

# Primary One Numeracy and Mathematics Curricular Afternoon



Kinellar School  
2021



**Numeracy** is all aspects of number, including addition and subtraction.



**Mathematics** is all other areas including time, information handling, shape and measure.

This will include numbers, but apply them to different concepts.



# Learning Numbers

Our number system, for children, takes time to truly understand – in the same way a foreign language takes time for adults to learn.

Take a mental note ...

0	1	2	3	4	5
⌠	₣	∂	ς	φ	Ω

# Stage 0 – Emergent Counter

Learners are still learning to recognise numerals.



Learners are still learning the names for numbers.

Learners are still learning to match number words with counting objects.

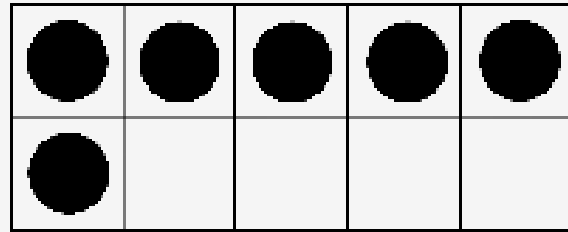


## Stage 1 – Perceptual Counter

Learners can count items that they can see, hear or touch.



Learners start counting from the number 1.



This is often our focus at the beginning of Primary One.



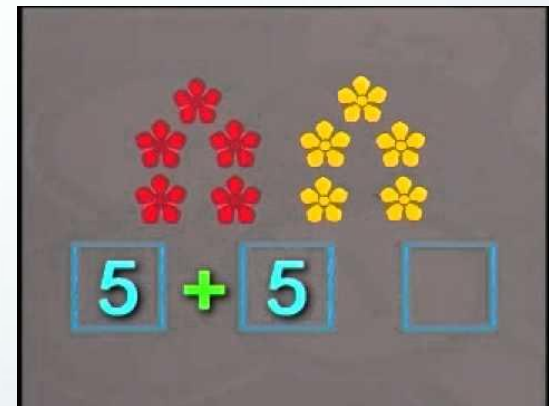
## Stage 2 – Figurative Counter

Learners can count and combine the total of two groups of objects that they can see, hear or touch.

Learners start counting from 1.

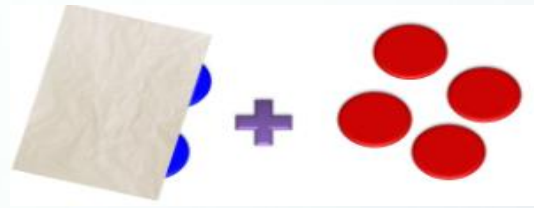
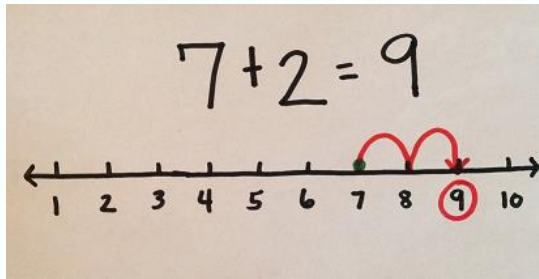
This will support the beginning stages of addition.

**Some** learners may focus on this when starting Primary One.



## Stage 3 – Initial Number Sequences

Learners can '**count on**' from a number. This means starting from any number and counting forwards, not just 1.



$$2 + 4 = 6$$

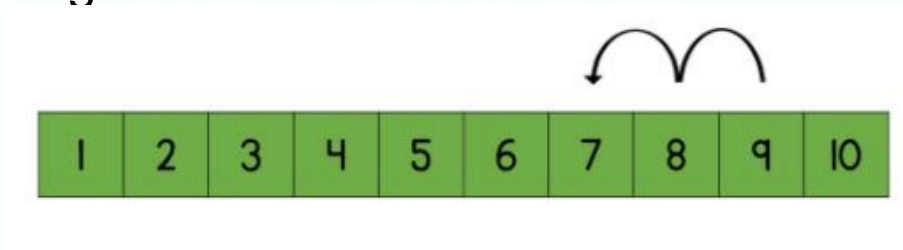
Learners may use this to solve addition problems.

They may also use this to solve **missing number** problems.

$$5 + \square = 12$$

## Stage 4 – Intermediate Number Sequence

Learners can also '**count down**', starting from any number and counting backwards.



$$7 + \boxed{2} = 9 \quad \text{Count down to } 7$$

$$9 - 2 = 7 \quad \text{Count down from } 9$$

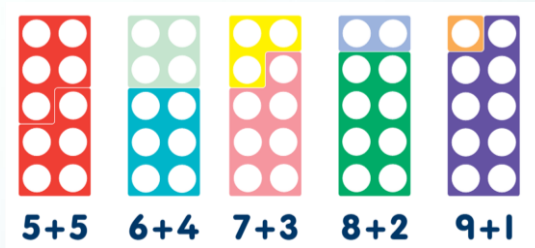
This is useful for subtraction **and** missing number problems.



## Stage 5 – Facile Number Sequence

Learners can use **lots of different strategies** instead of counting objects one by one.

Knowing addition facts (sometimes called number bonds).



Knowing twin facts (called the commutative law).

$$2 + 4 = 8 \quad 4 + 2 = 8$$

Knowing subtraction is the **opposite** of addition.

$$1 + 2 = 3 \quad 3 - 2 = 1$$



## Stage 5 – Facile Number Sequence

Learners can use **lots of different strategies** instead of counting objects one by one.

Using number patterns.

$$6 + 2 = 8 \quad 16 + 2 = 18$$

Compensation – using a more **'friendly'** number

$$\begin{array}{r} 9 + 6 \\ +1 \quad \downarrow -1 \\ \hline 10 + 5 \end{array}$$

Knowing doubles, or skip counting in 2s.



# Mathematics Concepts Covered at Early Level



Measure using  
Non-Standard Units



Information Handling



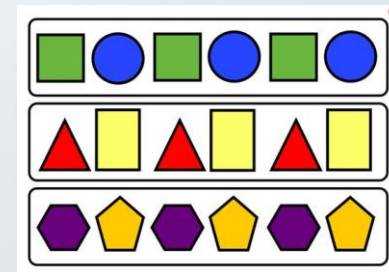
Digital and Analogue  
Time



2D and 3D Shape



Money



Pattern



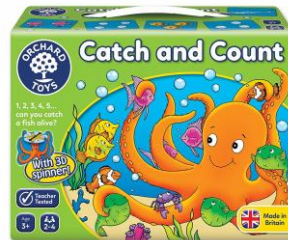
# Supporting Numeracy and Mathematics in School

Some of the practical materials we use to support counting, ordering and numeral recognition.



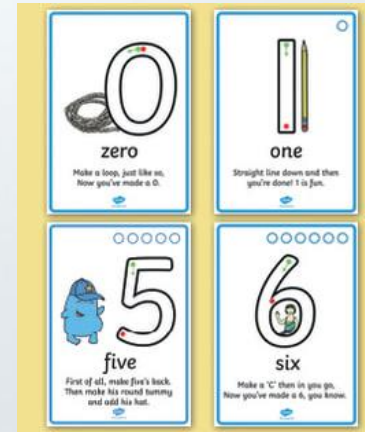
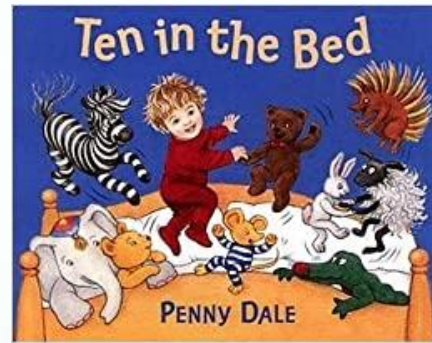
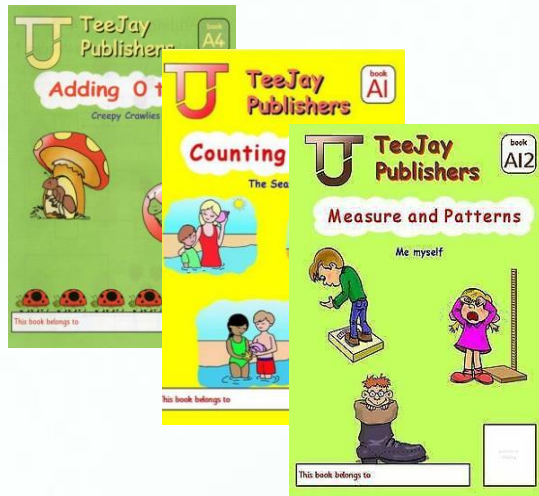
# Supporting Numeracy and Mathematics in School

Some of the games we play to support a variety of Numeracy and Mathematics concepts.



# Supporting Numeracy and Mathematics in School

Oral and written Numeracy and Mathematics activities.



# The Numeracy or Maths Lesson

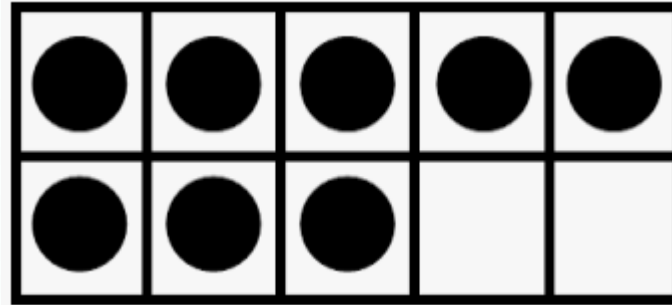
Teacher led whole class or group introduction **then...**

## Learning & Teaching Activities

- Teaching station – workbooks, guided by teacher
- Various multi-sensory maths activities carried out independently or with PSA
- Teacher led whole class plenary



# Number Talk



How many dots do you see?

How do you know?



# Number Talk

$$6 + 8$$

Can you work out the solution to this problem?



Be ready to explain how you got your answer.

If you have solved the problem, think of another way to find the solution.



You can keep finding as many strategies as you can.

# Supporting at Home

Encourage your child to explore numbers, and to understand that each number represents a specific amount.



- 1** Count out loud with your child – counting forwards and backwards builds confidence in number order.
- 2** Count real objects as you go about your daily routine – cups, socks, shoes, packets. As your child becomes confident in doing this, begin to add and take away. For example 'If I add 3, how many will I have?'
- 3** Play number spotting games at home or at the shops and look for numbers on packages, clocks, coins, buses and car registrations.
- 4** Have fun with numbers and make sequences and patterns together, grouping items into 2s, 5s or 10s.
- 5** Use words such as first, second or third to help your child understand and describe the order of things. For example 'Who will be first to be dressed for going out, who will be second?'

*from Education Scotland*

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>





Play I-spy and spot numbers as you go. This will help your child recognise lots of numbers and become more familiar with the sequence of numbers. You can also encourage your child to count the number of yellow cars, carriages on a train or wheels on a lorry, bus or car.

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Talk about the distance you have travelled in a way that your child can understand. For example: 'We are two streets away from home' or 'Three more stops on the bus and we will be there' or 'Let's count how many steps until we reach the front door'.

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Look for notices and signs when you are out – how many are the same or different? Talk about signs that are different shapes, colours or have different numbers on them.

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Look at coins together and involve your child as you pay for bus and train tickets. This will help coin recognition, counting and understanding that more coins may not mean more value.

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>

*from Education Scotland*



**Encourage your child to collect, organise, match and sort objects in different ways. Try organising by shape, colour, size or purpose.**

**Create opportunities for your child to use time, number and technology to make choices and decisions, like selecting favourite TV programmes, or using programme recording functions.**

- 1** Involve your child when recycling and sorting rubbish or old things – talk about the shape and size of the objects as you sort.
- 2** Encourage your child to help you with the washing, perhaps by sorting light and dark clothes and programming the washing machine. Your child can also organise the clean clothes by matching the item to the owner. By doing these kinds of chores together, your child develops numeracy skills as they make judgements and estimates about size.
- 3** Involve your child as you look at a timetable to plan your journey. Decide together what time you should leave home, when you are likely to arrive, and what number of bus you need to take.

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>

*from Education Scotland*

# 1

# 2

# Measurement



At bathtime, talk together with your child about the water level rising as you fill the bath. As your child plays in the bath, use different sizes of plastic tubs or containers to compare sizes, for example by asking, 'How many little tubs of water will you need to fill the big tub?'



Involve your child when you are baking and cooking by measuring ingredients using spoonfuls, cupfuls or scales. Use language such as more and less /fewer, heavier and lighter to compare amounts.



As you tidy up, encourage your child to arrange toys or books in order of size, width or height, and clothes in order of length or size. As you sort out the toy box together, ask your child to find things that are shorter, longer, or about the same size.



Encourage your child to guess which glass will hold more juice and then try it out, as this will be fun and increase understanding about volume. Your child will soon discover how containers that are short and fat can hold the same amount as glasses which are much taller and thinner.

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>

*from Education Scotland*



# Money

Helping children to become aware of money is a very important part of developing good numeracy skills.



Talk about the names, value, shape, size and colour of coins as you use them.

When shopping, draw your child's attention to the different ways you can pay for things such as using bank cards both in shops and online.

Take an interest in your child planning how they will save or spend pocket or birthday money as this will help to begin, build on, and develop money management skills.

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>

*from Education Scotland*

# Time

**Help your child to become aware of the seasons, months of the year and time of day. Learning about time is an important part of numeracy and an essential life skill.**

As you go about your routines and tasks, use words that help your child to understand time, such as yesterday, tomorrow, next week, last year and so on.

Point out the time on the clock, particularly at breakfast, dinner or bedtime by noticing and chatting about where the big and little hands are. As your child understands more, they will want to know more. Use a clock with clear and familiar numbers.

Through everyday use and conversation, your child will understand what calendars are used for. Talk about the day, date, month and year. Record appointments on the calendar together and count how many sleeps, days or hours until a birthday or other important event.

Help your child to become aware of time passing, by encouraging your child to notice seasonal changes all around.

<https://education.gov.scot/parentzone/Documents/EveryDaysaLearningDay3to6.pdf>

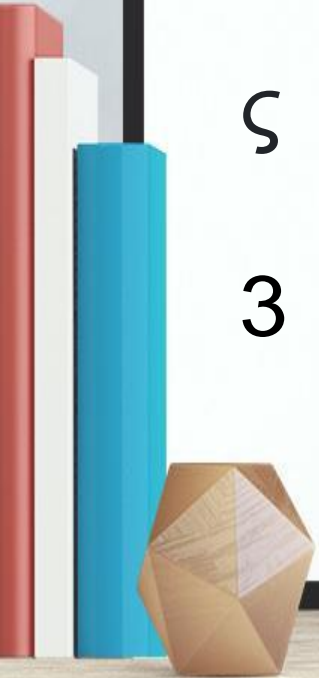
*from Education Scotland*

# Finally...

Can you remember these numbers?

$\zeta$   $\text{F}$   $\Omega$   $\partial$   $\triangle$   $\varphi$

3 1 5 2 0 4





# Thank you for your time

- + We hope you have found this session helpful and you now have an overview of Numeracy in Primary 1.
- + Please leave us some feedback using this link:
- + <https://forms.office.com/r/Kz0nKUYqzc>
- + If you have any further questions about supporting your child, please get in touch with their class teacher.

