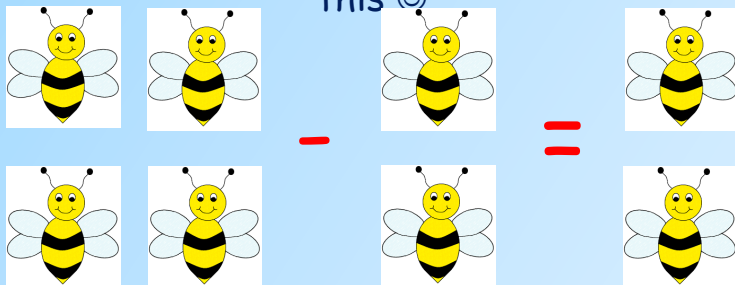
## 1. Introduction

Before we start today's new learning, ask your child the following questions:

- What can you remember about subtraction? What does subtraction mean? When you subtract/take away, what do you need to do?

After your initial discussion, ask your child to look at the subtraction below. Ask them to discuss what they notice.

What can they tell you about the pictures? What can they tell you about the numbers? Can they read the written number sentence? Can they point to the sign for take away and equals? Discuss and model how to solve this 😊


$$4 - 2 = 2$$

## 2. Activity - Subtraction board game

For this activity, you will need some counters (you could make your own, by cutting out shapes from some paper), a dice (interactive dice can be found online) and lots of objects that can be used to solve the subtraction number sentences.

Before you begin, it will be useful to explore some written number sentences together and discuss how to work them out. Use the steps to success that were outlined on the previous slide, to model/explore solving the following number sentences:



sentences:

$$3 - 2 = 1$$

$$6 - 4 = 2$$

13-5=	9-4=	20-8=	10-5=	Finish
11	22	22	26	29
18-12=	9-3=	10-7=	13-1=	20-10=
18	18	18	17	10
4-3=	14-7=	10-3=	7-5=	5-1=
11-10=	13	13	16	16
11-6=	17-5=	15-11=	2-2=	12-10=
10	12	4	0	2
Start	17-9=	6-2=	20-4=	9-8=
1	8	4	16	1

Once you have explored these, have a look at the board games on the next two next slides. Choose **version 1**, to practice subtraction with numbers to 10. Choose **version 2**, to practice with numbers to 20. Take turns to move around the board and solve the subtraction number sentences. Remember to use objects to help you and follow the steps to success.

For an extra challenge: Could you create your own subtraction game and write your own number sentences?

## 3. To finish...

Tell your grown-up **3 things** that you have learnt today, about subtraction. Here are some question prompts to help:

-What does subtraction mean? When you are subtracting, what do you need to remember? When you subtract, does the number you started with get bigger, or smaller?

I have one final game for you, which explores your subtraction learning some more. It is called 'Sten's Party' and can be found online, at education city.

[https://go.educationcity.com/content\\_select/index/2/2/1/1#/c=15](https://go.educationcity.com/content_select/index/2/2/1/1#/c=15)

53





# Version 1

twinkl

## Subtraction to 10 School Bus Ride

10-1, 6-5, 7-6, 7-5, 8-2, 6-2, 10-4, 5-5, 7-6, 7-4, 8-3, 9-3, 9-8, 10-8, 2-1, 4-2, 7-5, 4-3, 8-1, 10-3, 9-6, 9-4, 5-4, 9-4, 2-1, 10-9, 8-4, 10-6, 5-2, 10-1

START

Finish!

The worksheet features a winding path on a green background. The path is divided into sections, each containing a subtraction problem. The problems are: 10-1, 6-5, 7-6, 7-5, 8-2, 6-2, 10-4, 5-5, 7-6, 7-4, 8-3, 9-3, 9-8, 10-8, 2-1, 4-2, 7-5, 4-3, 8-1, 10-3, 9-6, 9-4, 5-4, 9-4, 2-1, 10-9, 8-4, 10-6, 5-2, 10-1. The path starts at a red double-decker bus labeled 'START' and ends at a school building labeled 'Finish!'. A teacher in a yellow coat and a group of children are also on the path. There is a tree and a sheep in the background.

# Version 2

$13-5=$ 21	$8-4=$ 22	$20-8=$ 23	$10-5=$ 24	Finish 25
$18-12=$ 20	$9-3=$ 19	$10-7=$ 18	$15-1=$ 17	$20-10=$ 16
$4-3=$ 11	$14-7=$ 12	$16-3=$ 13	$7-5=$ 14	$5-1=$ 15
$11-6=$ 10	$17-5=$ 9	$15-11=$ 8	$2-2=$ 7	$12-10=$ 6
Start 1	$17-9=$ 2	$6-2=$ 3	$20-4=$ 4	$9-8=$ 5

Today we will be learning how to solve subtraction number sentences. We will focus on using objects, to help us solve them.

Key vocabulary: subtract, subtraction, take away, less, smaller, equals, count, number sentence.

## 1. Introduction

Before we start today's new learning, ask your child the following questions:

- What can you remember about subtraction? What does subtraction mean? When you subtract/take away, what do you need to do?

### Right or wrong?

Have a look at these number sentences below, that I have tried to solve. I think I have done a super job and used my objects very carefully, to work out the answers. Can you check that I have got them right? Look back at the steps to success to help you.



$$5 - 4 = 2$$

$$9 - 3 = 6$$

$$10 - 2 = 12$$

## 2. Activity - Bingo

For this activity, you will need to create a bingo grid, based on the grid options, across the next two slides.

**Option 1:** If your child is finding this a bit tricky, please choose the first grid, which involves subtracting numbers to 10.

**Option 2:** If your child is ready for a challenge, please choose the second grid, which involves subtracting numbers to 20.

You will also need to use the number cards, that are provided alongside the grids.

### How to play the game:

First, have a careful look at the different number sentences on your grid. Can you read each of the number sentences?

Next, ask your adult to hold up a number card. This number will be an answer, to one of your subtraction number sentences. Your challenge is to match the answers, to the number sentences.

Remember to follow the steps to success and use objects to help you solve the number sentences. Can you find and match the answers for all of your number sentences?

## 3. To finish...

Tell your grown-up **3 things** that you have learnt so far, about subtraction.  
What does subtraction mean?  
When you are subtracting, what do you need to remember? When you subtract, does the number you started with get bigger, or smaller?

I have one final challenge for you. It is a **subtraction word problem!**



Miss Vale went to the shop and brought 7 cupcakes. Miss Vale, Miss Free and Mrs Fleck all ate 1 cupcake each, meaning 3 were taken away. How many cupcakes were left? You can draw a picture of 7 cupcakes and cross one off, to help you work this out.



# Bingo grid and number cards, exploring subtraction to 10

$4 - 2 =$

$10 - 3 =$

$8 - 7 =$

$7 - 2 =$

$6 - 3 =$

$9 - 1 =$

7

8

2

1

3

5

# Bingo grid and number cards, exploring subtraction to 20

$14 - 2 =$

$10 - 3 =$

$9 - 6 =$

$17 - 7 =$

$11 - 10 =$

$12 - 3 =$

12

10

1

3

7

9

Today we will be learning how to solve subtraction number sentences. We will focus on using a number line and counting backwards, to help us solve them.  
Key vocabulary: subtract, subtraction, take away, less, smaller, equals, count, number sentence.

## 1. Introduction

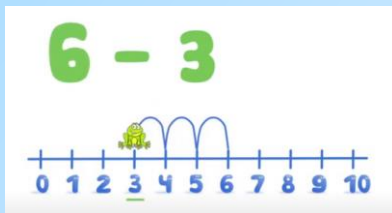
Before we start today's new learning, ask your child the following questions:

- What can you remember about subtraction? What does subtraction mean? When you subtract/take away, what do you need to do?

Explain that today, we are going to explore how to use number lines, to help us solve subtraction number sentences.

Watch the following video, which models how to use a number line in subtraction.

<https://www.youtube.com/watch?v=-BLNxW2Ya5M>



Whilst watching the video, explain that we can count down/backwards on the number line when we are subtracting - does that mean the number we start with gets smaller, or bigger? Have a try at the examples, towards the end of the video.

## 2. Activity - Number line challenge

The Numberblocks have heard all about your super subtraction learning and have set you a challenge for today's learning! They have sent across lots of number sentences, which you will find on the next slide. They would like you to try and use a number line, to solve these number sentences. Have a try at solving 5 number sentences (or more!). You will find a copy of a number line, towards the start of the PowerPoint, or you could make your own giant number line at home!



Watch the video again or ask your adult to show you how it works, if you need more help with this. Adults - if your child does still find this tricky, encourage them to use objects again and model the number line method, after they have their answer.

For an extra challenge - try to write and solve some of your own number sentences. You can use whichever numbers you like 😊

## 3. To finish...

Tell your grown-up 3 things that you have learnt this week, about subtraction.

I have one final challenge for you. It is called **make a match**. Can you solve the subtraction number sentences and match them to the right answers?

$6 - 2 =$	6
$9 - 3 =$	11
$10 - 5 =$	4
$20 - 9 =$	5



$9 - 2 =$

$3 - 1 =$

$17 - 5 =$

$8 - 6 =$

$6 - 3 =$

$12 - 6 =$

$5 - 2 =$

$16 - 6 =$

$5 - 1 =$

$11 - 1 =$

$10 - 10 =$

$8 - 3 =$

$10 - 5 =$

$9 - 6 =$

$4 - 3 =$

$20 - 9 =$

$7 - 4 =$

$1 - 1 =$

$13 - 2 =$

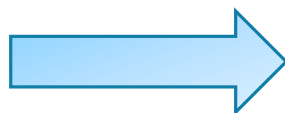
$10 - 2 =$

# MATHS – NUMBER

EARLY LEARNING GOAL IS EXPECTED AT THE END OF THE YEAR

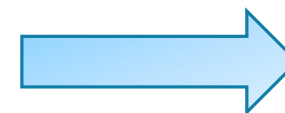
## 40-60 months

- Recognise some numerals of personal significance
- Recognises numerals 1 to 5
- Counts up to three or four objects by saying one number name for each item
- Counts actions or objects which cannot be moved
- Counts objects to 10, and beginning to count beyond 10
- Counts out up to six objects from a larger group
- Selects the correct numeral to represent 1 to 5, then 1 to 10 objects
- Counts an irregular arrangement of up to ten objects
- Estimates how many objects they can see and checks by counting them
- Uses the language of 'more' and 'fewer' to compare two sets of objects
- Finds the total number of items in two groups by counting all of them
- Says the number that is one more than a given number
- Finds one more or one less from a group of up to give objects, then ten objects
- In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting
- Records, using marks that they can interpret and explain
- Begins to identify own mathematical problems based on own interests and fascinations.



## Early Learning Goal

Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.



## Exceeding

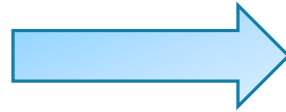
Children estimate a number of objects and check quantities by counting up to 20. They solve practical problems that involve combining groups of 2, 5 or 10, or sharing into equal groups.

# MATHS – SHAPE, SPACE AND MEASURE

EARLY LEARNING GOAL IS EXPECTED AT THE END OF THE YEAR

40-60 months

- Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.
- Selects a particular named shape.
- Can describe their relative position such as 'behind' or 'next to'.
- Orders two or three items by length or height.
- Orders two items by weight or capacity.
- Uses familiar objects and common shapes to create and recreate patterns and build models.
- Uses everyday language related to time.
- Beginning to use everyday language related to money.
- Orders and sequences familiar events.
- Measures short periods of time in simple ways.



Early Learning Goal

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



Exceeding

Children estimate, measure, weigh and compare and order objects and talk about properties, position and time.