

Name of Trainee: <u>Sion O'Sullivan</u>		Session ref: _____	Date: <u>07-01-2020</u>	Class: <u>Reception/Year 1</u>	Foundation Phase
			Number of learners: <u>22</u>	Age: <u>Age 4-6yrs</u>	
<u>Learning Objectives:</u>	Knowledge and understanding of mathematics through oral practical and play activities. With an opportunity to use teamwork and communication skills throughout the task.	<u>Success Criteria</u>	• To gain a greater understanding of additional sums in mathematics. • to develop teamwork skills when working in a group for the bingo activity. • use strategies learnt from the plenary activity in order to help solve problems faced in the main activity.	<u>Meeting learners' needs:</u>	• Give examples of the activity beforehand as a class to understand what is needed to be done. • Ensure all equipment needed is provided to the pupils to enable them to complete the task at hand. • Teacher and LSA will be at hand throughout the session to ensure all problems or issues can be solved. • Mix mathematical levels of students in the groups to allow classmates to help each other if needed, this also allows a fair game in the bingo.

Introduction/plenary tasks	Main activities	Resources/ Key Vocabulary	Assessment for Learning (strategies and opportunities)
INTRODUCTION ACITIVTY – (10 MINS) Hula Hoops – Addition The introduction activity will include the use of 3 hula hoops placed on the floor of the classroom. here the teacher will demonstrate additional sums by placing a certain number of balls into the hula hoops in order to represent a sum, e.g. $6+4=10$. this will be done as a whole class activity in order for the class to gain an understanding of addition as a broader scale. after a couple of times going through this, the teacher will then allow certain individuals to have a go at making the sums for class to answer. See Separate sheet for in formation of the set up and how the model should look on the classroom floor.	MAIN ACITIVTY – (30 MINS) Class Bingo The main acitvty of this session will be class bingo. this nwill include groups of 5 will each have a whiteboard give to them with different sums on the whiteboard in form of a grid. all the sum swill be different so no group has the same sums on it. From this, the teacher will act as the 'bingo caller' and call out the answers to some sums, if the group has the correct sum for the answer, they will cross out the relevant sum, e.g. teacher will call out 10, and the group can cross out $5+5$. When a group has crossed out all the sums on their whiteb oards, the group can then shout 'BINGO!' in ordeer to win the game. This will be played more than once in order for the children to fully understand the task. the use of the starter activity of the hula hoops will help the children understand. what needs to be done by a gap in the hula hoops and then the children filling it with balls in order to create the correct sum. When the children have become familiar and are comfortable with the activity then the sums will be made harder and double digit sums could be introduced like, $11+4$.	RESOURCES: STARTER: - 3 Giant Hula Hoops - 2 Card cut-outs of an Addition Sign & Equals - 15 soft balls – to place in hoops Main Activity: - 6 Mini Whiteboards - 6 Whiteboard Pens - 5 Seperate Tables – For Groups. - 6 Sponges – To rub off sums Plenary: - 11 Dices - Stopwatch Key Vocabulary: - Addition - Add - Sum - Numbers - Equals - Bingo Welsh Vocabulary (Bilingual) - Ychwanegaid - Swm - Rhifau - Hafal - Bingo	- Do the children understand the tasks set for them? - Are the children able to answer majority of the additional sums that have been set? - Are the children able to solve gaps in the additional sums using objects such as balls? - Can the children answer some of the additiinal sums quickly without having to think of how to work it out? - Can the children work in dependantly to work out sums? - Are the children using their teamwork skills effectiviely to work out the answer to additional sums? - Are the children confidcent in doing addition sums again in the future? - Can the children get the right sum when the teacher only gives the answer?

Plenary

Using Dices – Addition (15mins)

The plenary activity will give the children a chance to use a separate teamwork skill in pairs. Here each pair will have a dice, one will roll the dice twice and give the opposite child a sum from what was rolled on the dice, for example, the child rolls a 6 and then a 3, the opposite child will answer $6+3=9$. This will be a quick-fire activity that will give each child a minute to answer different sums before swapping over. The first two tasks are at a moderate intensity to answer the questions, this will allow the children to work out sums quickly and practise repetitively. After effective time with their partners and swapped, the children will be put into different groups and work on the same skills. The 5 minutes at the end of the lesson will be used to ensure the children tidy the classroom and put things back properly.

Curriculum coverage (range and skills)

Numeracy – Numeracy is a big part of this exercise in order to work out additional sums. Also to work out additional sums with gaps in them. The numeracy will range from 0-20 numbers for the foundation phase so it is not too complexed for them. Then gradually week by week build on this.

Teamwork – The teamwork skills are regular in these activities to ensure children help each other succeed in the groups and take turn to speak.

Communication – Communication to talk to teacher and group peers about the task. Communication throughout the teamwork phase is crucial that all peers understand the task. The starter activity when the teacher explains the task is also important so any queries can be answered.

Practical – Practical hands on work when playing bingo and putting balls in the correct hula hoops. Using objects and rolling the dices are key practical skills throughout this activity.

Literacy (LNF)

With this task it is important to listen to others and understand what they have to say because with some children who do not understand it may help someone else's understanding. The starter activity uses Literacy as it enables the children to read aloud the answer of the sum that is being worked on. Writing out the appropriate sum on the whiteboards are also a form of literacy that is used on this task.

Numeracy (LNF)

There is a range of literacy skills used in this lesson. The biggest numeracy used here is addition. Where the children must solve different sums of addition using different counting strategies in the starter activity and plenary, where the use of objects like soft balls, hula hoops and dices to count the amount. The math's bingo is also used to give an answer to the pupils for the sum to be solved, this requires problem solving and addition also.

DCF

Thinking

ESDGC

YCC

Learning Resource: MATHS BINGO

$5+5$	$9+2$	$4+1$	$3+2$
$4+3$	$2+5$	$2+1$	$3+6$
$5+7$	$1+1$	$3+5$	$9+4$

$5+5$	$9+2$	~~$4+1$~~	~~$3+2$~~
$4+3$	$2+5$	$2+1$	$3+6$
$5+7$	$1+1$	$3+5$	$9+4$

~~$5+5$~~	~~$9+2$~~	~~$4+1$~~	~~$3+2$~~
~~$4+3$~~	~~$2+5$~~	~~$2+1$~~	~~$3+6$~~
~~$5+7$~~	~~$1+1$~~	~~$3+5$~~	~~$9+4$~~

The image pictured on the left will be the main activity of the lesson which will be used for 30 minutes of the lesson. This will be called 'Maths Bingo'. For this lesson the aim will be addition for the Foundation Phase. After the starter activity, the teacher will then put the 22 pupils into groups of 4/5. each group will then have a whiteboard marker and 1 mini whiteboard with a grid like (left) with different sums on each of the whiteboards. the groups are split depending on the ability of maths, so each group will have a mix of different abilities, this is positive because it allows classmates to help each other get the right answer and improve their skills with numeracy. The aim of the activity is that the teacher will call out a number which will be the answer of a sum. For example: The teacher calls out the number 5:

The group must solve which sums on the grid add up to the number 5, when they have worked out the correct sums, they will cross out the numbers which add up to 5. from here the aim of the game will be to cross out all the relevant boxes, and the first team to cross out all the boxes can shout bingo to win the game. The teacher would then check over the correct answers and announce the winner. This activity can be repeated numerous times with different sums. this can also apply to times tables, subtraction and division methods of maths.

This activity is beneficial as it requires teamwork and communication to solve the correct answers at quick fire too. To develop this activity, you could include prizes for winning groups to keep the attention on the activity to win. You could also add more grids with sums to increase the duration of the task. the intensity of this exercise can also increase when the children have mastered the simple addition sums, the teacher is then able to introduce some harder sums, like a possible $10+4+7$, this would then require more thinking time for the pupils to complete the task. using numeracy in a game format will keep the children entertained and on task because if worksheets were used instead, the children may not stay on task.

Justification.

The lesson plan starts with a fair easy intransitive and a group discussion and explanation. In the starter activity the children will all gather around the hula hoops that are set up as a sum, the teacher will then add the soft balls into different hula hoops to demonstrate a sum and the children will have to place the answer of the sum in the final hula hoop. After the children are comfortable and are successful at doing this exercise, The gap in the sum will be one of the numbers that need to be added, this will test the children as they would then have to work out what would fit in the sum to get the answer that is already provided.

After the starter activity, the main activity will be Maths Bingo. This will take groups of four or five and each group of mixed abilities will have a mini whiteboard with a grid of different sums, all whiteboards will be different. The teacher will call out the number and the groups will have to work out what sum fits the answer, as explained in the resource above. This activity can increase intensity after the groups find the answers easy by including more complex sums or using higher numbers. Creating groups with mixed abilities can increase teamwork skills and communication. The game is repeated numerous times to allow different winning groups in the classroom.

The Plenary is the finishing activity of the lesson. Here the class will be put into pairs with a dice each. Each partner will have one minute to roll the dices for different sums and the partner will have to work out the sums. This will be a high intensity exercise that will increase the mental maths of the children. This will be repeated with different pairs constantly, this will give the children a chance to gain better mental maths. Through rolling the dice, it is likely that some of the sums may be the same indicating that this will be a repetitive process, by learning repetitively allows the children of the Foundation Phase to become more familiar with some of the sums and answer them more rapidly.

The lesson plan that I have created focuses mostly on the child's learning through play. This is a vital part of a child's education especially at the foundation phase at a young age. This is described as effective practise by Estyn (2019). Estyn (2019) describes Shirenewton Primary School to use Learning through Play effectively, they decide between themselves what they want to do and do it on their own. This emphasises the importance of my main and Plenary activity in the lesson plan, as the Maths Bingo allows the children in the group to work between themselves what they think the right answer is. The Plenary also supports this by using dices to play and work out sums from the roll of the dice. The learning through play allows the children to enjoy their learning rather than being taught all the time. The Curriculum for Wales: Foundation Phase Framework (2015) explain that it is important that children learn through first-

hand experiences so they can play with their ideas and solve problems where necessary. This implies that children are becoming more independent learners when learning through play either independently or as a group.

Planning this lesson plan allowed me to explore different ideas of what is the most effective way to get the classroom to understand and participate in the task, one way this was done was the information produced by Hwb (2008), this state:

“When planning play, it is important to ensure that account is taken of the different ways children play and learn. Throughout the Foundation Phase there should be opportunities for children to learn through:

1. Exploration
2. Using their senses to understand and learn about their environment/world
3. Activities that allow them to explore their emotions, feelings and experiences that allow children to discover things for themselves.

Alongside these activities there should be structured experiences that have specific planned outcomes to extend the children’s learning and development (Hwb, 2008)”.

This indicates the all the important factors that need to be thought about when considering a lesson plan. I completed the lesson plan by making it as playful as possible but with the specific outcome I wanted, which was the development of the class’ mathematical skills.

Especially the topic that my lesson plan covers, which is mathematics, it is important to use the best practise as it is considered one of the core subjects. CCEA (2019) explain that it is important to acquire maths skills at an early age and sorting, comparing and investigating is a vital part at the Foundation Phase. “Children should have the opportunity to develop their skills in mental mathematics during counting activities, by playing games and in their daily classroom routine (CCEA, 2019)”. This highlights the importance maths has at the Foundation Phase because it should be involved in every child’s “daily routine” at this stage. This lesson plan follows this effective practise because the children are using their mental maths in every activity done in the lesson. Not only do the children use this strategy but they are doing this through play which engages the children even more. Using the hula hoops with soft balls to highlight addition maths engages the Foundation Phase rather than getting them to watch the teacher explain on a whiteboard.

When designing a lesson plan, it is important to look at current best practise to understand how the children in the foundation phase will learn their maths the best, one way I recognised this was from ErwWales (2014).

Foundation Phase Mathematical Development Area of Learning					
Strands	Elements	Nursery	Reception	Year 1	Year 2
Using number skills	Use number facts and relationships	Children are able to:	Children are able to:	Children are able to:	Children are able to:
		listen to and join in with rhymes, songs, stories and games that have a mathematical theme ◊	recite a range of number rhymes and songs ◊		
		realise that anything can be counted, not just objects, e.g. claps, steps ◊			
		count reliably up to 5 objects	count reliably up to 10 objects	count reliably up to 20 objects	count sets of objects by grouping in 2s, 5s or 10s
		recite numbers from 0 to 10 forwards and backwards using songs and rhymes ◊	recite numbers up to 20, forwards and backwards, and from different starting points ◊	recite numbers up to 100, forwards and backwards and from different starting points ◊	recite numbers beyond 100, forwards and backwards and from different starting points ◊
		recognise numbers 0 to 5 and relate a number 0 to 5 to its respective quantity	read and write numbers to at least 10	read and write numbers to at least 20 forming and orientating them correctly ▲	read and write numbers to at least 100 ▲
		use mark making to represent numbers in play activities that can be interpreted and explained ◊			
		compare and order numbers to at least 5	compare and order numbers to at least 10	compare and order numbers to at least 20	compare and order 2-digit numbers
		demonstrate an understanding of one-to-one correspondence by matching pairs of objects or pictures	understand that zero means 'none' ◊	demonstrate an understanding of place value, e.g. one 10 and four units equal 14, up to at least 20 ◊	demonstrate an understanding of place value up to at least 100 ◊
			use number facts up to 5 ◊	use number facts within 10, i.e.: – doubling and halving, e.g. 4×4 – bonds of 10, e.g. $6 + 4$	use mental recall of number facts to 10 to derive other facts, i.e.: – doubling and halving, e.g. derive 40×40 from knowing 4×4 – bonds of 10, e.g. derive 60×40 from knowing 6×4

Key: Non-bold text: LNF statement Extended skill ▲ Area of Learning skill ◊

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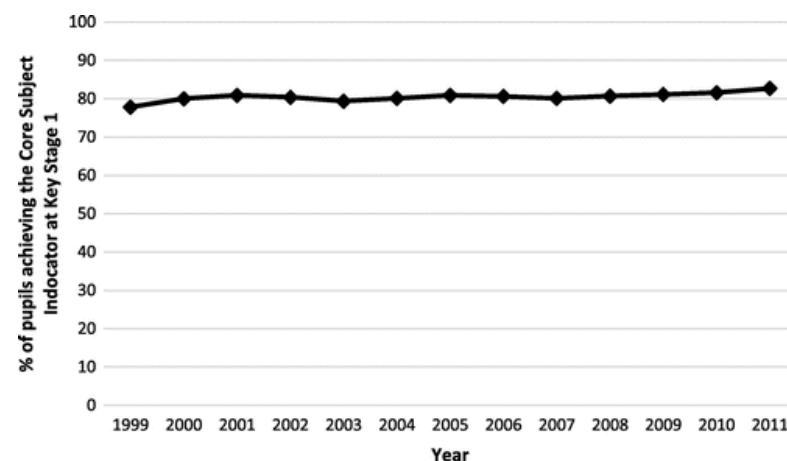
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<https://www.erw.wales/media/1097/141006-foundation-phase-mathematical-development-area-of-learning.pdf>

From this document that highlights the development of learning for the Foundation Phase, it is easy to gather the correct information to improve the maths skills of the Foundation Phase. The columns displaying Reception and Year 1 is the target group chosen. ErwWales (2014) explains that children of the reception age should count reliably up to 10 and read and write numbers from 0 to 10. The lesson plan I set hits the targets of what reception should be doing because they will be practising counting from 1-20 all of the activities and the reception will be writing down numbers in the main activity of Maths Bingo, meaning the lesson plan is improving the maths skills of the reception age to what targets they should be hitting.

As for the Year 1 age, they should be counting comfortably up to 20 and are able to recognise number bonds of 10. This exercise helps improve these skills for these ages because the children will be writing and reciting numbers up to 20 in all activities, especially in the Plenary when they are reciting numbers off the dices. The children of Year 1 will also be recognising number bonds of 10 when completing the bingo as the bonds of 10 appear regularly as they are designed to appear more than once on some of the cards to give certain groups a challenge not to cross off just one box at a time.

The lesson plan was set out to focus on learning through play as it is seen as the best way for children to learn in the Foundation Phase. Highlighted in the theory by John Dewey, children are more focused, engaged and creative when learning through play, (Skirton, 2009). Although this statement came from 2009, it is evident that learning through play is becoming a big part of the curriculum as Graham Donaldson will involve a large part of this in the Foundation Phase for the new curriculum in 2022 (Welsh Government, 2019). Chris Taylor can show that learning through play is making a big impact on children's education especially in the Foundation Phase:



<https://www.tandfonline-com.ezproxy.uwtsd.ac.uk/doi/full/10.1080/03054985.2016.1184872>

This diagram from Taylor (2016) is a clear indication of the rise in percentage of children achieving the core subject in Key Stage 1. This implies that the growth of recognition of learning through play and it is continuing to make an impact in the Foundation Phase. This could be one of the reasons behind Graham Donaldson's decision to make learning through play a big part of the curriculum in the Foundation Phase for 2022.

Although the content is vital for the Foundation Phase, the lesson plan itself is equally as important. The importance of a starter activity is to give the class a taster of what is to be expected in the lesson and prepare the children of what the lesson will consist of in a light intensity manner, (Fugii, 2016).

Fugii (2016) gives a diagram of how a lesson looks:

<https://link.springer.com/article/10.1007%2Fs11858-016-0770-3>

Fugii (2016) shows this diagram as a simplified idea of what a lesson looks like broken down, the first step is Goal Setting. This is important to determine what the teacher or practitioner wants to achieve throughout the lesson. My goal for this lesson plan was to develop the Foundation Phase of their mathematical skills. The second step would be to plan the lessons, at this stage I planned what sort of activities I wanted to use in the lesson. For the third step, I did some research. Here the practitioner would research into different possible ways in which the goal can be achieved. From this step, I could research different activities for the lesson parts to determine what suited best. The fourth step is more reflective. In this step, it is focused on what the pupils did well and what can be done to improve next time, this would also help the practitioner improve the lesson next time. The final step of the diagram is Reflection. This is practitioner based where they would analyse their lesson on what activities worked well and that can be used again. If any strategies used didn't work well or needed to be worked on, this can also be done. A process that can be helped for this step is a feedback form or feedback from the class on how well they enjoyed their lesson or activity. The class may also be able to do reflection, they can look back on themselves and see what they did well, how they can improve or what they can change for the next activity they do.

To conclude, it is vital that lesson planning is used throughout teaching especially in the Foundation Phase, it is also evident that learning through play is crucial in a child's education to develop in the Foundation Phase. Lesson planning is just as important to the lesson as the teacher because it allows them to try different strategies and activities and improve or adapt to the best learning possible for the pupils in the class.

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