

# Language First

## *Closing the Word-gap in Early Years*



# Closing the word-gap in Early Years

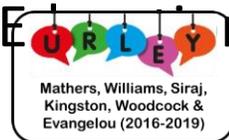


CORE TRAINING DAY 2: Enabling Environments:  
creating a language-enabling environment/maths



Materials used in this professional development are drawn from the URLEY Professional Development Programme.

These were developed by Sandra Mathers (University of Oxford), Clare Williams (A+ Education Ltd), Iram Siraj (UCL), Denise Kingston (Birth to Seven Matters), Janice Woodcock (A+ Education Ltd) and Maria Evangelou (University of Oxford) and are being evaluated as part of a research study funded by the Education Endowment Foundation.



A+ Education  
Raising quality in the early years



Education  
Endowment  
Foundation

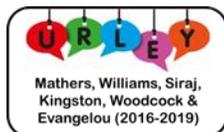
# *Language First* Core Training Overview:



**CORE TRAINING DAY 1: Unique Child/Positive Relationships: creating a baseline for improvement**

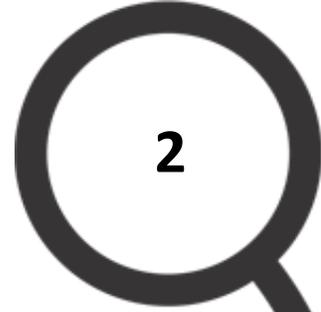
**CORE TRAINING DAY 2: Enabling Environments: creating a language-enabling environment/being a language radiator/maths**

**CORE TRAINING DAY 3: Positive Relationships: creating a culture of conversation/using books/writing**

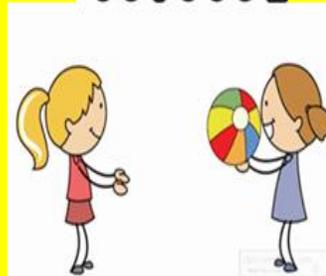
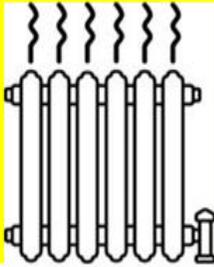
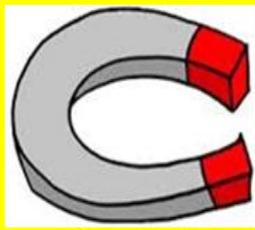


# Our journey today...

1. Reflection on Day 1- theory into action, action into impact
2. Creating a language-enabling environment
3. Maths



# 1. Reflection Day 1 ACTION INTO IMPACT



## Troll, Hanen and The interaction audit (Folder Section 2: adult role audit 1)

- What did this tell you?
- What are your strengths and areas for development?
- What actions did you put into place?



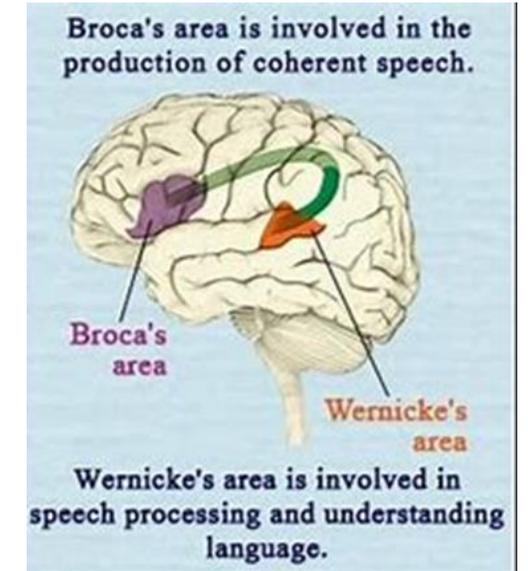
# Interacting with the brain in mind

- *“You can talk to a child until you’re blue in the face, but if you’re not engaging with the child and having a conversational duet about what the child is interested in, you’re not going to give the child the language processing skills that they need,”*

*MIT –Massachusetts Institute of Technology and*



Back-and-forth exchanges boost children’s brain response to language



**LENA<sup>®</sup>**  
*Building brains through early talk*

Using functional magnetic resonance imaging (fMRI), the researchers identified differences in the brain’s response to language that correlated with the number of conversational turns. In children who experienced more conversation, Broca’s area, a part of the brain involved in speech production and language processing, was much more active while they listened to stories.

2:

**Enabling  
Environments:**



# How can you create a language-supporting environment?



- Provide meaningful and irresistible contexts for communication



- Make time for talk



- Get the whole team involved

**P**

- Plan for language

# Gathering evidence on our environment: conversation hot spots activity



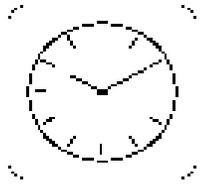
- Create a quick **plan of your room/environment** and jot down your **daily routine**
- Use them to analyse **where** and **when** conversations *with* and *between* children happen in your classroom?



# Meaningful and irresistible contexts for communication



- Children are most confident and motivated to talk about things:
  - they have experience of
  - they are interested in
  - which are meaningful to them
- Build on children's interests and existing knowledge
- Provide rich and varied resources and experiences
- Make the most of play, exploration and investigation
- Offer repeated opportunities for children to bump into/use new language
- Provide meaningful experiences over time



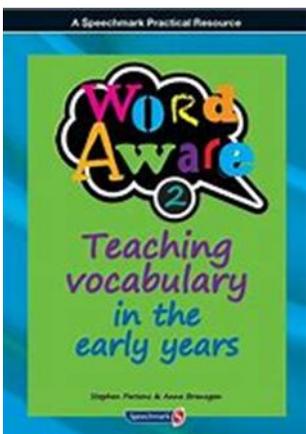
# Structuring your day to support language learning

- Time and space for communication
- Ingredients of an effective language-supporting day include:
  - daily shared reading
  - small-group opportunities for talk
  - language through play
  - incidental and informal chat
  - conversation during routines
  - individual conversations
- Make sure that any whole-group times are rich opportunities for children to *use* as well as to *hear* language.

# Meaningful and irresistible contexts for communication



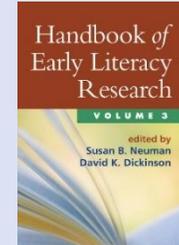
Catherine Snow  
argues that the 30  
million word gap is not  
just a **word** gap but a  
**knowledge** gap.



# What does the research evidence say?



**Lessons from the crib to the classroom: how children really learn vocabulary**  
(Justin Harris and colleagues, 2010)



## Read

- GROUP 1: Word learning in the wild (p.51-top of page 53)
- GROUP 2: Children learn words for things and events that interest them (p.54)
- GROUP 3: Children learn words best in meaningful contexts (p.55-56)
  
- Groups to Present and share key points and include examples of theory into practise

## Children talk more when they feel confident about their topic...

.....start with what children know and understand. What do they see or do at home and in their communities?.....



## Provide rich resources to support complex play and language

.....then think about how you can enrich and expand children's vocabulary within meaningful contexts, for example:

- having a drink by the bed, potty, books and bedside light for a bedtime routine.
- add a pet that needs a bed and bowl and needs to be fed, looked after and cared for;
- do the washing, sort it, hang it to dry.
- create different rooms so children can use the words for kitchen, bedroom, bathroom.
- use multiple areas to create linked meaningful experiences (e.g. buy things in the shop, bring them home, use them, recycle the packaging)



The unfamiliar can also promote talk, and introduce new vocabulary, language and concepts

Open-ended resources



# Planning, Teaching, creating an enabling environment with a Language Lens Progression...

- Autumn
- Spring
- Summer
- Nursery
- Reception



# ECERS-3 Item 21 Dramatic play

1	3	5	7
<p><b>1.1</b> Not enough materials, furniture for dramatic play for 2 children to be happily engaged</p> <p><b>1.2</b> Most dramatic play materials are broken, incomplete or hard to access</p> <p><b>1.3</b> Staff usually ignore children in the dramatic play area, except to stop disruptive behaviour</p>	<p><b>3.1</b> Some dramatic play furniture accessible for at least 25 minutes during the observation so that children can act out family roles themselves</p> <p><b>3.2</b> Staff are somewhat responsive to children during dramatic play</p> <p><b>3.3</b> Most of the staff interaction is positive or neutral</p>	<p><b>5.1 Many and varied dramatic play materials, enough for number of children allowed, are accessible including dolls, child-sized furniture, play foods, cooking/ eating utensils, dress-up clothes for boys and girls</b></p> <p><b>5.2</b> A dramatic play interest centre meetings requirements in 5.1 is accessible for at least 1 hour during the observation</p> <p><b>5.3</b> Staff carry on conversations with the children as they play, joining in but not taking over</p>	<p><b>7.1</b> At least 4 clear examples to represent diversity are included for dramatic play</p> <p><b>7.2</b> Staff talk with children about print and numbers in dramatic play in a way that is meaningful to the children</p>



# Reflecting on your role play provision

- Share the photos of your role play area/s (or describe them).
- Discuss and evaluate them using ECERS-3 Item 21 and the your learning about 'meaningful and irresistible contexts' as your guide

## **POSITIVE RELATIONSHIPS:**

ECERS-3 Item 21  
Dramatic Play



**How would your class/  
room do on this item?**

SAMPLE

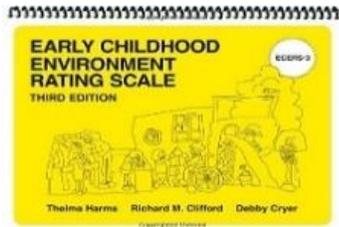


# Reflecting on your role play provision- Focusing on those children who need us the most

- Are there changes you could make to your role play provision to support these children in communicating and in learning/using new words? What would make it meaningful and irresistible for them?

## UNIQUE CHILD:





# ECERS-3 Items to support an Enabling Environment



- 15 Encouraging children's use of books
- 17 Fine motor
- 18 Art
- 19 Music and movement
- 20 Blocks
- 21 Dramatic play
- 22 Nature/science
- 23 Maths materials and activities
- 24 Maths in daily events
- 25 Understanding written numbers
- 26 Promoting acceptance of diversity
- 27 Appropriate use of technology
- 34 Free play

## Interest centres

- well defined with space to play
- materials to support specific type of play
- organised by type, **accessible** to children
- does not mean all resources of this type have to be in the interest centre but **grouping** resources helps to make them meaningful
- **LAYERS OF CHALLENGE**



Read definitions 1 and 5 on p.10-11 of the ECERS-3







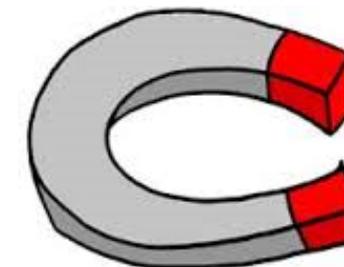
TIME  
FOR A  
BREAK



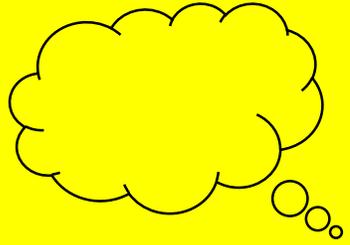
# Is your environment meaningful and irresistible to *your* children?

- *Whose* interests are reflected in your environment and in the experiences you provide?
  - Is there something for all communicators?
  - How well do you know what your child is interested in?  
**child bursting to talk with**

Noah has been making a shrine box all about himself.  
Violet asks him to tell her about it



- Watch the two DVD clips and think about how these practitioners have tuned in to children's interests to encourage communication



# Do you know what your children are able and excited to talk about?



- Do you **(and other adults in your class/room)** know what each of your children know and care about?

- what is happening at home?
- what are they good/proud of?
- what are they excited about/fascinated by?



## One good idea:

- Create 'I would love to talk to you about...I am proud of...'  
posters for each child in your class and display them so that all adults can use and refer to them
- Ask children and parents to help you create them



# Reflecting on your environment

- Reflect on the previous activity:
  - Do you really know your children's interests and what they are bursting to talk with you about?
  - How does your environment reflect individual children? Is there something for each child?



# Take it Back: Core Task 1

## ENABLING ENVIRONMENT



### **Meaningful and irresistible contexts for communication**

What changes can you make to your continuous provision.

Use:

- At least one item from the ECERS-3 Learning Activities subscale (e.g. Dramatic Play, Block Play)
- Information from your class record

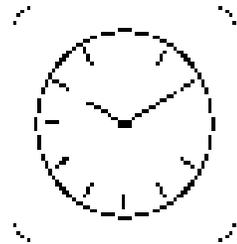
You might decide, for example, to make your role play provision meaningful and irresistible for your reluctant communicators. Or you might decide to review all your continuous provision areas and enrich resources to support vocabulary learning.

P

# Planning resources and experiences to support language learning

- Meaningful contexts (for **your** children) and real, concrete experiences
- Rich resources which support complex multi-layered play
- Be *intentional* about language and vocabulary
  - do your resources help you to be a language radiator and support children to bump into/use new words?
  - plan for language in all activities and areas of learning. List key vocabulary on planning/in classroom areas
- Help children bump into/use new words **repeatedly** in many **meaningful** contexts
  - provide resources and props which relate to the new words
  - model them in a range of contexts
  - plan follow-up and extension activities
  - read books multiple times

# Structuring your day to support language learning

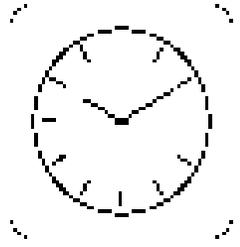


# Gathering evidence on our environment: conversation hot spots



**Where and when do conversations with and between children happen in your classroom?**

Reflect on your Reception Timetable



# A language-rich day



- Time and space for communication
- Ingredients of an effective language-supporting day include:
  - daily shared reading
  - small-group opportunities for talk
  - language through play
  - incidental and informal chat
  - conversation during routines
  - individual conversations
- Make sure that any whole-group times are rich opportunities for children to *use* as well as to *hear* language.

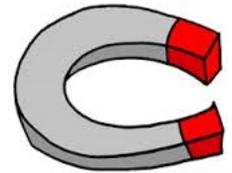


# An effective daily structure will support you to enact the Language Learning Principles

## Example statements from the Environment Rating Scales...

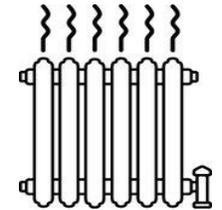
- **ECERS-3 ITEM 30 Staff-child interaction**

- 5.1 Frequent positive staff-child interaction observed throughout the observation with no long periods of no interaction



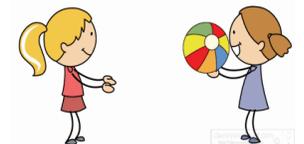
- **SSTEW ITEM 8 Sensitive Responsiveness**

- 5.1 Staff ensure that most children receive extended individual attention at least once during the session



- **ECERS-3 ITEM 13 Encouraging children to use language**

- 5.2 Many staff-child conversations during indoor free play



# The ingredients of an URLEY day: use Audit Tool 2



Daily shared reading group



Large group



Conversation during routines/whole group



Incidental & informal chat



Small group opportunities for talk



Individual conversations

# Reflecting on your daily structure

- Review your class/room one more time, reflecting on whether you have all the ingredients of a language-rich day

# LANGUAGE FIRST



# Take it Back: Core Task 2

## ENABLING ENVIRONMENT



### **Make time for talk**

Extend the work you have done today on the ingredients of an URLEY day/your daily routine. Observe using **Environment Audit 2** if you need to gather more evidence. Make at least one change or adaptation based on your evidence.

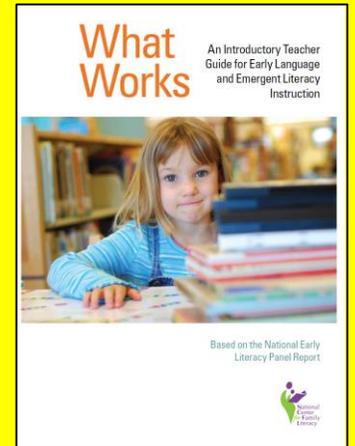


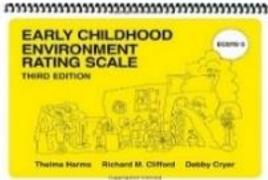
Time for  
lunch

# Read and Reflecting on group sizes



“The shared reading processes as described in effective studies included in the NELP Report were implemented one-on-one or in small groups. However, early childhood classroom teachers often read books aloud ...with the whole class. Until there is evidence of whether or not this is effective, it is recommended that teachers plan for and provide one-on-one and small group interactive shared reading opportunities....and incorporate similar strategies when reading to larger groups”





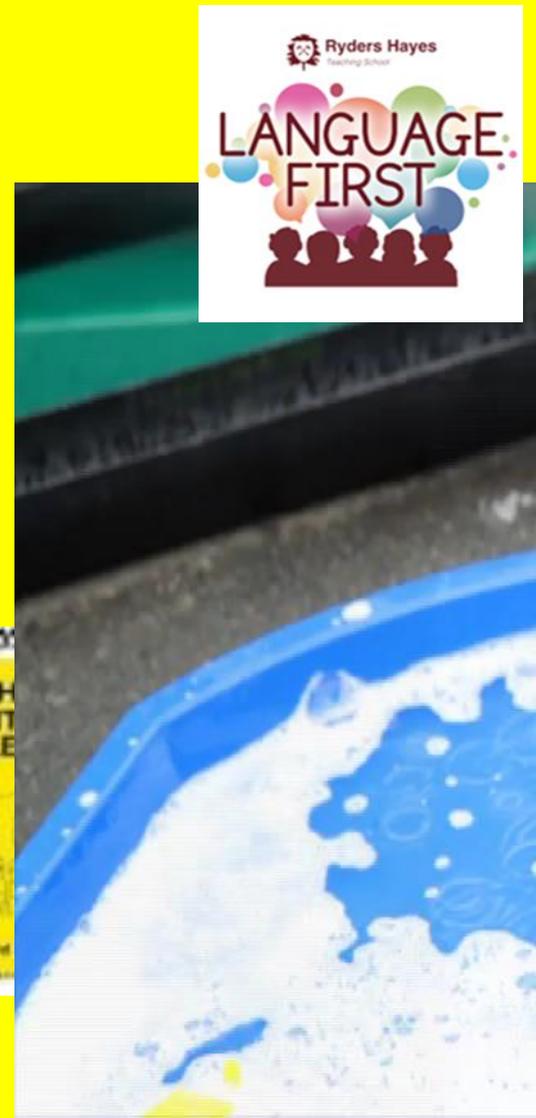
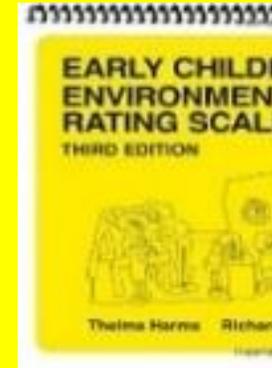
# ECERS-3 Item 35 Whole group activities for play and learning



Think back to Becky's group time again and use **ECERS-3 Item 35** as a guide for evaluation

# Is every child *using* as well as *hearing* language during your group times?

- **Item 35 (7.1)** All children in the group are actively engaged in group activities
- Use the Group Time Audit Tool (Child Assessment Tool 4) to dig a little deeper and consider the experience of **individual children** during Becky's group time
- **What can you see? What could be even better?**



# Reflecting on your whole group time

Is group time a meaningful and irresistible context for all your children?

Maximising every opportunity...

# LANGUAGE FIRST



4:

# Maths



What dose of maths do your children have in Reception?

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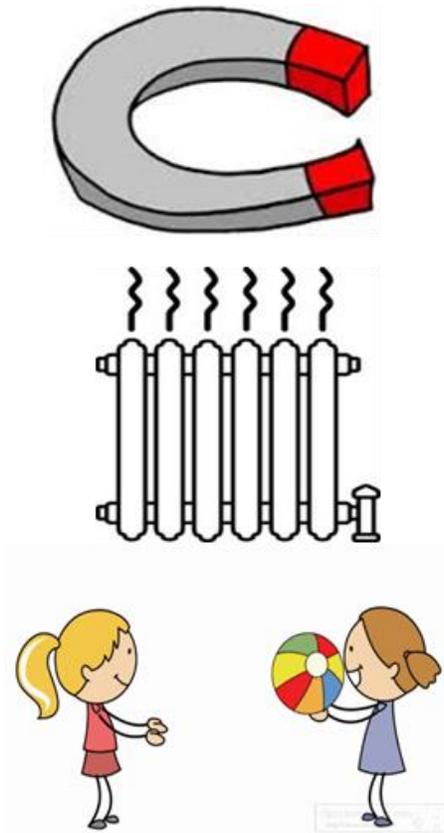
- “Central to effective mathematical pedagogy in the early years is fostering children’s natural interest in numeracy, problem solving, reasoning, shapes and measures” (Williams review)

# Williams Report

Other features of effective early years mathematical pedagogy are

- building on play
- making the most of everyday routines and spontaneous learning to develop mathematical skills and concepts
- requiring practitioners to support, challenge and extend children's thinking and learning through sustained shared thinking and use of accurate mathematical language...

*(Williams review)*



# Infusing Rich Mathematical Language

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# Early Years Outcomes task

- Steeped in Vocabulary
- Highlight EYO statements where it refers to talk
- *Word Aware*



# 40-60 months Numbers



- 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 five 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.

- I can recognise numbers that are important to me like my age, my flat number or the bus number that I go to nursery on.
- I can recognise the numbers 1 to 5.
- I can touch one thing and say the number name at the same time to help me count up to 3 or 4 things.
  - I can count the number of things on a page in a book or on a birthday card.
  - I can match the right number to a group of things from 1 to 5 to begin with, and then from 1 to 10.
  - I can guess how many things I can see in a bucket and then count them to see how close my guess was.
  - I can tell you which basket or bucket has got "more" or "fewer" things in.
  - I can put two baskets of things together and tell you how many things I have altogether.
  - I can tell you what "one more" is when you say a number. • I can tell you what "one more" or "one less" is when you give me a group of up to 5 things, then up to 10 things.
  - I can use words like "more", "add", "less" and "take away"
  - I can use marks and pictures to show you my counting.
  - I can use counting to help me solve problems that are important to me, like splitting my sandwich in half to share with my friend.

# ELG

**Children count reliably with numbers from one 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.**

STA additional guidance – The specification of 1-20 refers to the first part of the statement ie. Counting reliably, placing in order and one more /one less. The second part of the statement refers to the adding and subtracting of 2 single digit numbers so by default goes up to 18 (9+9). There is no specification on the doubling and halving as this is more about the concept and idea of sharing, doubling and halving and it would be up to the practitioner to determine the quantities/objects used.

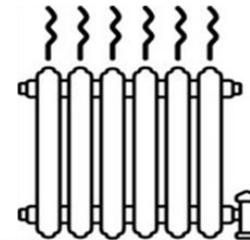
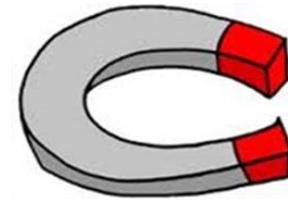
# The importance of talk ....

Explaining, talking and discussing are all important parts of learning maths. We need to support discussion and ask questions.

- Have a DIALOGUE

## **ECERS-3 ITEM 13 Encouraging children to use language**

5.2 Many staff-child conversations during indoor free play

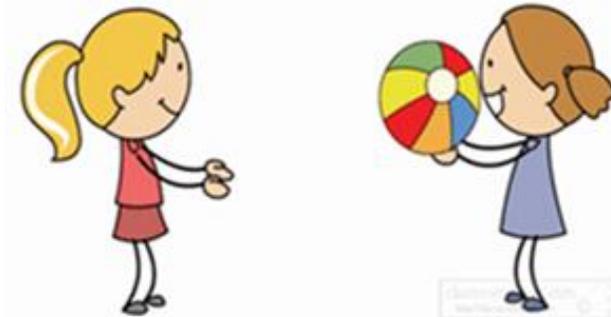
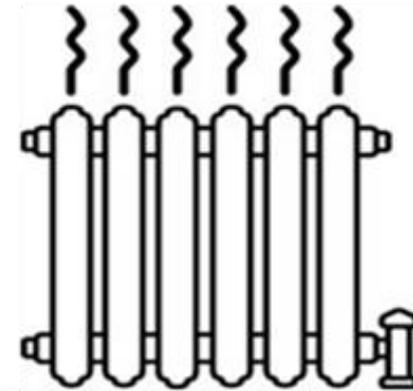
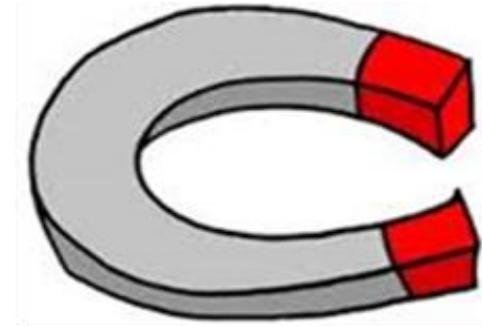


# Questioning

- How can... (we make sure we have enough strawberries for everyone)?
- What will you need... ( to make this necklace longer than that one)?
- Explain to me why... (you think that bear won't fit in the box).
- How do you think we could... (make sure we all get the same number of beads)?
- How can you... (make this pattern with these beads)?
- Why do you think... (this will not work)?
- What did you notice about... (the collection of cars)?
- I wonder what would happen if... (we put these two shapes together to make a new shape)?
- If we... (put this stone in this tube of water)... what do you think will happen?
- Why did... (the water move up the tube)?
- My...(shape) is different from... (your shape). Tell me some of the things that are the same and the things that are different.
- What could we do to... (remember the number of children who have made sandwiches)?
- What can we... (buy in the shop with these coins)?

## Eating "Snakes"

ALL RESOURCES





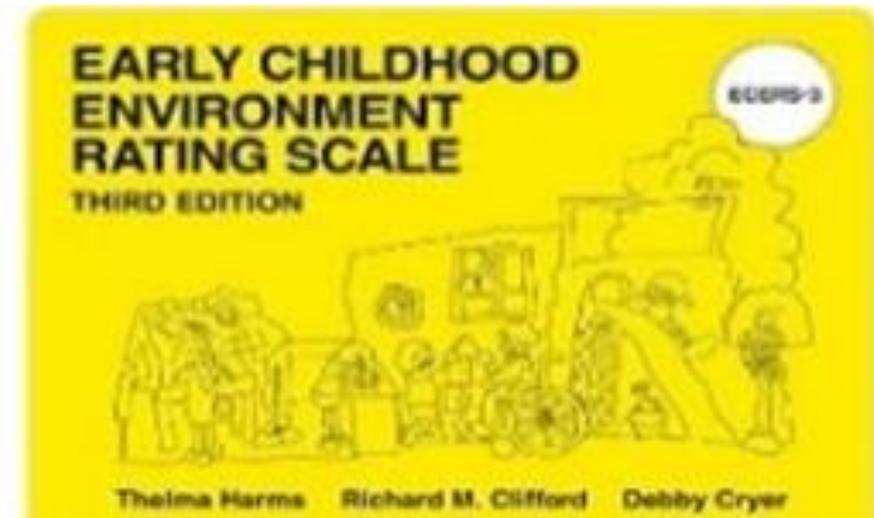
In order to develop the 7 key areas of early mathematics learning, which collectively provide a platform for everything children will encounter as they progress through their maths learning at primary school, and beyond:

- Cardinality and Counting (Subitising)
- Comparison
- Composition
- Pattern
- Shape and Space
- Measures.
- See: <https://www.ncetm.org.uk/resources/52500>

## What and How?

# Maths Materials and Activities

- At least 10 different appropriate maths materials, with at least 3 from each of the 3 categories listed, are available for at least 1 hour during the observation.
- Staff frequently join in children's play with maths materials.
- Staff encourage children to use their fingers to represent numbers (Ex: in songs; to show age; while reading counting books).
- Staff encourage use of maths materials/activities and help children use them successfully.
- Staff relate maths materials/ activities to current topics (Ex; through resources).
- Staff ask children questions about maths that stimulate reasoning (Ex: "What will happen to the square shape if we add another square next to it?")



# Maths in Daily Events

- Staff encourage maths learning as part of daily routines (Ex: counting to 20 while washing hands; counting children during registration).
- Staff engage children in conversation about maths as they play in non-maths area (Ex: discuss using measuring cups to water the plants).
- Staff help children to connect printed numbers or shapes with everyday use in their environment (Ex: talk about the number on the clock and what they mean in terms of going outside to play).
- Staff often use questions while interacting with children in non-maths areas to encourage children to explain their own maths reasoning (Ex: “How did you know if you got enough pencils for everyone?”).

# Understanding Written Numbers

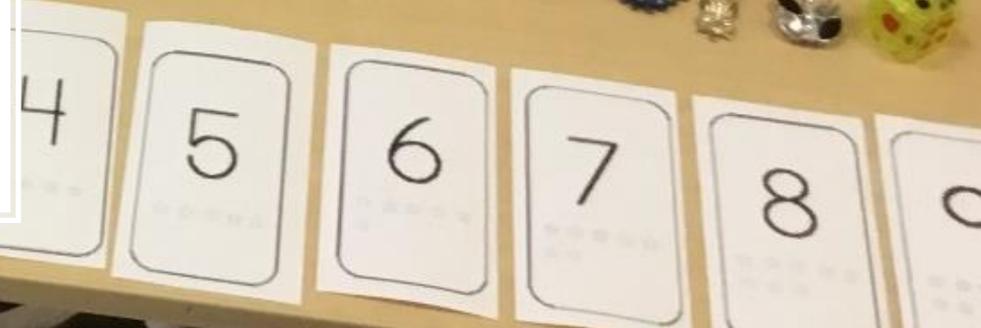
- Play materials that help show children the meaning of print numbers are accessible during child initiated time (Ex: puzzles with number on one piece and that number of dots on matching piece; puzzles with numbered fingers on a hand; matching picture/number card game).
- Staff frequently show children how to use materials and talk about the meaning of printed numbers (Ex: point out numbers on rulers or thermometers, showing how they indicate differences in size or amounts).

Discussion Point 3

What opportunities are there for children to use their own mathematical graphical representations?  
What do you provide to ensure this is happening?

Finds the total number of items in two groups by counting all of them

Records using marks that interpret and explain





# Addition

Maths for young children should be meaningful. Where possible, concepts should be taught in the context of real life.

## GUIDANCE / MODELS AND IMAGES

If available, Numicon shapes are introduced straight away and be used to:

- identify 1 more/less
- combine pieces to add
- find number bonds
- add without counting



Children can record this by printing or drawing around Numicon pieces.

Children can begin to combine groups of objects using concrete apparatus:



Construct number sentences verbally or using cards to go with practical activities.



Children are encouraged to read number sentences aloud in different ways "Three add two equals 5" "5 is equal to three and two" "5 is the same as three and two"

Children make a record in pictures, words or symbols of addition activities.



Solve simple problems using fingers

$$5 + 1 = 6$$

Number tracks can be introduced to count up on and to find one more:



What is 1 more than 4? 1 more than 13?

Number lines can be used alongside number tracks and practical apparatus to solve addition calculations and word problems:



**Children will need opportunities to look at and talk about different models and images as they move between representations.**

## KEY VOCABULARY

Games and songs can be useful way to begin using vocabulary involved in addition i.e.  
One elephant went out to play

plus

estimate

add

more

and

sum

total

make

altogether

score

double

one more, two more, ten more...

how many more make?

How many more is ... than ...?

same as

# Subtraction

## GUIDANCE / MODELS AND IMAGES

Children begin with mostly pictorial representations or real contexts.

Concrete apparatus is used to relate subtraction to taking away and counting how many objects are left.



Concrete apparatus models the subtraction of 2 objects from a set of 5.

Construct number sentences verbally or using cards to go with practical activities.



Children are encouraged to read sentences aloud in different ways "five subtract one leaves four" "four is equal to five subtract one" "four is the same as five subtract one"

Children make a record in pictures, words or symbols of subtraction activities.

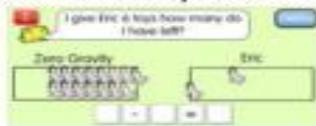


Solve simple problems using fingers



Number tracks can be introduced to count back and to find one less:  
What is 1 less than 9? 1 less than 20?

Number lines can then be used alongside number tracks and practical apparatus to solve subtraction calculations and word problems. Children count back showing hops back on the number back.



$$10 - 3 = 7$$



**Children will need opportunities to look at and talk about different models and images as they move between representations.**

## KEY VOCABULARY

Games and songs can be useful way to begin using vocabulary involved in addition i.e.  
Five little men in a flying saucer

take (away)

estimate

leave

how many are left / left over?

how many have gone/

one less, two less, ten less...?

how many fewer is ...?

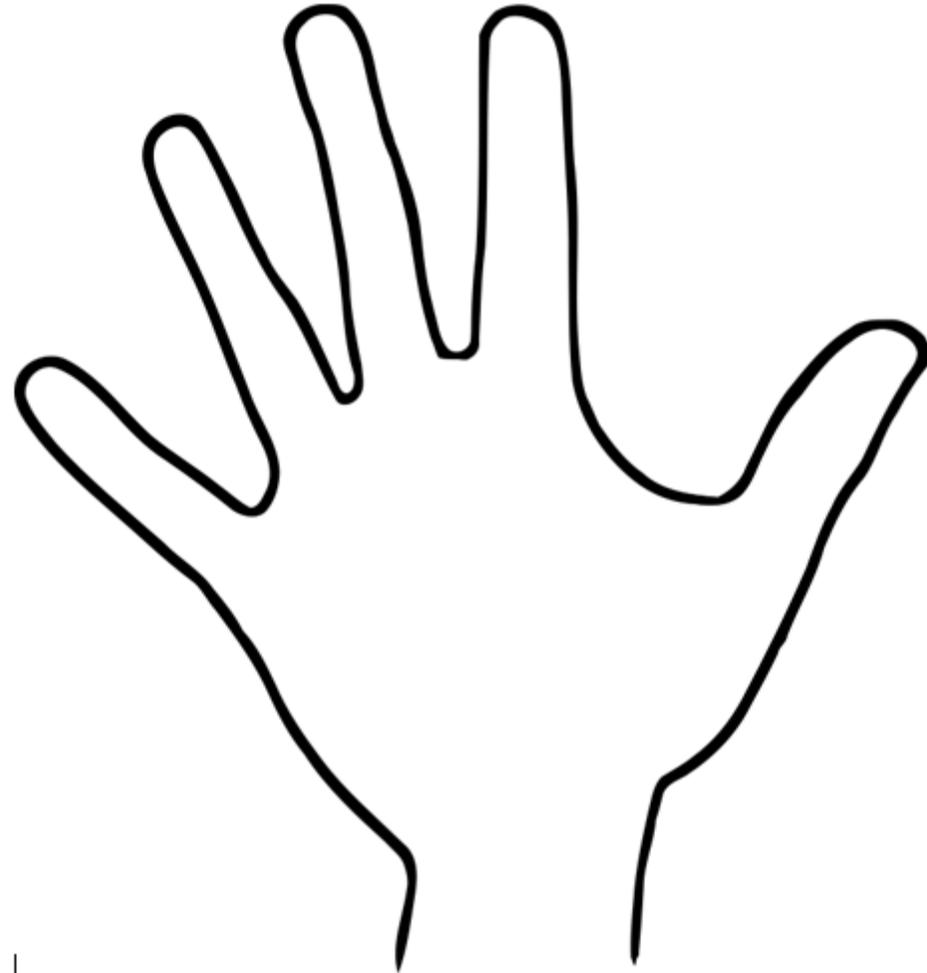
than...?

difference between

the same as

hopping back

## 5 points to Action



My Actions: What will I do next to make a difference to my children?

# Take it Back: Core Task 1

## ENABLING ENVIRONMENT



### **Meaningful and irresistible contexts for communication**

What changes can you make to your continuous provision.

Use:

- At least one item from the ECERS-3 Learning Activities subscale (e.g. Dramatic Play, Block Play)
- Information from your class record

You might decide, for example, to make your role play provision meaningful and irresistible for your reluctant communicators. Or you might decide to review all your continuous provision areas and enrich resources to support vocabulary learning.

# Take it Back: Core Task 2

## ENABLING ENVIRONMENT



### **Make time for talk**

Extend the work you have done today on the ingredients of an URLEY day/your daily routine. Observe using **Environment Audit 2** if you need to gather more evidence. Make at least one change or adaptation based on your evidence.

Make every  
interaction count

Especially for those that  
need you the most

Please complete Day 2