Lesson plans for

PRIMARY
Mathematics

1 CLASS

2 TERM

Foreword

Our country's future lies in the education of our children. The Government of Sierra Leone is committed to doing whatever it takes to secure this future.

As Minister of Education, Science and Technology since 2007, I have worked every day to improve our country's education. We have faced challenges, not least the Ebola epidemic which as we all know hit our sector hard. The Government's response to this crisis – led by our President – showed first-hand how we acted decisively in the face of those challenges, to make things better than they were in the first place.

One great success in our response was the publication of the Accelerated Teaching Syllabi in August 2015. This gave teachers the tools they needed to make up for lost time whilst ensuring pupils received an adequate level of knowledge across each part of the curriculum. The Accelerated Teaching syllabi also provided the pedagogical resource and impetus for the successful national radio and TV teaching programs during the Ebola epidemic.
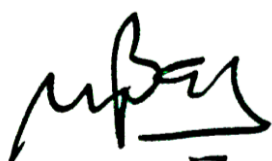
It is now time to build on this success. I am pleased to issue new lesson plans across all primary and JSS school grades in Language Arts and Mathematics. These plans give teachers the support they need to cover each element of the national curriculum. In total, we are producing 2,700 lesson plans – one for each lesson, in each term, in each year for each class. This is a remarkable achievement in a matter of months.

These plans have been written by experienced Sierra Leonean educators together with international experts. They have been reviewed by officials of my Ministry to ensure they meet the specific needs of the Sierra Leonean population. They provide step-by-step guidance for each learning outcome, using a range of recognised techniques to deliver the best teaching.

I call on all teachers and heads of schools across the country to make best use of these materials. We are supporting our teachers through a detailed training programme designed specifically for these new plans. It is really important that these Lesson Plans are used, together with any other materials you may have.

This is just the start of education transformation in Sierra Leone. I am committed to continue to strive for the changes that will make our country stronger.

I want to thank our partners for their continued support. Finally, I also want to thank you – the teachers of our country – for your hard work in securing our future.

Dr. Minkailu Bah

Minister of Education, Science and Technology

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to the Lesson Plan Manual

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These lesson plans are based on the National Curriculum
and meet the requirements established
by the Ministry of Education, Science and Technology.

1   The lesson plans will not take the whole term, so use spare time to review material or prepare for exams

2   Teachers can use other textbooks alongside or instead of these lesson plans.

3   Read the lesson plan before you start the lesson. Look ahead to the next lesson, and see if you need to tell pupils to bring materials for next time.

Learning outcomes

4   Make sure you understand the learning outcomes, and have teaching aids and other preparation ready – each lesson plan shows these using the symbols on the right.

Teaching aids

5   Quickly review what you taught last time before starting each lesson.

Preparation

6   Follow the suggested time allocations for each part of the lesson. If time permits, extend practice with additional work.

7   Lesson plans have a mix of activities for the whole class and for individuals or in pairs.

8   Use the board and other visual aids as you teach.

9   Interact with all students in the class – including the quiet ones.

10   Congratulate pupils when they get questions right! Offer solutions when they don't, and thank them for trying.

Lesson Title: Using Rhymes, Songs and Games to Count Numbers Up to 100	**Theme:** Measure and Estimation - Time	
Lesson Number: M-01-061	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use rhymes, songs, and play games about numbers up to 100.	**Teaching Aids** The songs 'Five Little Monkeys' and 'One Banana, Two Banana' at the end of the plan	**Preparation** Write the songs 'Five Little Monkeys' and 'One Banana, Two Banana', at the end of the plan, on the board.

Opening *(1 minute)*

1. **Say:** In the previous lesson we used the number line to count to 5s.
2. **Say:** Today we are going to learn some songs and rhymes to help us count.

Introduction to the New Material *(5 minutes)*

1. **Say:** The first song I want to share with you is called Five Little Monkeys.
2. Read Five Little Monkeys.
3. **Ask:** Are the numbers going up or down in the song? (Answer: down)

Guided Practice *(25 minutes)*

1. **Say:** Now I will say a line and you will repeat.
2. Lead the pupils in read and repeat for the first 2 stanzas of the song.
3. Starting with the third stanza, have them say the song with you.
4. **Say:** Now I will teach you another rhyme.
5. Read 'One Banana Two Banana'.
6. **Ask:** Are the numbers going up or down? (Answer: up)
7. **Say:** Now I will say a line and you will repeat.
8. Lead the pupils in read and repeat one time through.
9. Then have the pupils say the rhyme with you.

Independent Practice *(0 minutes)*

Closing *(4 minutes)*

1. **Ask:** Is there anyone who would like to share a rhyme or song about numbers with the class?
2. **Say:** In the next lesson we will learn how to count up to 100 forward and backward.

[FIVE LITTLE MONKEYS]

Five little monkeys jumping on the bed
One fell off and bumped his head
Mama called the doctor and the doctor said:
'No more monkeys jumping on the bed!'

Four little monkeys jumping on the bed
One fell off and bumped his head
Mama called the doctor and the doctor said:
'No more monkeys jumping on the bed!'

Three little monkeys jumping on the bed
One fell off and bumped his head
Mama called the doctor and the doctor said:
'No more monkeys jumping on the bed!'

Two little monkeys jumping on the bed
One fell off and bumped his head
Mama called the doctor and the doctor said:
'No more monkeys jumping on the bed!'

One little monkey jumping on the bed
He fell off and bumped his head
Mama called the doctor and the doctor said:
'No more monkeys jumping on the bed!'

Now there's no little monkeys jumping on the bed.

[ONE BANANA, TWO BANANA]

One banana, two bananas,

Three bananas, more

Four bananas, five bananas,

Six bananas, more.

Seven bananas, eight bananas,

Nine bananas, more

Ten yellow bananas!

Lesson Title: Grouping Objects in 10s	**Theme:** Numbers and Numeration – Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-62	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to group objects in 10s.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather enough counters for the class.

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt some songs and rhymes to count numbers up to 100.
2. **Say:** In today's lesson we will learn how to put objects in groups of 10 to count up to 100.

Introduction to the New Material *(12 minutes)*

1. **Say:** We are going to learn how to use tally marks to record objects.
2. **Say:** I have a handful of counters here on the table. In order to count the number I have and not lose count, I will use tally marks.
3. **Say:** First I will teach you how to keep track with tally marks. 1 tally mark represents 1 object.
4. **Say:** Tally marks are easily counted when they are in sets of 5.
5. **Say:** To make a set of 5 tally marks, you write 4 lines and then draw a diagonal line to make number 5.
6. Demonstrate for the students by drawing 4 lines and then a diagonal line across them.
7. **Say:** Tally marks are not always in sets of 5. Sometimes they are alone or with other tally marks.
8. Write the following: **3 III   4 IIII   2 II**
9. Explain that if you count the number of lines you will get the same number as the number listed.
10. Draw the tally chart on the board:

1	I	6	IIII I
2	II	7	IIII II
3	III	8	IIII III
4	IIII	9	IIII IIII
5	IIII	10	IIII IIII

11. **Say:** This is what tally marks look like up to 10. You will see that 10 is 2 sets of 5.
12. **Say:** I will now use these tally marks to count the counters I have here.
13. Move 5 counters into a pile.
14. **Say:** 1, 2, 3, 4, 5.
15. Write a set of 5 tally marks
16. Move 5 more counters into the same pile.
17. **Say:** 6, 7, 8, 9, 10.
18. Write a set of 5 tally marks.
19. **Say:** That is 10 altogether. I have a pile of 10 here and will now start a new pile.
20. Move 5 counters into a pile.
21. **Say:** 1, 2, 3, 4, 5.
22. Write a set of 5 tally marks.
23. Move 5 more counters into the same pile.

24. **Say:** 6, 7, 8, 9, 10.
25. Write a set of 5 tally marks.
26. **Say:** That is 10 more. Now I have 2 piles of 10.
27. **Say:** 2 piles of 10 make 20.
28. **Say:** I can keep adding more.
29. Move 5 counters into a new pile.
30. **Say:** 1, 2, 3, 4, 5.
31. Write a set of 5 tally marks
32. Move 5 more counters into the same pile.
33. **Say:** 6, 7, 8, 9, 10.
34. Write a set of 5 tally marks.
35. **Say:** That is 10 more. Now I have 3 piles of 10.
36. **Say:** 3 piles of 10 make 30.

Guided Practice *(6 minutes)*

1. **Say:** Now we can continue this together.
2. **Ask:** What comes next? (Answer: Count 5 and make 5 tally marks.)
3. **Say:** I will count to 5 and make a set of tally marks.
4. **Ask:** What comes next? (Answer: Count 5 and make another 5 tally marks.)
5. **Say:** I have counted 5 more and made another set of tally marks.
6. **Ask:** How many do I have now? (Answer: 10)
7. **Ask:** If I add this set of 10 to the number I had before, what is the total number I have? (Answer: 40).
8. **Say:** You will now work on this with a partner.

Independent Practice *(15 minutes)*

1. Give a handful of counters to each pair.
2. **Say:** Work with a partner to count the number of counters you have between you.
3. **Say:** Use the tally marks to help you keep track of how many you have.

Closing *(1 minute)*

1. **Say:** Today we learnt how to group objects in 10s.
2. **Say:** In the next lesson we will learn how to count to 100 forward and backward.

Lesson Title: Counting Up to 100 Forward and Backward	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-063	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to count up to 100 forward and backward using the number line.	**Teaching Aids** 1. 0 – 100 number line at the end of the plan. 2. 100 chart at the end of the plan.	**Preparation** 1. Draw a 0 – 100 number line, at the end of the plan, on the board. 2. Draw a 100 chart, at the end of the plan, on the board.

Opening *(2 minutes)*

1. Lead class in counting from 1 to 100.
2. **Say:** Today you will be learning to count from 1 to 100 forward and backward.
3. **Say:** We will use the 100 chart and the number line to help us.
4. Write the number 1 and the number 100 on the board.
5. Draw an arrow from the number 1 to the number 100.
6. Show pupils the number line on the board.
7. **Say:** You will be practising the names of numbers up to 100.

Introduction to the New Material *(10 minutes)*

1. Point to the 100 chart.
2. **Say:** Each number has a name.
3. **Say:** Numbers go in order and have a pattern.
4. Point to the numbers that all have 0s at the end.
5. **Say:** These numbers all have 0 at the end: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
6. Point to the numbers that all have 3s at the end.
7. **Say:** These numbers all have 3 at the end: 3, 13, 23, 33, 43, 53, 63, 73, 83, 93.
8. Point to all the numbers that have 7s at the end.
9. **Say:** These numbers all have 7 at the end: 7, 17, 27, 37, 47, 57, 67, 77, 87, 97.
10. **Say:** We can count from any number up to 100, and we can count down from any number to 1.
11. Point to the number line.
12. **Say:** Our number line shows us that as we go from left to right the numbers go higher: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.
13. **Say:** Our number line also shows us that as we go from right to left the numbers go lower: 100, 90, 80, 70, 60, 50, 40, 30, 20, 10, 0.

Guided Practice *(10 minutes)*

1. **Say:** Now we will practise saying the numbers together.
2. Point to number 11. **Say:** 11. **Say:** Now repeat after me.
3. Point to number 12. **Say:** 12.

4. Continue to say and have students repeat until you have reached the number 100.
5. **Say:** Now we will learn to count backwards from 100 to 1 by 10s.
6. Begin by pointing to the number 100 on the number line.
7. **Say:** We will count backwards from 100 to 0 together by 10s. Say the number as I point to it.
8. Point to the numbers and say them aloud: 100, 90, 80, 70, 60, 50, 40, 30, 20, 10, 0.
9. **Say:** You can also count backwards on the 100 chart.
10. Point to 50 on the 100 chart.
11. **Say:** Repeat after me. Count backwards from 50 to 40.
12. Point to 80 on the 100-chart.
13. **Say:** Repeat after me. Count backwards from 80 to 70.

Independent Practice *(12 minutes)*

1. **Say:** Copy the 100 chart in your book.
2. **Say:** In pairs, use the 100-chart to say the name of each number. Practise counting the numbers forward and backward together.

Closing *(1 minute)*

1. **Say:** Today we learnt how to count forward and backward from 1 to 100.
2. **Say:** In the next lesson we will learn how to read and write numbers up to 100 in numerals.

[100 CHART]

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

[0-100 NUMBER LINE]
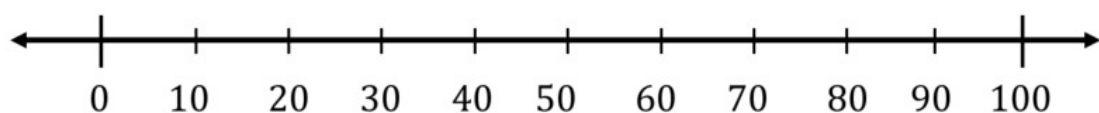
Lesson Title: Reading and Writing Numbers Up to 100	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-064	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to write and read numbers up to 100.		**Teaching Aids** None		**Preparation** None

Opening *(2 minutes)*

1. **Say:** In the previous lessons we learnt how to count forward and backward up to 100.
2. **Say:** Today we will learn how to read and write numbers up to 100 in numbers.

Introduction to the New Material *(10 minutes)*

1. **Say:** Repeat after me.
2. **Say:** 10.
3. **Ask:** Who would like to come to the board and write the number that corresponds to the word ten?
4. **Say:** Repeat after me.
5. **Say:** 20.
6. **Ask:** Who would like to come to the board and write the number that corresponds to the word twenty?
7. **Say:** Repeat after me.
8. **Say:** 30
9. **Ask:** Who would like to come to the board and write the number that corresponds to the word thirty?
10. Continue this process through 100.
11. **Say:** Now we will try something a little harder.
12. **Say:** 25
13. **Say:** The first word tells me what digit to write first.
14. Write: 2
15. **Say:** The second word tells me what to write next.
16. Write: 5
17. **Say:** The two numbers written together make 25.
18. **Say:** Let's try another one.
19. **Say:** 47
20. **Say:** The first word tells me what digit to write first.
21. Write: 4
22. Explain that the second word tells me what to write next.
23. Write: 7
24. **Say:** The two numbers written together make 47.

Guided Practice *(10 minutes)*

1. **Say:** Write 48 on your paper.
2. Give the pupils a minute to write the number.
3. **Say:** The first word tells us what digit to write first.
4. Write: 4
5. **Say:** The second word tells us what to write next.
6. Write: 8
7. **Say:** The two numbers written together make 48.
8. **Say:** Read this number with me: 48.
9. **Say:** Write 36 on your paper.
10. Give the pupils a minute to write the number.
11. **Say:** The first word tells us what digit to write first.
12. Write: 3
13. **Say:** The second word tells us what to write next.
14. Write: 6
15. **Say:** The two numbers written together make 36.
16. **Say:** Read this number with me: 36.
17. **Say:** Write 92 on your paper.
18. Give the pupils a minute to write the number.
19. **Say:** The first word tells us what digit to write first.
20. Write: 9
21. **Say:** The second word tells us what to write next.
22. Write: 2
23. **Say:** The two numbers written together make 92.
24. **Say:** Read this number with me: 92.

Independent Practice *(13 minutes)*

1. Write:

34	67	40	55	89	17
24	76	39	20	61	82

2. **Say:** Write these numbers on your paper. Work with a partner and take turns saying the numbers aloud.

Closing *(1 minute)*

1. **Say:** Today we learnt how to read and write numbers up to 100.
2. **Say:** In the next lesson we will learn how to use the number chart to identify numbers up to 100.

Lesson Title: Locating Numbers Up to 100 on the 100 Chart	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-065	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to locate numbers up to 100 on the 100 chart.	**Teaching Aids** 100 chart at the end of the plan.	**Preparation** Draw a 100 chart, at the end of the plan, on the board.

Opening *(2 minutes)*

1. **Say:** In the previous lesson we learnt how to read and write numbers up to 100 in numerals.
2. **Say:** Today we will be learning how to locate numbers on the 100 chart.

Introduction to the New Material *(10 minutes)*

1. Point to the 100 chart.
2. **Say:** You will remember the 100 chart from earlier lessons.
3. **Say:** Each number has a name.
4. **Say:** Numbers go in order and have a pattern.
5. Point to the numbers that all have 0s at the end.
6. **Say:** These numbers all have 0s at the end.
7. Point to the numbers that all have 3s at the end.
8. **Say:** These numbers all have 3s at the end.
9. Point to all the numbers that have 7s at the end.
10. **Say:** These numbers all have 7s at the end.
11. Write: 62.
12. **Say:** I am going to look for 62 on the 100 chart.
13. Point to 62.
14. **Say:** Here is 62. 61 comes before 62. 63 comes after 62.
15. Write: 61   62   63
16. Write: 44.
17. **Say:** I am going to look for 44 on the 100-chart.
18. Point to 44.
19. **Say:** Here is 44. 43 comes before 44. 45 comes after 44.
20. Write: 43   44   45

Guided Practice *(10 minutes)*

1. **Say:** Let's try some together.
2. Write: 37
3. **Ask:** What number comes before 37? (Answer: 36)
4. **Ask:** What number comes after 37? (Answer: 38)

5. Write: 36   37   38
6. Write: 74
7. **Ask:** What number comes before 74? (Answer: 73)
8. **Ask:** What number comes after 74? (Answer: 75)
9. Write: 73   74   75
10. Write: 53
11. **Ask:** What number comes before 53? (Answer: 52)
12. **Ask:** What number comes after 53? (Answer: 54)
13. Write: 52   53   54
14. Write: 99
15. **Ask:** What number comes before 99? (Answer: 98)
16. **Ask:** What number comes after 99? (Answer: 100)
17. Write: 98   99   100

Independent Practice *(13 minutes)*

1. Write: 35   67   40   56   89   18
             24   77   39   20   62   82
2. **Say:** Write these numbers on your paper. Locate the number on the 100 chart and write the numbers that come before and after the number.
3. Give pupils 10 minutes to work, then invite volunteers to write the answers on the board.

Closing *(1 minute)*

1. **Say:** Today we learnt how to locate numbers up to 100 on the 100 chart.
2. **Say:** In the next lesson we will learn how to order numbers up to 100.

[100 CHART]

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Lesson Title: Locating Numbers Up to 100 on the Number Line	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-066	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to locate numbers up to 100 on the number line.		**Teaching Aids** 1. A number line. 2. Number Cards at the end of the plan.		**Preparation** 1. Draw a line across the front of the classroom, on the ground, using chalk or tape. 2. Make large number cards on individual pieces of paper.

Opening *(2 minutes)*

1. Draw a line across the board with an arrow at both ends:
2. **Ask:** What is this?
3. Once they have said 'a line', **Say:** A line goes on forever in both directions, which is why there are arrows at both ends.
4. **Say:** Today you will be learning how to locate numbers on a number line.

Introduction to the New Material *(8 minutes)*

1. On the line across the board, divide the line into 10 sections with horizontal lines:
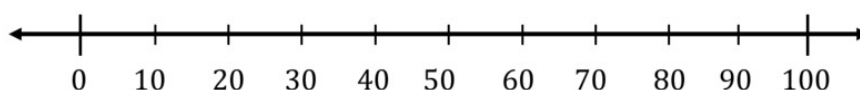
2. **Say:** Like the 100-chart, the smaller numbers on the left become larger as you move right.
3. Write the numbers 58, 72 and 93 on the board. Record the first number on the number line:
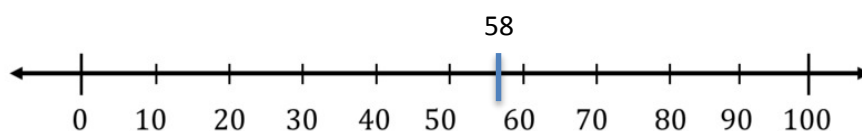
4. **Say:** I have placed the number 58 just to the left of the 60 because 58 on the 100 chart is just less than 60 and smaller numbers go to the left.
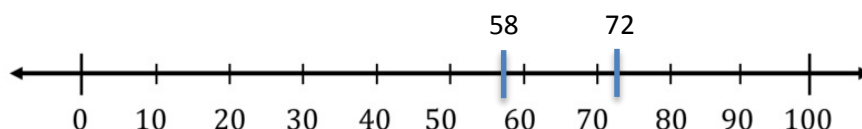
5. **Say:** I have placed the 72 to the right of the 70 because 72 is just 2 more than 70 and larger numbers go to the right.
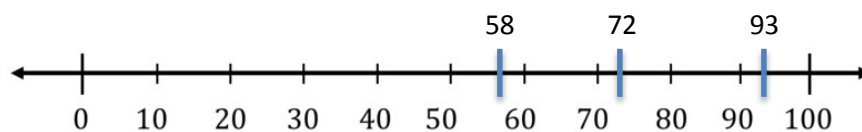
6. **Say:** I have placed the 93 to the right of the 90 because it is 3 more than 90 and larger numbers go to the right.

Guided Practice *(15 minutes)*

1. Call 10 pupils to the front of the classroom. Give each of them a multiple 10 number card.
2. Help them arrange themselves correctly on the number line you have drawn across the classroom with the lowest number on the left and highest number on the right.
3. They should hold their number where all pupils can see them.
4. Give the other number cards to 5 other pupils.
5. **Say:** If a number has a 1, 2 or 3 at the end, it will need to be closer to the multiple of 10 that is less than their number.
6. **Say:** If a number has a 4, 5 or 6 at the end, it will need to be in the middle between the multiples of 10.
7. **Say:** If a number has a 7, 8 or 9 at the end, it will need to be closer to the multiple of 10 that is more than their number.
8. Ask the first pupil to read the number on their card aloud and show the class.
9. Help the pupil find their place on the number line and clearly explain to the class why the pupil is in that place (in relation to the multiple of 10).
10. Ask the other pupils to find their place on the number line and check with the person next to them to make sure they are in the correct place.
11. If any pupils have difficulty finding their place, they can ask their classmates for help.
12. Once all pupils are on the number line, read through all the numbers to ensure everyone is in the correct place. Rearrange pupils if they are in the incorrect place and explain to the class why you are moving them.

Independent Practice *(8 minutes)*

1. Point to the number line you created on the board and **Say:** Create the same line in your book.
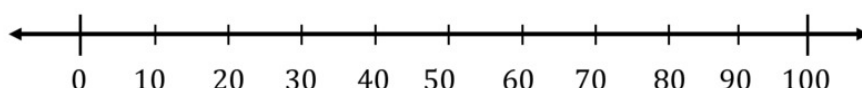
2. Give the pupils the following numbers and **Say:** Mark the numbers on your number line: 5, 18, 42, 79, 95

Closing *(2 minutes)*

1. Point to your number line on the board and **Ask:** Are the lower numbers on the right side or on the left side of the line? (Answer: On the left.)
2. **Ask:** Do the numbers go up or down as you go from left to right? (Answer: They go up.)

[NUMBER CARDS]

0	10	20	30	40	50	60	70
80	90	100	41	97	23	55	19

Lesson Title: Comparing Numbers Up to 100	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-067	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to compare numbers up to 100 using the number line and 100 chart.		**Teaching Aids** 1. 100 chart at the end of the plan. 2. 0-100 number line at the end of the plan.		**Preparation** 1. Draw a 100 chart, at the end of the plan, on the board. 2. Draw a 0-100 number line, at the end of the plan, on the board.

Opening *(2 minutes)*

1. **Say:** In the previous lessons we learnt how to locate numbers up to 100 using the number line and 100 chart.
2. **Say:** Today we will be comparing numbers using the number line and 100 chart.

Introduction to the New Material *(10 minutes)*

1. Point to the 100 chart.
2. **Say:** The 100 chart goes from smallest at the top to largest at the bottom.
3. Point from the top to the bottom.
4. **Say:** The 100 chart also goes from smallest to largest going from left to right.
5. Write: 37   47 **Say:** I can compare the numbers 37 and 47 first by using the 100 chart.
6. **Say:** 37 is closer to the top than 47. That means that 37 is less than 47.
7. **Say:** I can also compare the numbers 37 and 47 by using the number line.
8. **Say:** As you will remember, as you go to the right on the number line, the numbers get higher.
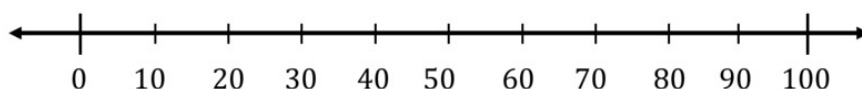
9. Point to where 37 is on the number line. **Say:** Here is 37 on the number line.
10. Point to where 47 is on the number line. **Say:** Here is 47 on the number line.
11. **Say:** As you can see, 47 is to the right of 37. Therefore, 47 is greater than 37.
12. Write: 25   83. **Say:** I can compare the numbers 25 and 83 first by using the 100 chart.
13. **Say:** 83 is closer to the bottom of the 100 chart, and 25 is towards the top. That means that 25 is less than 83.
14. **Say:** I can also compare the numbers 25 and 83 by using the number line.
15. **Say:** As you will remember, as you go to the right on the number line, the numbers get higher.
16. Point to where 25 is on the number line. **Say:** Here is 25 on the number line.
17. Point to where 83 is on the number line. **Say:** Here is 83 on the number line.
18. **Say:** As you can see, 83 is to the right of 25. Therefore, 83 is greater than 25.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some together.
2. Write: 64   98 **Ask:** Using the 100 chart, which number is least? (Answer: 64)
3. Write: 29   77 **Ask:** Using the number line, which number is greatest? (Answer: 77)
4. Write: 15   59 **Ask:** Using the 100 chart, which number is greatest? (Answer: 59)
5. Write: 43   62 **Ask:** Using the number line, which number is least? (Answer: 43)
6. Write: 52   78 **Ask:** Using the 100 chart, which number is least? (Answer: 52)
7. Write: 19   97 **Ask:** Using the number line, which number is greatest? (Answer: 97)
8. Write: 65   62 **Ask:** Using the 100 chart, which number is greatest? (Answer: 65)
9. Write: 48   32 **Ask:** Using the number line, which number is least? (Answer: 32)

Independent Practice *(13 minutes)*

1. Write these sets of numbers on the board:

35, 67	56, 89	43, 38
24, 39	62, 67	12, 98

2. **Say:** Write these numbers on your paper. Use the number line and the 100 chart to compare the 2 numbers. Circle the number that is greater.

Closing *(1 minute)*

1. **Say:** Today we learnt things how to compare numbers up to 100.
2. **Say:** In the next lesson we will learn how to order numbers up to 100 using the 100 chart.

[100 CHART]   *[0-100 NUMBER LINE]*

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

0   10   20   30   40   50   60   70   80   90   100

| **Lesson Title:** Order Numbers Up to 100 Using the 100 Chart	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-068	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to order numbers up to 100 using the 100 chart.	**Teaching Aids** 100 chart at the end of the plan.	**Preparation** Draw a 100 chart, at the end of the plan, on the board.

Opening *(2 minutes)*

1. **Say:** In the previous lessons we learnt how to compare numbers up to 100 using the number line and 100 chart.
2. **Say:** Today we will be learning how to order numbers using the number chart.

Introduction to the New Material *(10 minutes)*

1. Point to the 100 chart.
2. **Say:** Today we will be using the 100 chart to help us put numbers in order from smallest to greatest.
3. Write: 67   43   89
4. **Say:** The 100 chart goes from smallest at the top to greatest at the bottom.
5. Point from the top to the bottom.
6. **Say:** The 100 chart also goes from smallest to greatest going from left to right.
7. **Say:** You can see here on the left the number 22 and as I go right, the numbers go up: 23, 24, 25, 26.
8. **Say:** The 3 numbers I've written on the board can be put in order by finding them on the 100 chart.
9. **Say:** The number closest to the top is the smallest and the number closest to the bottom is the greatest.
10. Point to the 43 on the 100 chart. **Say:** Here is 43
11. Point to the 67 **Say:** Here is 67. 67 is lower on the chart. That means 67 is greater than 43.
12. Point to the 89 **Say:** Here is 89. 89 is lower on the chart. That means 89 is greater than 67.
13. Write: 43   67   89
14. **Say:** Here are the numbers written in order from smallest to greatest.
15. Write: 35   32   37
16. **Say:** As I said earlier, the numbers go from smallest to greatest as you go from left to right.
17. Point to the 35 on the 100 chart. **Say:** Here is 35. 35 is to the right of 32. That means 35 is greater than 32.
18. Point to the 37 **Say:** Here is 37. 37 is to the right of 35. That means 37 is greater than 35.
19. Write: 32   35   37
20. **Say:** Here are the numbers written in order from smallest to greatest.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some together. Write: 44   98   25
2. **Ask:** What number is the smallest? (Answer: 25)
3. **Ask:** What number is the greatest? (Answer: 98)
4. **Ask:** What order do the numbers go in from smallest to greatest? (Answer: 25, 44, 98)
5. Write: 32   29   27
6. **Ask:** What number is the smallest? (Answer: 27)
7. **Ask:** What number is the greatest? (Answer: 32)
8. **Ask:** What order do the numbers go in from smallest to greatest? (Answer: 27, 29, 32)
9. Write: 55   59   64
10. **Ask:** What number is the smallest? (Answer: 55)
11. **Ask:** What number is the greatest? (Answer: 64)
12. **Ask:** What order do the numbers go in from smallest to greatest? (Answer: 55, 59, 64)

Independent Practice *(13 minutes)*

1. Write these sets of numbers on the board:
35, 67, 40 (Answer: 35, 40, 67)	56, 89, 18 (Answer: 18, 56, 89)
43, 83, 28 (Answer: 28, 43, 83)	24, 77, 39 (Answer: 24, 39, 77)
20, 62, 82 (Answer: 20, 62, 82)	12, 96, 75 (Answer: 12, 75, 96)
2. **Say:** Write these numbers on your paper. Locate the numbers on the 100 chart and write the numbers in the correct order from smallest to greatest.
3. Give pupils 11 minutes to work, then invite volunteers to write the correct orders on the board.
4. **Say:** Check your answers. Show me with your fingers how many sets of numbers you put in the correct order.

Closing *(1 minute)*

1. **Say:** Today we learnt how to order numbers from smallest to greatest by using the 100 chart.
2. **Say:** In the next lesson we will learn how to order numbers using the number line.

[100 CHART]

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Lesson Title: Ordering Numbers Up to 100 Using the Number Line	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 10	
Lesson Number: M-01-069	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to order numbers up to 100 using the number line.	**Teaching Aids** 1 – 100 number line at the end of the plan.	**Preparation** Draw a 1 – 100 number line, at the end of the plan, on the board.

Opening *(2 minutes)*

1. **Say:** Raise your hand and tell me how many people live in your home.
2. As pupils answer, write their answers in numerals on the board.
3. **Say:** Today we will be using the number line to determine which numbers are bigger and which numbers are smaller.

Introduction to the New Material *(6 minutes)*

1. Point to the number line and **Say:** We have used the number line in previous lessons to help us count in 5s and to count forward and backward.
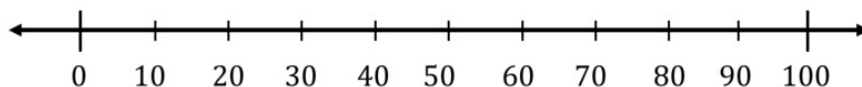
2. **Say:** The number line can be used to help us order numbers. Ordering numbers means placing them from smallest to largest.
3. **Say:** When we go from left to right on the number line, the numbers get larger.
4. Point to number 5 on the number line.
5. **Say:** Here is number 5 on the number line.
6. Point to number 10 on the number line.
7. **Say:** Here is number 10 on the number line. 10 is 5 + 5. We know that 10 is bigger than 5.
8. Point to number 20 on the number line.
9. **Say:** Here is number 20 on the number line. 20 is 10 + 10. We know that 20 is bigger than 10.
10. **Say:** As you can see, the further I go right, the larger the numbers get.

Guided Practice *(10 minutes)*

1. **Say:** Now we will order numbers together.
2. Write these numbers on the board: 78, 45, 12
3. **Say:** I have written three numbers on the board: 78, 45 and 12.
4. **Say:** Now we will use the number line to put them in order.
5. **Ask:** Who would like to locate the number 78 on the number line?
6. Call on a pupil with hand raised to place a dot on the number line near where 78 should be.
7. **Say:** 78 is less than 80, but more than 75, which is halfway between 70 and 80.

8. **Ask:** Who would like to locate the number 45 on the number line?
9. Call on a pupil with hand raised to place a dot on the number line near where 45 should be.
10. **Say:** 45 is halfway between 40 and 50.
11. **Ask:** Who would like to locate the number 12 on the number line?
12. Call on a pupil with hand raised to place a dot on the number line near where 12 should be.
13. **Say:** 12 is just higher than 10, but lower than 15 which is halfway between 10 and 20.
14. **Say:** Now that we have located all 3 numbers on the number line, we can put them in order from smallest to largest.
15. **Say:** We know that the smaller numbers are on the left and they get larger as we go right.
16. **Ask:** What is the smallest number? (Answer: 12)
17. **Say:** 12 is the smallest number.
18. Write 12 on the board.
19. **Ask:** Which number is the smallest out of the two numbers left? (Answer: 45)
20. **Say:** 45 is the next number in the order from smallest to largest.
21. Write 45 on the board to the right of 12:   12   45
22. **Say:** That leaves us with 78, which is the largest number of the three numbers.
23. Write 78 to the right of 45:   12   45   78
24. **Say:** Now our numbers are in order from smallest to largest.

Independent Practice *(15 minutes)*

1. **Say:** Now it is your turn to work on your own.
2. Point to the number line you created on the board and **Say:** Create the same line on your paper.
3. Write these number sets on the board:

    5, 42, 18 (Answer: 5, 18, 42)   79, 95, 32 (Answer: 32, 79, 95)

    86, 28, 40 (Answer: 28, 40, 86)   66, 59, 3 (Answer: 3, 59, 66)

4. **Say:** Use the number line to locate all the numbers in a number set. Each number set has 3 numbers. **Say:** Once you have located the numbers, write them in the correct order on your paper from smallest to largest.
5. Give pupils 13 minutes to work, then invite volunteers to write the answers on the board.
6. **Say:** Check your answers. Show me with your fingers how many sets you ordered correctly.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to order numbers from smallest to largest using the number line.
2. **Say:** In the next lesson we will be using numbers to tell stories.

[0-100 NUMBER LINE]
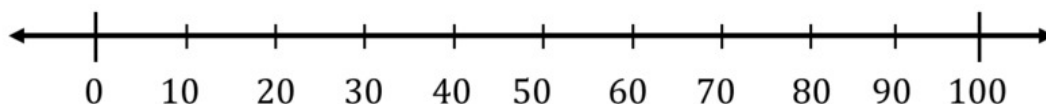
Lesson Title: Making Up Stories for Numbers Up to 100	**Theme:** Numbers and Numeration – Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-070	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to invent and tell a story using numbers up to 100.		**Teaching Aids** The 'Number Story' at the end of the plan.		**Preparation** Write the 'Number Story', at the end of the plan, on the board.

Opening *(1 minute)*

1. **Say:** We have been learning about numbers up to 100 and how to compare them and put them in the correct order.
2. **Say:** Today we are going to make up stories about numbers.

Introduction to the New Material *(5 minutes)*

1. **Say:** I am going to share a story about numbers.
2. **Say:** When you hear a number, clap your hands.
3. Read the 'Number Story', emphasising the numbers as you read.

Guided Practice *(0 minutes)*

Independent Practice *(19 minutes)*

1. **Say:** You are now going to work with a partner to make up a story about numbers up to 100.
2. **Say:** Take turns adding to the story.
3. **Say:** When your partner says a number, clap your hands.

Closing *(10 minutes)*

1. **Ask:** Who would like to share their number stories with the class?
2. Call on pairs of pupils to tell their stories to the class.

[NUMBER STORY]

One day, **2** boys were walking home from school. All of a sudden, **3** big hippos came running towards them! The **2** boys turned and ran in the other direction until their legs were too tired to walk any more. So they hid behind **1** big rock and peeked to see if the **3** hippos had caught up. They didn't see the **3** hippos, but they decided they couldn't take a chance. The **2** boys continued walking down the road away from the **3** hippos, until they reached **6** big tall trees. They sat down under **1** of the trees

in the shade. They looked up into the tree and saw birds everywhere. They began counting the birds and stopped once they reached **50**. All of a sudden, butterflies began to surround the boys. They counted the butterflies as they landed on their hands. **1**, **2**, **3**, **4**, **5**, **6**, **7**, **8**, **9**, **10**. **10** butterflies. After **45** minutes sitting under the tree they decided it was safe to walk home. The **2** boys quickly walked home, watching carefully for the **3** hippos, but they never did see them again.

Lesson Title: Counting Objects Up to 50 Outside the Classroom	**Theme:** Numbers and Numeration – Knowing and Understanding Numbers Up to 100	
Lesson Number: M-01-071	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to: 1. Identify and count up to 50 objects outside the classroom. 2. Record the number of objects drawn using numbers up to 50.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In our previous lesson we invented stories about numbers.
2. **Say:** In today's lesson we will go on a hunt outside the classroom and draw objects we see.

Introduction to the New Material *(8 minutes)*

1. **Say:** As you will also remember from a previous lesson, we used tally marks to record the number of objects.
2. **Say:** Let's begin by reviewing tally marks.
3. **Say:** Tally marks are easily counted when they are in sets of 5.
4. **Say:** To make a set of 5 tally marks, you write 4 lines and then draw a diagonal line to make number 5.
5. Demonstrate for the students by drawing 4 lines and then a diagonal line across them.
6. **Say:** Tally marks are not always in sets of 5. Sometimes they are alone or with other tally marks.
7. Write the following: **3 III   4 IIII   2 II**
8. Explain that if you count the number of lines you will get the same number as the number listed.
9. Draw tally chart on the board.

1	I	6	ЖІ
2	II	7	ЖІІ
3	III	8	ЖІІІ
4	IIII	9	ЖІІІІ
5	Ж	10	ЖЖ

Guided Practice *(12 minutes)*

1. **Say:** You are now going to go outside the classroom and draw as many objects as you can in the time I give you.
2. **Say:** Stay where I can see you and do not go in any other classrooms. I will give you my signal when it is time to come in.
3. Give the pupils 10 minutes outside the classroom to draw objects.

Independent Practice *(12 minutes)*

1. **Say:** Now that you have drawn items you saw outside the classroom, it is time for you to count the number of items you drew.
2. **Say:** Count the items you drew one at a time and record them using tally marks in sets of 5.
3. **Say:** When all the tally marks have been recorded. Count the sets of tally marks and record the total number on your paper.
4. Walk around room and support pupils.

Closing *(2 minutes)*

1. **Ask:** How many items did you draw?
2. Record pupils' responses on the board.

Lesson Title: Numbers Up to 100 in Words	**Theme:** Numbers and Numeration: Knowing and Understanding Numbers Up to 100		
Lesson Number: M-01-072	**Class/Level:** Class 1		**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to read and write numbers up to 100 in words.	**Teaching Aids** 100 chart at the end of the plan.	**Preparation** 1. Write the words for 1 - 20 on the board. 2. Write the words for multiples of 10 up to 100 on the board. 3. Draw a 100 chart, at the end of the plan, on the board.

Opening *(3 minutes)*

1. Begin by asking a few children to say their name aloud.
2. Point to objects around the room and ask pupils to name the object.
3. **Say:** Numbers have names as well, and they are written with words.
4. **Say:** What numbers do you know?

Introduction to the New Material *(10 minutes)*

1. Point to the word 'one' on the board and write the number 1 to the left of it.
2. **Say:** Read this number with me. **Say:** 1
3. Point to the word 'two' and write the number 2 to the left of it.
4. **Say:** Read this number with me. **Say:** 2
5. Point to the word 'three' and write the number 3 to the left of it.
6. **Say:** Read this number with me. **Say:** 3
7. Continue this process through number 20.
8. Tell pupils to copy down the numbers and words for 1 – 20.

Guided Practice *(12 minutes)*

1. **Say:** Numbers are made up of digits, and each digit has a word that goes along with it.
2. Write 21 on the board.
3. Underline the digit 2 and write the word twenty under it.
4. Underline the digit 1 and write the word one under it.
5. Place a hyphen between the two words.
6. **Say:** Twenty-one. **Say:** Please repeat.
7. Write 22 on the board.
8. Underline the first digit 2 and write the word twenty under it.
9. Underline the second digit 2 and write the word two under it.
10. Place a hyphen between the two words.
11. **Say:** When there are two words they must be separated by a hyphen.
12. **Say:** Twenty-two. **Say:** Please repeat.

13. **Say:** Raise your hand if they know what number comes next.
14. Once they answer 23, ask a pupil to raise their hand and share what two words make up 23.
15. Once a pupil answers 'twenty' and 'three', write 23 on the board.
16. Call on pupils until you reach 25.
17. **Say:** The rest of the numbers continue with the same pattern. We will now count by tens.
18. Write 30 and thirty on the board and ask the pupils to repeat the word.
19. Write 40 and forty on the board and ask the pupils to repeat the word.
20. Write 50 and fifty on the board and ask the pupils to repeat the word.
21. Continue this process through 90. When you get to one hundred, write the number and the word and **Say:** We will stop here today.

Independent Practice *(8 minutes)*

1. Write these numbers in a column on the board:

   35 (Answer: thirty-five)
   41 (Answer: forty-one)
   52 (Answer: fifty-two)
   63 (Answer: sixty-three)
   74 (Answer: seventy-four)
   85 (Answer: eighty-five)
   96 (Answer: ninety-six)

   17 (Answer: seventeen)
2. Tell pupils to write the names of the numbers in words next to the number. Remind them to include the hyphen.
3. When pupils are finished, have them choose new numbers to write words for.

Closing *(2 minutes)*

1. Write a number on the board and ask pupils to raise their hands and name it with words.
2. Continue this process for the next couple of minutes.
[100 CHART]

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Lesson Title: Drawing a 12-Hour Clock Face	**Theme:** Measurement and Estimation: Time	
Lesson Number: M-01-073	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to draw a 12-hour clock face.		**Teaching Aids** None		**Preparation** None

Opening *(4 minutes)*

1. **Ask:** What time do we start school in the morning?
2. Record pupils' answers on the board.
3. **Ask:** What time do we finish school in the afternoon?
4. Record pupils' answers on the board.
5. **Say:** Today we will be learning how to create a clock face, which will help us to tell the time.

Introduction to the New Material *(8 minutes)*

1. **Say:** A clock face begins with a circle.
2. Draw a circle on the board.
3. **Say:** It then has 12 marks on the circle at equal intervals.
4. Draw:
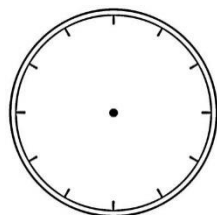
5. Point to the mark at the top and **Say:** You will see a mark here at the very top.
6. Point to the mark at the bottom and **Say:** You will see a mark here at very bottom.
7. Point to the mark on the very right and **Say:** You will see a mark at the very right.
8. Point to the mark on the very left and **Say:** You will see a mark here at the very left.
9. **Say:** There are 2 marks in between each of these marks. The marks on the circle are at equal intervals.

Guided Practice *(8 minutes)*

1. **Say:** Draw a large circle on your paper.
2. Draw a large circle on the board.
3. Make a line at the top of the circle. **Say:** Make a small mark like this at the very top of your circle.
4. Make a line at the bottom of the circle. **Say:** Make a small mark like this at the very bottom of your circle.

5. Make a line at the very right of the circle. **Say:** Make a small mark like this at the very right of your circle.
6. Make a line at the very left of the circle. **Say:** Make a small mark like this at the very left of your circle.
7. **Say:** Make 2 marks in between the marks you have already created. Make sure they are an equal distance from each other and the marks to the right and left of them.
8. **Say:** You have created a clock face.

Independent Practice *(12 minutes)*

1. **Say:** You will now be working on your own.
2. **Say:** You are going to create a new clock face like the one we have created together.
3. **Say:** Start by drawing a large circle on your paper. Be careful when creating the marks on the clock face and make sure they are an equal distance from each other.

Closing *(3 minutes).*

1. **Say:** Today we learnt how to draw the clock face.
2. **Say:** In the next lesson we will learn how to draw the hours on the clock face.

Lesson Title: Drawing 12 Hours on the Clock Face	**Theme:** Measurement and Estimation: Time	
Lesson Number: M-01-074	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to draw the 12 hours on the clock face.		**Teaching Aids** 1-12 number line at the end of the plan.		**Preparation** Draw a 1 – 12 number line, at the end of the plan, on the board.

Opening *(4 minutes)*

1. **Ask:** What time do you get up in the morning? Record pupils' answers on the board.
2. **Ask:** What time do you go to bed at night? Record pupils' answers on the board.
3. **Say:** Today we will be learning how to put the hours on a clock, and we will learn about the number of hours in a day.

Introduction to the New Material *(10 minutes)*

1. **Say:** In previous lessons we have worked with the number line, all the way up to 100.
2. **Say:** Today we will be working with the numbers 1 – 12
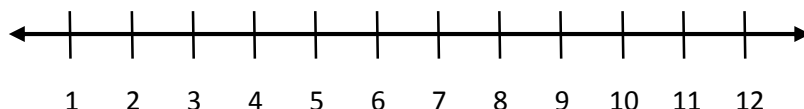
3. **Say:** Here is the number line for numbers 1 to 12. Let's say them together.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
5. **Say:** These are the same numbers that are on a clock: 1 to 12
6. **Say:** In a day there are 24 hours. The numbers 1 to 12 are in the morning, and the numbers 1 to 12 are in the afternoon. Together they make 24
7. **Say:** The first 12 in the day is called noon. The second 12 in the day is called midnight.
8. **Say:** Each of the numbers 1 to 12 are found on a clock face.
9. Draw:

10. **Say:** This is a clock face with the numbers 1 to 12.
11. Point to the number 12 and **Say:** You will see that 12 is at the very top.
12. Point to the 6 and **Say:** You will see that the number 6 is at the very bottom.
13. Point to the number 3 and **Say:** You will see that 3 is at the very right.
14. Point to the 9 and **Say:** You will see that the number 9 is at the very left.

15. Point to the number 1 and **Say:** The number 1 is here, and the numbers then go in order all the way up to 12.

Guided Practice *(8 minutes)*

1. **Say:** Draw a large circle on your paper.
2. Draw a large circle on the board.
3. Make a line at the top of the circle. **Say:** Make a small line like this at the very top of your circle.
4. Write the number 12 below the line on the clock face. **Say:** Write the number 12 below the line you made.
5. **Say:** Make a small line like this at the very bottom of your circle.
6. Write the number 6 above the line on the clock face. **Say:** Write the number 6 above the line you made.
7. **Say:** Make a small line like this at the very right on your circle.
8. Write the number 3 to the left of the line on the clock face. **Say:** Write the number 3 to the left of the line you made.
9. **Say:** Make a small line like this at the very left on your circle.
10. Write the number 9 to the right of the line on the clock face. **Say:** Write the number 9 to the right of the line you made.
11. **Say:** You have now written the hours 12, 3, 6, and 9 on your clock.

Independent Practice *(10 minutes)*

1. **Say:** In just a moment you will work with a partner to finish placing the numbers on your clock face.
2. **Say:** You will see that between the 12 and the 3 there are 2 numbers, 1 and 2.
3. **Say:** Between the 3 and the 6 there are two numbers, 4 and 5.
4. **Say:** Between the 6 and the 9 there are two numbers, 7 and 8.
5. **Say:** Between the 9 and the 12 there are two numbers, 10 and 11.
6. **Say:** Make a small line first to show where the number will go, then clearly write the number on the clock face.
7. **Say:** You may now work with a partner; however, you must each create your own clock face.

Closing *(3 minutes)*

1. **Say:** Today we learnt how to draw the 12 hours on the clock face, and we learnt how many hours are in a day. **Say:** In the next lesson we will learn how to tell time in hours.

[NUMBER LINE 1-12]
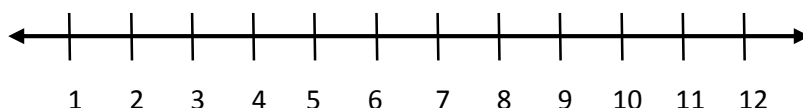
Lesson Title: Telling the Time in Hours	Theme: Measurement and Estimation: Time	
Lesson Number: M-01-075	Class/Level: Class 1	Time: 35 minutes

| | Learning Outcomes
By the end of the lesson, pupils will be able to tell the time in hours using 12-hour clock face. | | Teaching Aids
A clock face with numbers 1 – 12. | | Preparation
Draw a clock face with numbers 1 – 12, in the Introduction to the New Material, on the board. |
|---|---|---|---|---|---|

Opening *(4 minutes)*

1. **Say:** In the previous lesson you learnt how to draw the numbers on the clock face and learnt that there are 24 hours in a day.
2. **Say:** Today you will learn how to tell the time in hours.

Introduction to the New Material *(10 minutes)*

1. **Say:** In the previous lesson we learnt that the clock has the numbers 1 through 12 placed on it as you can see on the clock face on the board:
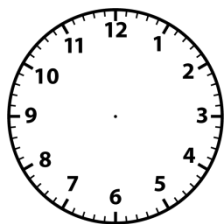
2. **Say:** Today we will be learning about a new part of the clock. It will help us tell the time in hours.
3. **Say:** This part is called the little hand. The little hand helps us tell the time by hours.
4. Draw a little hand on the clock and point it at 3.
5. **Say:** The little hand is pointing to the 3.

6. **Say:** There is a big hand that points to the 12. When the big hand points to the 12, it means the time is something o'clock. We will learn more about it in a different lesson, but for now it will continue to point to the 12.
7. **Say:** Since the little hand is on the 3, we know that the time is 3 o'clock.
8. Erase the little hand on the 3 and draw it pointing to the 7.
9. **Say:** The clock says it is now 7 o'clock.
10. Erase the little hand on the 7 and draw it pointing to the 9.

11. **Say:** The clock says it is now 9 o'clock.

Guided Practice *(10 minutes)*

1. **Say:** Draw a large circle on your paper.
2. Erase both the little hand and the big hand on the clock on the board.
3. **Say:** Label your clock with the numbers 1 - 12.
4. **Say:** Draw a little hand and point it at the number 4.
5. **Ask:** Who would like to come draw the little hand on my clock on the board?
6. Call on a pupil with hand raised to draw the little hand on the number 4.
7. Draw a big hand and point it at the number 12.
8. **Ask:** What time does our clock now say? (Answer: 4 o'clock)
9. Erase both the little hand and the big hand on the clock on the board.
10. **Say:** Draw a little hand and point it at the number 6.
11. **Ask:** Who would like to come draw the little hand on my clock on the board?
12. Call on a pupil with hand raised to draw the little hand on the number 6.
13. Draw a big hand and point it at the number 12.
14. **Ask:** What time does our clock now say? (Answer: 6 o'clock)

Independent Practice *(10 minutes)*

1. **Say:** You will now work with a partner.
2. **Say:** Take turns drawing hours on your clock face. Keep the big hand pointing to the 12, but draw the little hand pointing to a number.
3. **Say:** Show your partner what you have drawn and have them tell you what time you have drawn. If they give you the incorrect time, ask them to try again.
4. **Say:** Once they have told you the correct time, it is their turn to draw the hands on their clock face.
5. **Say:** Practice drawing on your clock face and telling the time until I have told you time is up.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to tell the time in hours.
2. **Say:** When the bog hand is pointing straight up to the 12, we know it is something o'clock. The little hand then points to a number to tell us the time in hours.
3. **Say:** If the big hand is point straight up and the little hand is pointing to the 1, what time is it? (Answer: 1 o'clock)
4. **Say:** In the next lesson we will learn to tell the time in half hours.

| **Lesson Title:** Telling the Time in Hours and Half Hours	**Theme:** Measurement and Estimation: Time	
Lesson Number: M-01-076	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to tell the time in half hours using a 12-hour clock face.	**Teaching Aids** A clock face with numbers 1 – 12.	**Preparation** Draw a clock face with numbers 1 – 12 on the board.

Opening *(4 minutes)*

1. **Say:** In the previous lesson you learnt how to tell the time in hours.
2. **Say:** Today you will learn how to tell the time in hours and half hours.

Introduction to the New Material *(10 minutes)*

1. **Say:** In the previous lesson we learnt that the clock has the numbers 1 through 12 on it as you can see on the clock face on the board:

2. **Say:** There is one more part of the clock we will learn about today. It will help us tell the time in half hours. **Say:** We know that the little hand helps us tell the time by hours.
3. Draw a little hand on the clock and point it at 11. **Say:** The little hand is pointing at 11.
4. **Say:** The second part, the new part we are learning about, is called the big hand. The big hand helps us tell the time by minutes.
5. Draw a big hand on the clock and point it at 12. The clock should look like this:

6. **Say:** The big hand is pointing at the 12. **Say:** Yesterday, we learned that whenever the big hand is pointing exactly to the 12, it tells us we are exactly on an hour, so we look at the little hand to see what number it is pointing at.
7. **Say:** Since the little hand is on the 11, we know that the time is 11 o'clock.
8. Erase the little hand on the 11 and draw it pointing to the 9. **Say:** The big hand is still pointing exactly to the 12, and the little hand is pointing to the 9. The clock says it is now 9 o'clock.
9. Erase the big hand and draw it pointing to the 6. Erase the little hand and draw it halfway between the 7 and the 8. It should look like this:

10. **Say:** I have now moved the big hand and it is pointing directly at the 6. When the big hand is pointing to the six, it now tells us we are on a half hour.
11. **Say:** You will see that the small hand is no longer exactly on the 7 but is halfway to the 8. The time still starts with 7 because we are not at 8 yet.
12. **Say:** When we read the clock we start with the minutes, which in this case is half past, because the big had has gone half way around the clock. Then we add the hour which is 7. So the clock says half past seven.
13. Erase the short hand and draw it halfway between the 2 and the 3. **Say:** Now the clock says half past 2.

Guided Practice *(10 minutes)*

1. **Say:** Draw a large circle on your paper. **Say:** Label your clock with the numbers 1 to 12.
2. Erase both the little hand and the big hand on the clock on the board.
3. **Say:** Draw a little hand and point it at the number 4.
4. **Ask:** Who would like to come draw the little hand on my clock on the board?
5. Call on a pupil with hand raised to draw the little hand on the number 4.
6. **Say:** Draw a big hand and point it at the number 12.
7. **Ask:** Who would like to come draw the big hand on my clock on the board?
8. **Ask:** What time does our clock now say? (Answer: 4 o'clock)
9. **Say:** Now erase the big hand on your clock.
10. **Say:** Draw the big hand and point it at the number 6.
11. **Ask:** Who would like to come draw the big hand on my clock on the board?
12. **Ask:** Who would like to come and move the little hand to the correct spot? (Answer: Halfway between 4 and 5)
13. **Ask:** What time does our clock now say? (Answer: Half-past four)

Independent Practice *(10 minutes)*

1. **Say:** You will now work with a partner. Take turns drawing times on your clock face. Draw to the hour and half hour. **Say:** Show your partner what you have drawn and have them tell you what time you have drawn. If they give you the incorrect time, ask them to try again.
2. **Say:** Once they have told you the correct time, it is their turn to draw the hands on their clock.
3. **Say:** Practise drawing on your clock face and telling times until I have told you time is up.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to tell the time in half hours. In the next lesson we will learn more about using the clock hands to tell the time.

Lesson Title: Hands on the Clock Face	Theme: Measurement and Estimation: Time	
Lesson Number: M-01-077	Class/Level: Class 1	Time: 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use the long and short hands on the clock face to show time.		Teaching Aids A clock face with numbers 1 – 12		Preparation Draw a clock face with numbers 1 – 12, in the Introduction to the New Material, on the board.

Opening *(4 minutes)*

1. **Say:** In the previous lesson you learnt how to tell the time in hours and half hours.
2. **Say:** Today you will practise using the big and little hand on the clock face to show time.

Introduction to the New Material *(10 minutes)*

1. **Say:** In the previous lesson we learnt that the clock has the numbers 1 through 12 on it, as you can see on the clock face on the board:

2. **Say:** We also learnt about a clock part called the little hand. The little hand helps us tell the time by hours.
3. Draw a little hand on the clock and point it to 3. **Say:** The little hand is pointing to the 3.

4. **Say:** We also learned about a second part called the big hand. The big hand helps us tell the time by minutes.
5. Draw a big hand on the clock and point it at 12.
6. **Say:** Since the big hand is on the 12, we know that the time is 3 o'clock.
7. **Say:** I'm now going to draw 9 o'clock.
8. **Say:** I am going to draw the little hand on the 9 and the big hand on the 12.

Guided Practice *(10 minutes)*

1. **Say:** Now we will practice drawing the big hand and little hand together.
2. **Say:** Draw a large circle on your paper. **Say:** Label your clock with the numbers 1 to 12.
3. Erase both the little hand and the big hand on the clock on the board.
4. **Say:** Draw a little hand and point it at the number 6.
5. **Ask:** Who would like to come draw the little hand on my clock on the board?
6. Call on a pupil with hand raised to draw the little hand on the number 6.
7. **Ask:** Who would like to come draw the big hand on my clock on the board pointing to 12?
8. Call on a pupil with hand raised to draw the big hand on the number 12.
9. **Ask:** What time does our clock now say? (Answer: 6 o'clock)
10. Erase both the little hand and the big hand on the clock on the board.
11. **Say:** Draw a little hand and point it between the numbers 9 and 10.
12. **Ask:** Who would like to come draw the little hand on my clock on the board?
13. Call on a pupil with hand raised to draw the little hand pointing between the 9 and the 10.
14. **Ask:** Who would like to come draw the big hand on my clock on the board pointing to 6?
15. Call on a pupil with hand raised to draw the big hand on the number 6.
16. **Ask:** What time does our clock now say? (Answer: Half past nine.)

Independent Practice *(10 minutes)*

1. **Say:** You will now work on your own.
2. Write:

   8 o'clock   half past 7   3 o'clock   half past 4   12 o'clock
3. **Say:** Create a clock face for each of the times I have written here on the board.
4. **Say:** Remember to use the little hand and the big hand correctly to show the time.
5. Walk around the room supporting pupils.
6. Give pupils 10 minutes to work.
7. **Say:** Hold up your work for me to see.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to use the big hand and the little hand to show the time on the clock face.
2. **Say:** When the big hand is pointing straight up to the 12, we know it is something o'clock. When the big hand is pointing straight down to the 6, we know it is half past something.
3. **Say:** In the next lesson we will talk about time in everyday life.

Lesson Title: Talking about the Time of Home and School Activities	**Theme:** Measurement and Estimation: Time	
Lesson Number: M-01-078	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to talk about home and school activities using a 12-hour clock face.	**Teaching Aids** A clock face with numbers 1 – 12	**Preparation** Draw a clock face with numbers 1 – 12, in the Introduction to the New Material, on the board.

Opening *(4 minutes)*

1. **Say:** In the previous lesson you learnt how to use the big hand and little hand on the clock face to tell the time to the hour and half hour.
2. **Say:** Today you will learn how to show the time when activities take place.

Introduction to the New Material *(5 minutes)*

1. **Say:** In the previous lesson we learnt that the clock has the numbers 1 through 12 on it, as you can see on the clock face on the board.

2. **Say:** We know that the little hand helps us tell the time by hours.
3. Draw a little hand on the clock and point it at 3.
4. **Say:** We know that the big hand helps us tell the time by minutes.
5. Draw a big hand on the clock and point it at 12.
6. **Say:** Since the little hand is on the 3 and the big hand is on the 12, we know that the time is 3 o'clock.
7. **Say:** I'm now going to draw 9 o'clock.
8. **Say:** I can use the clock face to show the time certain activities take place.
9. **Say:** Let's say I leave school at the end of the day at 6 o'clock in the evening.
10. Draw the little hand pointing to the six.
11. **Say:** I have drawn the little hand pointing to the six.
12. Draw the big hand pointing to the twelve.
13. **Say:** I have drawn the big hand pointing to the 12.
14. **Say:** As you will see, my clock face shows 6 o'clock. This is the time I leave school in the evening.

Guided Practice *(10 minutes)*

1. **Say:** Now we will practice drawing the big hand and little hand together.
2. **Say:** Draw a large circle on your paper. **Say:** Label your clock with the numbers 1 to 12.
3. Erase both the little hand and the big hand on the clock on the board.
4. **Say:** Let's say on days we are not at school, we get up at 8 o'clock in the morning.
5. **Say:** Draw a little hand and point it at the number 8.
6. **Ask:** Who would like to come draw the little hand on my clock on the board?
7. Call on a pupil with hand raised to draw the little hand on the number 8.
8. **Ask:** Where should the big hand point? (Answer: 12)
9. **Ask:** Who would like to come draw the big hand on my clock on the board pointing to 12?
10. Call on a pupil with hand raised to draw the big hand on the number 12.
11. **Ask:** What time does our clock now say? (Answer: 8 o'clock)
12. **Say:** The little hand should be pointing to the 8 and the big hand to the 12.
13. Erase both the little hand and the big hand on the clock on the board.
14. **Say:** Erase the little hand and big hand on your clock.
15. **Say:** Let's say on days we are not at school, we go to bed at half past 10.
16. **Say:** Draw a little hand and point it halfway between 10 and 11.
17. **Ask:** Who would like to come draw the little hand on my clock on the board?
18. Call on a pupil with hand raised to draw the little hand on the clock on the board.
19. **Ask:** Where should the big hand point? (Answer: 6)
20. **Ask:** Who would like to come draw the big hand on my clock on the board pointing to 6?
21. Call on a pupil with hand raised to draw the big hand on the number 6.
22. **Ask:** What time does our clock now say? (Answer: Half past ten)
23. **Say:** The little hand should be pointing between the 10 and 11, and the big hand should be pointing to the 6.

Independent Practice *(10 minutes)*

1. **Say:** You will now work on your own.
2. Write: Wake up. Go to school. Eat lunch. Go home from school. Go to bed.
3. **Say:** Create a clock face to show what time each of the activities I have written on the board takes place. Wake up. Go to school. Eat lunch. Go home from school. Go to bed.
4. **Say:** Remember to use the little hand and the big hand correctly to show the time.
5. Walk around the room assisting pupils.
6. Give pupils 10 minutes to work.

Closing *(2 minutes)*

1. **Say:** Hold up your work for me to see.
2. **Say:** Well done! Today we learnt how to use the clock face to show what time events in our daily lives take place.
3. **Say:** In our next lesson we will be learning about earlier and later.

Lesson Title: Using Pictures to Learn about Earlier and Later	**Theme:** Measurement and Estimation - Time	
Lesson Number: M-01-079	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to tell what was earlier and later from pictures.	**Teaching Aids** None	**Preparation** None

Opening *(2 minutes)*

1. **Say:** In the previous lesson we learnt how to talk about home and school activities using a 12 hour clock.
2. **Say:** Today we will learn about earlier and later using pictures.

Introduction to the New Material *(5 minutes)*

1. **Say:** When we use the word earlier, we are talking about something that happened before.
2. **Say:** For example, earlier in the school day we learned about _____ (subject that you taught earlier).
3. **Say:** Earlier in the year we learned how to count to 100.
4. **Say:** Earlier in the day the sun came up.
5. **Say:** When we use the word later, we are talking about something that will happen after.
6. **Say:** Later in the school day we will leave and go home.
7. **Say:** Later in the day the sun will go down.

Guided Practice *(8 minutes)*

1. **Ask:** What is something that happened earlier today?
2. Record pupil answers on the board.
3. **Ask:** What is something that happened earlier in the year?
4. Record pupil answers on the board.
5. **Ask:** What is something that will happen later today?
6. Record pupil answers on the board.
7. **Ask:** What is something that will happen later in the year?
8. Record pupil answers on the board.

Independent Practice *(15 minutes)*

1. **Say:** You will now work on your own to draw a picture of what takes place before you come to school in the morning.

Closing *(5 minutes)*

1. **Ask:** Who would like to share the picture they drew of what takes place before school?
2. Call on pupils with their hands raised to share their drawings in front of the class. Ask the pupil to explain what is happening in the picture.

Lesson Title: Using the 12 Hour Clock Face to Learn about Earlier and Later	**Theme:** Measurement and Estimation - Time	
Lesson Number: M-01-080	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to identify what is earlier and later on the 12 hour clock face.	**Teaching Aids** A clock face with numbers 1 – 12	**Preparation** Draw a clock face with numbers 1 – 12, in the Introduction to the New Material, on the board.

Opening *(4 minutes)*

1. **Say:** In the previous lesson we used pictures to learn about earlier and later.
2. **Say:** Today we will learn about earlier and later using the clock face.

Introduction to the New Material *(10 minutes)*

1. **Say:** As you know, the clock has the numbers 1 through 12 placed on it as you can see on the clock face on the board.

2. **Say:** We also learned about the clock parts called the little hand and big hand. The little hand helps us tell the time by hours. The big hand helps us tell the time by minutes.
3. Draw a little hand on the clock and point it at 3. **Say:** The little hand is pointing at 3.
4. Draw a big hand on the clock and point it at 12. **Say:** Since the big hand is on the 3, we know that the time is 3 o'clock.

5. **Say:** I can show one hour earlier on the clock by moving the little hand back one hour and keeping the big hand the same.
6. Erase the little hand and draw in pointing at the 2.

7. **Say:** The clock now shows 1 hour earlier. The clock now shows 2 o'clock.
8. **Say:** I'm now going to draw 9 o'clock. **Say:** I am going to draw the little hand on the 9 and the big hand on the 12.

9. **Say:** Now I'm going to draw the time one hour later.
10. Erase the little hand and draw it pointing to the 10.

11. **Say:** I have drawn the time one hour later. The clock now says 10 o'clock.
12. Erase both the little hand and the big hand on the clock on the board.

Guided Practice *(10 minutes)*

1. **Say:** Now we will practise together. **Say:** Draw a large circle on your paper. **Say:** Label your clock with the numbers 1 - 12.
2. Draw the little hand pointing to the 6 and the big hand pointing to the 12.
3. **Say:** Draw a little hand and point it at the number 6. Draw a big hand and point it to the 12.
4. **Ask:** What time is it on the clock? (Answer: 6 o'clock).
5. **Ask:** What time will it be one hour later? (Answer: 7 o'clock).
6. **Say:** Erase the hands on your clock and draw 7 o'clock.
7. **Ask:** What time would it be two hours earlier than 7 o'clock? (Answer: 5 o'clock)
8. **Say:** Erase the hands on your clock and draw 5 o'clock.
9. **Ask:** What time would it be one hour earlier than 5 o'clock? (Answer: 4 o'clock)
10. **Say:** Erase the hands on your clock and draw 4 o'clock.

Independent Practice *(10 minutes)*

1. **Say:** You will now work on your own.
2. Write:
    a. 8 o'clock – 1 hour later (Answer: 7 o'clock)
    b. 3 o'clock – 2 hours earlier (Answer: 1 o'clock)
    c. 1 o'clock – 2 hours later (Answer: 3 o'clock)
    d. 12 o'clock – 1 hour earlier (Answer: 11 o'clock)
    e. 5 o'clock – 4 hours earlier (Answer: 1 o'clock)
3. **Say:** Look at the times I have written on the board, and whether it says earlier or later. Create a clock face for each correct time. Remember to use the little hand and the big hand correctly.

Closing *(2 minutes)*

1. **Say:** Hold your work up for me to see. **Say:** Today we learnt about earlier and later using the clock face.
2. **Say:** In the next lesson we will make up stories using time.

Lesson Title: Making Up Stories Using Time	**Theme:** Measure and Estimation - Time	
Lesson Number: M-01-081	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to make up stories using hours, half hours, earlier and later.		**Teaching Aids** The poem 'The Clock Poem' at the end of the plan		**Preparation** Write the poem 'The Clock Poem', at the end of the plan, on the board.

Opening *(1 minute)*

1. **Say:** We have been learning about telling the time, and time in hours, half hours.
2. **Say:** Today we are going to make up stories and poems about time.

Introduction to the New Material *(5 minutes)*

1. **Say:** I am going to share a poem about time.
2. Read 'The Clock Poem'.

Guided Practice *(0 minutes)*

Independent Practice *(19 minutes)*

1. **Say:** You are now going to work with a partner to make up a story or poem about time. You may use the words 'hour', 'half hour', 'earlier' and 'later'.
2. **Say:** Take turns adding to the story.
3. Write the following words 'hour', 'half hour', 'earlier' and 'later' on the board.

Closing *(10 minutes)*

1. **Ask:** Who would like to share their time stories with the class?
2. Call on volunteers to tell their stories to the class.
3. **Say:** Well done. You made up wonderful stories and poems today.

[POEM THE CLOCK POEM]

I'm in the clock crew and I'm okay!
I tick all night and I tick all day.

I've got two hands, I'm having a ball,
Because I've got no arms at all!

My big hand can move sixty minutes in one hour,
I'm the one with the strength and power.

My small hand isn't quite as fast.
If they were in a race, it would come last!

It takes so long just to get around (12 hours you know),
It's careful, small, and slow.

Now meet my friends that help me tick-tock,
Half past, quarter past, quarter to and o'clock.

Lesson Title: Illustrating a Story Involving Time with 12-Hour Flock Faces	**Theme:** Measure and Estimation - Time	
Lesson Number: M-01-082	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to draw the time on a clock face to illustrate a story involving time.	**Teaching Aids** The poem 'The Clock Poem' at the end of the plan.	**Preparation** Write the poem 'The Clock Poem', at the end of the plan, on the board.

Opening *(1 minute)*

1. **Say:** In the previous lesson we made up stories and poems using time.
2. **Say:** Today we are going to illustrate the stories and poems we made up.

Introduction to the New Material *(5 minutes)*

1. **Say:** As you will remember I shared with you 'The Clock Poem' yesterday to help give you ideas to write stories. I will read it again and then draw clock faces that go with the poem.
2. Read The Clock Poem (at the end of the lesson).

Guided Practice *(2 minutes)*

1. **Say:** As you will recall, my poem referred to 'half-past', 'quarter past', 'quarter to' and 'o'clock'.
2. **Say:** We have learned about 'half-past' and 'o'clock' in our lessons so I will illustrate clock faces that show 'half-past' and 'o'clock'.
3. Draw clock faces for 'half-past' and 'o'clock' on the board.

Independent Practice *(19 minutes)*

1. **Say:** You are now going to work with your partner to first review the story you made up in the previous lesson.
2. **Say:** Once you have reviewed your story you are going to create clock faces to go along with the story you created.

Closing *(10 minutes)*

1. **Ask:** Who would like to share their clock faces with the class?
2. Call on pairs of pupils to show their clock faces to the class.

[THE CLOCK POEM]

I'm in the clock crew and I'm okay!
I tick all night and I tick all day.

I've got two hands, I'm having a ball,
Because I've got no arms at all!

My big hand can move sixty minutes in one hour,
I'm the one with the strength and power.

My small hand isn't quite as fast.
If they were in a race, it would come last!

It takes so long just to get around (12 hours you know),
It's careful, small, and slow.

Now meet my friends that help me tick-tock,
Half past, quarter past, quarter to and o'clock.

Lesson Title: Games Using Numbers Up to 100	**Theme:** Numbers and Numeration – Whole Numbers	
Lesson Number: M-01-083	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to play games about numbers up to 100.	**Teaching Aids** 1. A blank Bingo card at the end of the plan. 2. Counters (beads, stones)	**Preparation** 1. Draw a blank Bingo card, at the end of the plan, on the board. 2. Gather enough counters for each pupil to have a small handful.

Opening *(1 minute)*

1. **Say:** We have been learning how to recognise numbers up to 100.
2. **Say:** Today we are going to play a game with numbers.

Introduction to the New Material *(8 minutes)*

1. **Say:** We are going to play a game called Bingo.
2. **Say:** Before we play we need to create Bingo cards.
3. **Say:** You will need a blank piece of paper.
4. Point to the Bingo card on the board.
5. **Say:** We are going to be creating cards like this.
6. **Say:** Create a row of 5 boxes.
7. **Say:** Then create four more rows with 5 boxes directly under the first row.
8. Point to the Bingo card to show the 5 boxes across and the 5 rows of 5 boxes.
9. **Say:** When you have finished creating the boxes, raise your hand so I know you are finished.
10. Walk around the room to make sure pupils are creating the Bingo cards correctly.

Guided Practice *(8 minutes)*

1. **Say:** Now it's time to fill in our boxes.
2. **Say:** The first box we are going to fill in is the box in the middle.
3. Write: Free Space
4. **Say:** Write the words Free Space in this box.
5. **Say:** Now fill up the rest of the boxes with any number 1 - 100
6. **Say:** Numbers may only be used one time, so you cannot write two 3s or two 25s.
7. **Say:** When you have finished filling numbers in all the boxes, please raise your hand.

Independent Practice *(17 minutes)*

1. Hand each pupil a small amount of beads or seeds.
2. **Say:** These are going to be your markers.

3. **Say:** Place one marker in the middle in the Free Space.
4. Mark an 'X' in the Free Space on the Bingo card on the board.
5. **Say:** I will say a number between 1 and 100 and I will write the number on the board.
6. **Say:** If you have that number in one of your boxes, you will place a marker in that box.
7. **Say:** Listen and watch carefully as I say and write numbers on the board.
8. **Say:** I will keep saying and writing numbers until one of you has 5 markers in a line going up and down or right to left.
9. Draw a line going up and down in each column. Draw a line going right to left in each row.
10. **Say:** The 5 markers may go across on any line or up and down on any line.
11. **Say:** When you have 5 markers in a line, you will say 'Bingo' so the whole class can hear.
12. **Say:** That tells us that you have 5 markers in a line.
13. **Say:** I will then ask you to read the numbers that you have so I can make sure they are listed on the board.
14. **Say:** We will play this game until our time is up.
15. Say and write numbers that are not in order on the board. Say each number one on at a time. Give the pupils time to find the number before saying the next number.
16. When a pupil has said BINGO, ask them to say their numbers aloud while you check the numbers to make sure they are written on the board.
17. If they say a number that is not listed on the board, tell the pupil that number is not listed and they do not have Bingo.
18. Begin saying and writing numbers again until the next pupil says Bingo.
19. Once a pupil has a correct Bingo, have the pupils erase their cards and write new numbers so you can play again.

Closing *(1 minute)*

1. **Say:** Today we learnt how to play Bingo by using numbers 1 to 100.
2. **Say:** In the next lesson we will use pictures to count and write numbers up to 100.

[BINGO CARD]

B	I	N	G	O
		Free Space		

Lesson Title: Using Pictorial Representation to Count and Write Numbers Up to 100		**Theme:** Numbers and Numeration – Whole Numbers up to 100	
Lesson Number: M-01-084		**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to: 1. Count up to 100 objects in pictures, using grouping. 2. Record the objects counted using numbers up to 100.		**Teaching Aids** None		**Preparation** None

Opening *(1 minute)*

1. **Say:** In our previous lesson we played a game called Bingo to help us recognise numbers up to 100.
2. **Say:** In today's lesson we will learn how to count up to 100 using pictures and record the number of objects counted.

Introduction to the New Material *(10 minutes)*

1. **Say:** When you have more than 20 objects it is easier to group objects together to count them. We learnt in a previous lesson how to use tally marks to count up to 10.
2. **Say:** Today we will learn how to use tally marks to count up to 100.
3. **Say:** Before we start, let's review how to use tally marks.
4. Draw tally chart on the board:

1	I	6	Ж I
2	II	7	Ж II
3	III	8	Ж III
4	IIII	9	Ж IIII
5	Ж	10	Ж Ж

5. **Say:** Tally marks are a series of lines that help us to more easily count large numbers of objects.
6. **Say:** A complete set of tally marks is 5, and therefore objects can be counted in 5s.
7. **Say:** Sometimes objects do not make up complete sets. However, if you count the number of lines you will get the same number as the number listed.
8. **Say:** If I have a picture of many bananas, I will use tally marks when I am counting them to record how many I have.
9. **Say:** Let's say I am counting the bananas and using tally marks here is the result.
10. Write:

ЖЖ ЖЖ ЖЖ ЖЖ III

11. **Say:** I can now count the tally marks by 5s. 5, 10, 15, 20. Then I have 3 left over.
12. **Say:** So the total number of bananas is 23.

Guided Practice *(8 minutes)*

1. **Say:** Let's practice together.
2. Write: 18 mangoes.
3. **Ask:** How would I record 18 mangos with tally marks? (Answer: 3 sets of 5 and 3 single marks).
4. Write:

$$\cancel{||||}\ \cancel{||||}\ \cancel{||||}\ |||$$
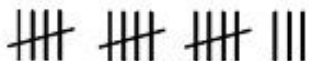
5. **Say:** Here are my 3 sets of 5 and 3 singles.
6. **Say:** We can now count them: 5, 10, 15, 16, 17, 18
7. Write: 34 pineapples.
8. **Ask:** Who would like to record 34 in tally marks on the board?
9. Choose a pupil with hand raised to record the tally marks.
10. The pupil should draw 6 sets of 5 tally marks and 4 singles.
11. Ask the pupil to count aloud the tally marks he or she has drawn.
12. Write: 46 pineapple
13. **Ask:** Who would like to record 46 in tally marks on the board?
14. Choose a pupil with hand raised to record the tally marks.
15. The pupils should draw 9 sets of 5 tally marks and 1 single.
16. Ask the pupil to count aloud the tally marks he or she has drawn.

Independent Practice *(14 minutes)*

1. **Say:** You will now practise on your own.
2. Erase the board.
3. Write the following:
    a. 56 oranges (Answer: 11 sets of 5 tally marks and 1 single)
    b. 31 flowers (Answer: 6 sets of 5 tally marks and 1 single)
    c. 67 children (Answer: 13 sets of 5 tally marks and 2 singles)
    d. 48 houses (Answer: 9 sets of 5 tally marks and 3 singles)
    e. 50 snakes (Answer: 10 sets of 5 tally marks)
    f. 72 bananas (Answer: 14 sets of 5 tally marks and 2 singles)
4. **Say:** Copy the numbers and words I have written down onto your paper.
5. **Say:** Record the numbers with tally marks.
6. **Say:** After you have created the tally marks, count them aloud to make sure you have drawn the correct amount.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to count up to 100 objects in pictures and record the numbers.
2. **Say:** In the next lesson we will learn how to draw pictures to represent numbers up to 100.

Lesson Title: Drawing Pictorial Representation to Count and Write Numbers Up to 100	Theme: Numbers and Numeration – Knowing and Understanding Numbers Up to 10	
Lesson Number: M-01-085	Class/Level: Class 1	Time: 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to: 1. Draw pictures for up to 100 using grouping. 2. Record the number of objects drawn in numerals.	Teaching Aids None	Preparation None

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt how to count up to 100 objects in pictures.
2. **Say:** In today's lesson we will learn how to draw up to 100 objects to represent numbers.

Introduction to the New Material *(8 minutes)*

1. **Say:** When you have a lot of objects to draw you can draw one picture and have it represent a certain number of objects.
2. **Say:** For example, if I have 40 bananas, instead of drawing 40 bananas, I can draw the following.
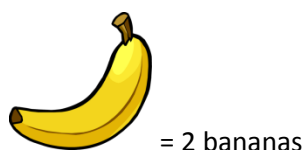
 = 2 bananas

3. **Say:** Then I would only draw 20 bananas, knowing that each one I drew represented 2.
4. **Say:** If I had 41 bananas then I could draw 20 whole bananas, and 1 half banana that would represent 1 banana.
5. **Say:** If I had 50 bananas, I could draw the following.
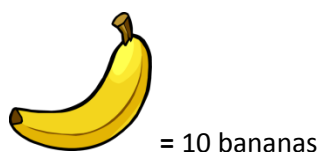
 = 10 bananas

6. **Say:** Then I would just draw 5 bananas because 5 bananas would represent 50 bananas.

Guided Practice *(6 minutes)*

1. **Say:** Now let's practise together.
2. **Say:** Let's say I have 50 pineapples.
3. **Ask:** What could I draw to represent the larger number? (Answer: 1 pineapple = 10 pineapples, 1 pineapple = 5 pineapples)

4. Call on a pupil with hand raised to draw the representation on the board.
5. **Say:** There are different ways I could record 50 pineapples.
6. **Say:** It's important to show how many objects each drawn object represents.
7. **Say:** If 1 pineapple is to represent 10 pineapples, then I need to draw a pineapple and write = 10 pineapples.

Independent Practice *(15 minutes)*

1. **Say:** You will now practise on your own.
2. Erase the board.
3. Write the following:
   a. 80 oranges
   b. 42 flowers
   c. 65 children
   d. 75 houses
   e. 30 snakes
   f. 28 bananas
4. **Say:** Copy the numbers and words I have written down onto your paper.
5. **Say:** Decide how many of each object will represent a larger number. For example, you may decide that one orange represents 10 oranges.
6. **Say:** Draw the correct amount of objects to represent the larger amount of objects.
7. **Say:** After you have drawn the objects, count them aloud to make sure you have drawn the correct amount and record the number you counted.

Closing *(5 minutes)*

1. **Ask:** Who would like to share how they represented the different numbers of objects?
2. Call on pupils with hands raised to draw their representations on the board.
3. **Say:** Today we learnt how to draw pictures to represent numbers and record the numbers of items.
4. **Say:** In the next lesson we will learn different ways to represent numbers.

Lesson Title: Using Different Representation for Numbers Up to 100	**Theme:** Numbers and Numeration – Knowing and Understanding Numbers Up to 10	
Lesson Number: M-01-086	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use counters or sticks to represent whole numbers up to 100.	**Teaching Aids** Counters (beads, stones)	**Preparation** Gather enough counters for each pupil to have 10.

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt how to use pictures to represent numbers.
2. **Say:** In today's lesson we will learn about other ways to represent numbers.

Introduction to the New Material *(10 minutes)*

1. **Ask:** What are other things we have that we have used to count?
2. Write pupil answers on the board.
3. If they have not suggested the following add to the board: fingers, pencils, bodies, stones, and counters.
4. **Say:** I have written down some additional things that we can use to help us count larger numbers.
5. **Say:** As we learned in the previous lesson, when you have a lot of objects to draw you can draw one picture and have it represent a certain number of objects.
6. **Say:** In this lesson we will be using real items to represent larger numbers, instead of drawing the items.
7. **Say:** For example, if I have the number 50, I can use sticks with each stick representing 10.
8. **Say:** Then I would only need 5 sticks to represent 50.
9. **Say:** If I had the number 35 then I could use stones to represent the 35 with each stone representing 5. Then I would only need 7 stones.
10. **Say:** If I had the number 100 I could use 1 pupil to represent 10. Then I would have 10 pupils representing 100.

Guided Practice *(12 minutes)*

1. **Ask:** What could I use to represent 25?
2. Write pupil answers on the board.
3. Choose one of the objects suggested by the pupils.
4. **Ask:** How many would each _____ represent? How many _____ would I need to represent 25?
5. Write answers on the board.
6. **Ask:** What could I use to represent 80?
7. Write pupil answers on the board.
8. Choose one of the objects suggested by the pupils.
9. **Ask:** How many would each _____ represent? How many _____ would I need to represent 80?

10. Write answers on the board.
11. **Ask:** What could I use to represent 120?
12. Write pupil answers on the board.
13. Choose one of the objects suggested by the pupils.
14. **Ask:** How many would each _____ represent? How many _____ would I need to represent 120?
15. Write answers on the board.

Independent Practice *(10 minutes)*

1. Write these numbers on the board:
    a. 40
    b. 28
    c. 65
    d. 99
2. **Say:** You will now work on your own. Copy the numbers onto your paper.
3. **Say:** Decide what object you will use to help represent larger numbers.
4. **Say:** Write how many of each number each object will represent. For example, 1 stick = 10
5. Write: Example: 1 stick = 10.
6. **Say:** Write how many objects you need in total to represent the whole number.
7. Write: Example: 10 sticks = 100

Closing *(2 minutes)*

1. **Say:** Today we learnt how to represent numbers up to 100 with objects.
2. **Say:** In the next lesson we will learn how to represent 100 on the number line.

Lesson Title: Represent Numbers Up to 100 on the Number Line	**Theme:** Numbers and Numeration: Whole Numbers Up to 100	
Lesson Number: M-01-087	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to represent numbers up to 100 on the number line.		**Teaching Aids** None		**Preparation** None

Opening *(2 minutes)*

1. Draw a line across the board with an arrow at both ends:
2. **Ask:** What is this? Once they have said 'a line', **Say:** As you will remember from a previous lesson, a line goes on forever in both directions, which is why there are arrows at both ends.
3. **Say:** Today we will continue our practise on how to locate numbers on a number line.

Introduction to the New Material *(8 minutes)*

1. On the line across the board, divide the line into 10 sections with horizontal lines.
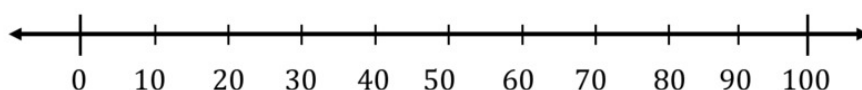
2. **Say:** Like the 100 chart, the smaller numbers are on the left become larger as you move right.
3. Write the numbers 34, 14 and 86 on the board. Record the first number on the number line:
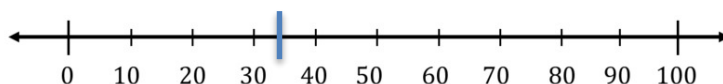
4. **Say:** I have placed the number 34 to the right of the 30 because 34 on the 100 chart is more than 30 but less than 35, which is halfway to 40.
5. Erase the 34 and place the 14 on the line:
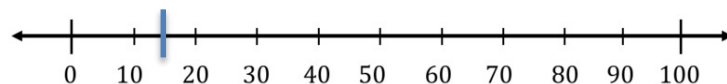
6. **Say:** I have placed the 14 to the right of the 10 and almost halfway to 20 because 14 is more than 10 and almost to 15.
7. Erase the 14 and place the 86 on the line.
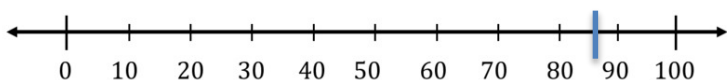
8. **Say:** I have placed the 86 just over halfway between 80 and 90 because it is 1 more than 85, which is halfway, and larger numbers go to the right.

Guided Practice *(12 minutes)*

1. **Say:** Draw a number line on your paper.
2. **Say:** Locate the number 30 on your number line and place a large dot.
3. **Ask:** Who would like to come locate the number 30 on my line here on the board?
4. Call on a pupil with hand raised to locate 30 on your number line and mark it with a dot.
5. **Say:** Locate the number 65 on your number line and place a large dot.
6. **Ask:** Who would like to come locate the number 65 on my line here on the board?
7. Call on a volunteer to mark 65 on your number line. **Say:** 65 is halfway between 60 and 70.
8. **Say:** Locate the number 12 on your number line and place a large dot.
9. **Ask:** Who would like to come locate the number 12 on my line here on the board?
10. Call on a volunteer to mark 12 on your number line. **Say:** 12 is just two higher than 10, so it is located just to the right of the number 10.
11. **Say:** Locate the number 99 on your number line and place a large dot.
12. **Ask:** Who would like to come locate the number 99 on my line here on the board?
13. Call on a volunteer to mark 99 on your number line. **Say:** 99 is just one less than 100, so it is located just to the left of the number 100.
14. **Say:** Locate the number 51 on your number line and place a large dot.
15. **Ask:** Who would like to come locate the number 51 on my line here on the board?
16. Call on a volunteer to mark 51 on your number line. **Say:** 51 is just one more than 50, so it is located just to the right of the number 50.
17. **Say:** Locate the number 46 on your number line and place a large dot.
18. **Ask:** Who would like to come locate the number 46 on my line here on the board?
19. Call on a volunteer to mark 46 on your number line. **Say:** 46 is just one more than halfway between 40 and 50, so it is located just to the right of halfway between 40 and 50.

Independent Practice *(15 minutes)*

1. **Say:** Now you're going to work on your own and use the number line you created to represent numbers on the number line.
2. Write the following numbers on the board and **Say:** Mark these numbers on your number line:

   4, 12, 16, 28, 33, 47, 52, 65, 71, 89, 97

Closing *(2 minutes)*

1. Point to your number line on the board and **Ask:** Are the lower numbers on the right side or on the left side of the line? (Answer: On the left)
2. **Ask:** Do the numbers go up or down as you go from left to right? (Answer: They go up.)

| **Lesson Title:** Identifying Halves Using Pictures	**Theme:** Number and Numeration: Fractions	
Lesson Number: M-01-088	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to identify halves of quantities using pictures.		**Teaching Aids** One piece of fruit, cut in two equal parts		**Preparation** Cut one piece of fruit in two equal parts.

Opening *(4 minutes)*

1. Hold up the piece of fruit together as one piece.
2. **Say:** This is a _____. It is a whole _____. If I want to share it equally with someone then I will cut it in half.
3. Separate the piece of fruit in half.
4. **Say:** I have divided the _____ in two equal parts. These parts are called halves. 1 half and 1 more half equal 2 halves, or one whole.

Introduction to the New Material *(6 minutes)*

1. **Say:** Today we will learn how to identify halves.
2. **Say:** When you divide an item or a number into two equal parts, those parts are called halves.
3. Draw:
4. **Say:** Here are 6 bananas.
5. **Say:** If I divide them into two equal parts, each part would have 3 bananas.
6. Draw:
7. **Say:** 3 bananas is one-half of 6 bananas.
8. **Say:** A half is when you take the total and divide it into 2 equal parts.

Guided Practice *(8 minutes)*

1. **Say:** Let's try it together.
2. Draw:
3. **Ask:** How many hands are there in total? (Answer: 8)
4. **Ask:** If I divide the hands into two equal parts, how many will be in each part? (Answer: 4)
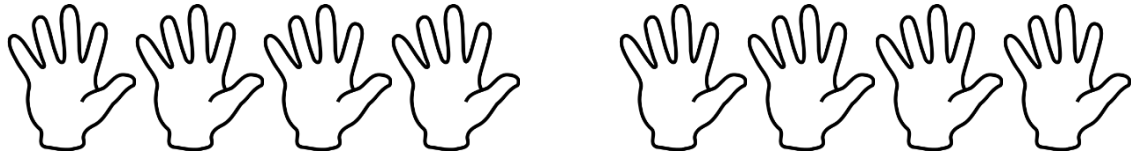
5. Draw:
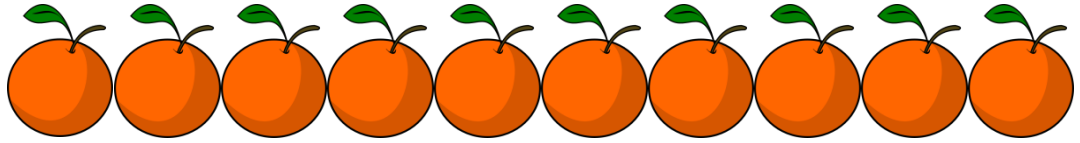
6. Draw:

7. **Ask:** How many oranges are there in total? (Answer: 10)

8. **Ask:** How do I work out one half of 10? (Answer: Divide into two equal parts)

9. Draw:
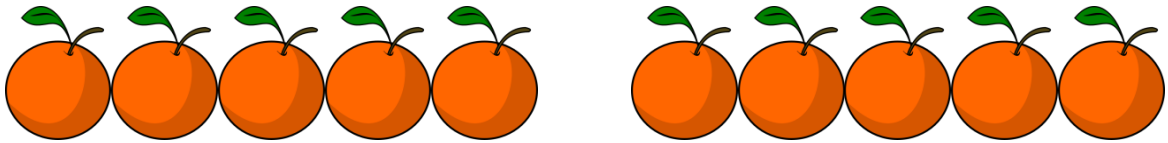
10. **Ask:** If I divide the oranges into two equal parts, how many will be in each part? (Answer: 5)

Independent Practice *(15 minutes)*

1. Draw the following on the board:

   4 butterflies (Answer: 2)   6 shoes (Answer: 3)

   8 children (Answer: 4)   10 hippos (Answer: 5)

2. **Say:** Draw the pictures on your paper as I have done on the board. Write down the total items in one half of each group of pictures.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to identify halves of quantities using pictures. In the next lesson we will make stories by drawing halves of pictures.

Lesson Title: Making Stories by Drawing Halves in Pictures	**Theme:** Number and Numeration: Fractions	
Lesson Number: M-01-089	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to draw halves of quantities.	**Teaching Aids** None	**Preparation** None

Opening *(3 minutes)*

1. **Say:** In the previous lesson we learnt how to identify halves using pictures. Today we will be drawing halves of quantities.

Introduction to the New Material *(6 minutes)*

1. **Say:** I went to the store and bought 8 pencils. If I have two children, I would like to give them each the same number of pencils.
2. **Say:** That means I will need to divide the 8 pencils into 2 groups, or halves, so they each receive the same amount.
3. **Say:** So I will draw the 8 pencils and then put them into 2 equal groups as I am drawing them.
4. Draw the pencils and divide into two groups. Count as you draw each pencil. Stop when you get to 8.
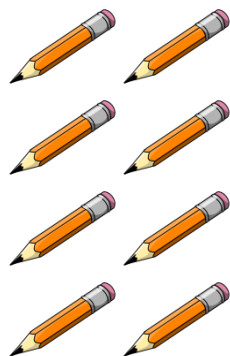
5. **Say:** I have drawn the 8 pencils and put them in two equal groups. Each group, or half, has 4 pencils. One half of 8 is 4. Each child would get 4 pencils.

Guided Practice *(6 minutes)*

1. **Say:** Let's try one together.
2. **Say:** I went to the market to purchase fruit for my 2 children. I purchased 10 limes. I want to work out how many limes each child will get.
3. **Ask:** How do I solve the problem? (Answer: Draw the limes and divide them into 2 equal groups)
4. Draw:
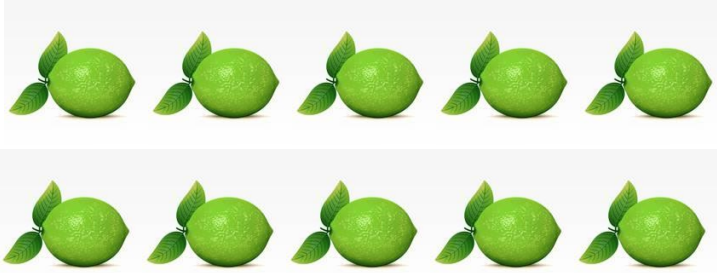
5. **Say:** 10 limes divided into halves equals 5 limes per half.

Independent Practice *(20 minutes)*

1. Write the following on the board.

   6 mangoes (Answer: 3)   8 butterflies (Answer: 4)
   12 limes (Answer: 6)   10 snakes (Answer: 5)
   4 shoes (Answer: 2)   2 children (Answer: 1)
2. **Say:** Work together with a partner to create a short story for each group of items.
3. **Say:** Draw the items, placing them into equal groups or halves. Write the number of items in each half.

Closing *(1 minute)*

1. **Say:** Today we created stories and drew pictures to show halves. In the next lesson we will begin learning about quarters.

Lesson Title: Identifying Quarters Using Pictures	Theme: Number and Numeration: Fractions	
Lesson Number: M-01-090	Class/Level: Class 1	Time: 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to identify quarters of quantities using pictures.		Teaching Aids One piece of fruit, cut in four equal parts		Preparation Cut one piece of fruit in four equal parts.

Opening *(4 minutes)*

1. Hold up the piece of fruit together as one piece.
2. **Say:** This is a _____. It is a whole _____. If I want 4 people to share it equally then I must cut it into 4 parts.
3. Separate the piece of fruit in quarters.
4. **Say:** I have divided the _____ in four equal parts. These parts are called quarters. 4 quarters equal one whole.

Introduction to the New Material *(6 minutes)*

1. **Say:** Today we will learn how to identify quarters.
2. **Say:** When you divide an item or a number into four equal parts, those parts are called quarters.
3. Draw:

4. **Say:** Here are 8 bananas.
5. **Say:** If I divide them into four equal parts, each part would have 2 bananas.
6. Draw:

7. **Say:** 2 bananas is one quarter of 8 bananas.
8. **Say:** A quarter is one of the parts when you take the total and divide it into 4 equal parts.

Guided Practice *(8 minutes)*

1. **Say:** Let's try it together.
2. Draw:

3. **Ask:** How many hands are there in total? (Answer: 4)
4. **Ask:** If I divide the hands into four equal parts, how many will be in each part? (Answer: 1)

5. Draw:
6. **Say:** One quarter of 4 is 1.
7. Draw:
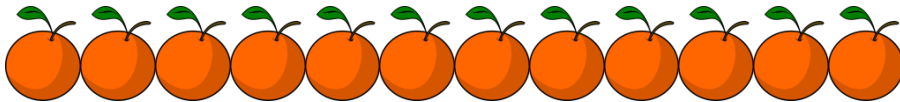
8. **Ask:** How many oranges are there in total? (Answer: 12)
9. **Ask:** How do I work out one quarter of 12? (Answer: Divide them into four equal parts.)
10. Draw:
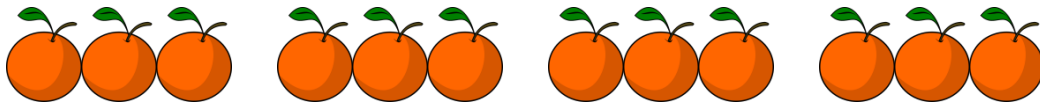
11. **Ask:** If I divide the oranges into four equal parts, how many will be in each part? (Answer: 3)
12. **Say:** One quarter of 12 is 3.

Independent Practice *(15 minutes)*

1. Draw the following on the board:
   4 butterflies (Answer: 2)   12 shoes (Answer: 6)
   8 children (Answer: 4)   16 snakes (Answer: 8)
2. **Say:** Draw the pictures on your paper as I have done on the board. Write down the total items in one quarter of each group of pictures.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to identify quarters of quantities using pictures. In the next lesson we will make stories by drawing quarters of pictures.

Lesson Title: Making Stories by Drawing Quarters in Pictures		**Theme:** Number and Numeration - Fractions	
Lesson Number: M-01-091		**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to draw quarters of quantities.		**Teaching Aids** None		**Preparation** None

Opening *(3 minutes)*

1. **Say:** In the previous lesson we learnt how to identify quarters using pictures. Today we will be drawing quarters of quantities.

Introduction to the New Material *(6 minutes)*

1. **Say:** I went to the store and bought 8 pencils. If I have 4 children, I would like to give them each the same amount of pencils.
2. **Say:** That means I will need to divide the 8 pencils into 4 groups, or quarters, so they each receive the same amount.
3. **Say:** So I will draw the 8 pencils and then put them into 4 equal groups as I am drawing them.
4. Draw the pencils and divide into 4 groups. Count as you draw each pencil. Stop when you get to 8.
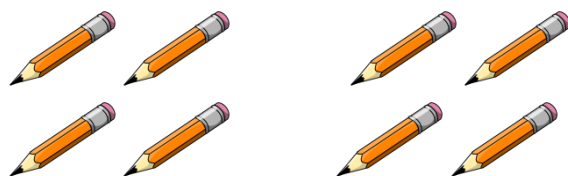
5. **Say:** I have drawn the 8 pencils and put them in four equal groups. Each group, or quarter, has 2 pencils. One quarter of 8 is 2. Each child would get 2 pencils.

Guided Practice *(6 minutes)*

1. **Say:** Let's try one together.
2. **Say:** I went to the market to purchase fruit for my 4 children. I purchased 16 limes. I want to work out how many limes each child will get.
3. **Ask:** How do I solve the problem? (Answer: Draw the limes and divide them into 4 equal groups)
4. Draw:

5. **Say:** 16 limes divided into quarters equals 4 limes per quarter.

Independent Practice *(20 minutes)*

1. Write the following on the board:

4 mangoes	(Answer: 1)	8 butterflies	(Answer: 2)
12 limes	(Answer: 3)	20 snakes	(Answer: 5)

2. **Say:** Work together with a partner to create a short story for each group of items.
3. **Say:** Draw the items, placing them into 4 equal groups, or quarters. Write the number of items in each quarter.

Closing *(1 minute)*

1. **Say:** Today we created stories and drew pictures to show quarters. In the next lesson we will learn how to share using halves and quarters.

Lesson Title: Sharing Using Halves and Quarters	**Theme:** Number and Numeration - Fractions	
Lesson Number: M-01-092	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to share quantities using halves and quarters.	**Teaching Aids** None	**Preparation** None

Opening *(3 minutes)*

1. **Say:** In the previous lesson we learnt how to draw quarters of quantities.
2. **Say:** Today we will learn how to share halves and quarters.

Introduction to the New Material *(6 minutes)*

1. **Say:** I went to the store and bought 12 pencils. Four children in the class asked to have a pencil. I would like to give them each a quarter of the pencils that I bought.
2. **Say:** That means I will need to divide the 12 pencils into 4 groups, or quarters, so they each receive the same amount.
3. **Say:** So I will draw the 12 pencils and then put them into 4 equal groups as I am drawing them.
4. Draw the pencils and divide into four groups. Count as you draw each pencil. Stop when you get to 12.
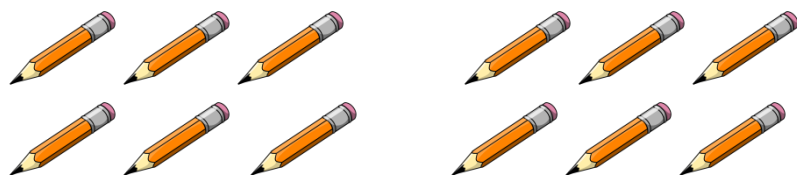
5. **Say:** I have drawn the 12 pencils and put them in four equal groups. Each group, or quarter, has 3 pencils. One quarter of 12 is 3. Each child would get 3 pencils.

Guided Practice *(6 minutes)*

1. **Say:** Let's try one together that involves halves.
2. **Say:** I went to the market to purchase fruit for my 2 children. I purchased 20 limes. I want to give them each half of the limes I have.
3. **Ask:** How do I solve the problem? (Answer: Draw the limes and divide them into 2 equal groups)
4. Draw:
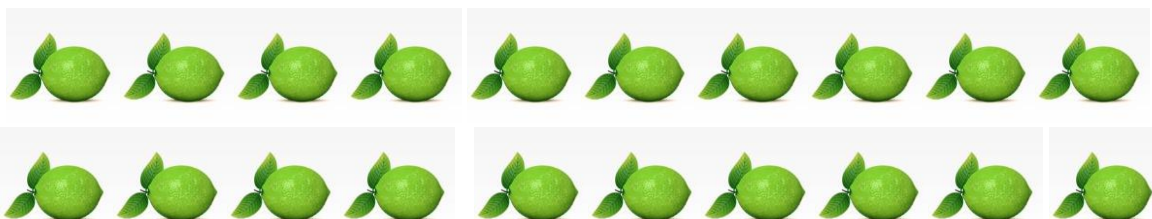
5. Ask: How many limes will each child get? (Answer: 10 limes)

Independent Practice *(20 minutes)*

1. Write the following on the board:

4 mangoes into quarters	(Answer: 1)	8 butterflies into halves	(Answer: 4)
12 limes into quarters	(Answer: 3)	20 snakes into quarters	(Answer: 5)

2. **Say:** Work together with a partner to create a short story for each group of items.
3. **Say:** Draw the items, placing them into halves or quarters, depending on the problem. Write the number of items in each group.

Closing *(1 minute)*

1. **Say:** Today we learnt how to share quantities using halves and quarters.
2. **Say:** In the next lesson we will be learning about addition up to 15.

Lesson Title: Using Counters to Add Numbers Up to 15	**Theme:** Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-093	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use counters to add numbers up to 15.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather counters for each pupil to have 15.

Opening *(1 minute)*

1. **Say:** Today we return to our learning about addition.
2. **Say:** We will begin learning how to use counters to add up to 15.

Introduction to the New Material *(8 minutes)*

1. **Say:** I have 5 counters in my hand.
2. Place the counters on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5
3. **Say:** I am going to add 7 more to them.
4. Place the counters on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5, 6, 7
5. **Say:** Now I will count how many I have all together. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
6. Write: 5 + 7 = 12 **Say:** 5 + 7 = 12
7. **Say:** Let's try another addition problem.
8. Write: 2 + 10 + 1 =
9. **Say:** I will start by placing 2 counters on the table.
10. Place 2 counters on the table and count each as you place it**. Say:** 1, 2
11. **Say:** I am going to add 10 more to them.
12. Place 10 more counters on the table next to the first and count each as you place it. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
13. **Say:** Now I will add one more.
14. Place one more counter on the table next to the first. **Say:** 1.
15. **Say:** Now I will count how many I have all together. **Say:** 1, 2 , 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
16. Finish the sum: 2 + 10 + 1 = 13 **Say:** 2 + 10 + 1 = 13

Guided Practice *(10 minutes)*

1. **Say:** Let's try the next addition sum together.
2. Write: 3 + 8 + 2 = **Say:** Write this sum on your paper.
3. Place 3 counters on the table in front of you counting each as you place it. **Say:** Place 3 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3.
4. **Say:** We are now going to add 8 more to them.
5. Place 8 more counters on the table next to the first and count each as you place it. **Say:** Place 8 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6, 7, 8
6. **Say:** Now we are going to add 2 more.

7. Place 2 more counters on the table next to the first and count each as you place it. **Say:** Place 2 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2
8. **Say:** Now let's count how many we have all together. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
9. Finish the sum: 3 + 8 + 2 = 13 **Say:** 3 + 8 + 2 = 13
10. **Say:** Write the answer to the sum.
11. **Say:** Let's do another one together.
12. Write 2 + 6 + 5 =
13. **Say:** Write this sum on your paper.
14. Place 2 counters on the table in front of you counting each as you place it. **Say:** Place 2 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2
15. **Say:** We are now going to add 6 more to them.
16. Place 6 more counters on the table next to the first and count each as you place it. **Say:** Place 6 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6
17. **Say:** We are now going to add 5 more.
18. Place 5 more counters on the table next to the first and count each as you place it. **Say:** Place 5 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5
19. **Say:** Now let's count how many we have all together. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
20. Finish the sum: 2 + 6 + 5 = 13 **Say:** 2 + 6 + 5 = 13
21. **Say:** Write the answer to the sum.

Independent Practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to add the counters together to solve addition sums up to 10.
2. Write the following sums on the board:
   a. 1 + 5 + 8 = (Answer: 14)
   b. 2 + 4 + 2 = (Answer: 8)
   c. 3 + 7 + 2 = (Answer: 12)
   d. 4 + 4 + 3 = (Answer: 11)
   e. 6 + 3 + 2 = (Answer: 11)
   f. 7 + 2 + 1 = (Answer: 10)
   g. 4 + 6 + 3 = (Answer: 13)
   h. 3 + 5 + 2 = (Answer: 10)
   i. 7 + 1 + 6 = (Answer: 14)
   j. 5 + 4 + 3 = (Answer: 12)

3. **Say:** First copy down the sums. Then use the counters to solve them. Write the answer to the sums on your paper.
4. Give pupils 13 minutes to work, then write the answers on the board.
5. **Say:** Check your answers. Give yourself a clap for each question you answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use counters to perform addition sums up to 15.
2. **Say:** In the next lesson we will use objects to perform addition sums up to 15.

Lesson Title: Using Real Objects to Add Numbers Up to 15	**Theme:** Everyday Arithmetic – Addition Up to 20		
Lesson Number: M-01-094	**Class/Level:** Class 1		**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use real objects to add numbers up to 15.		**Teaching Aids** Leaves and rocks		**Preparation** Gather 15 leaves and 15 rocks.

Opening *(1 minute)*

1. **Say:** In the previous lesson, we used counters to add numbers up to 15.
2. **Say:** Today we will use real object to add 2 numbers up to 15. Today I am going to use things I found outside, leaves and rocks.

Introduction to the New Material *(5 minutes)*

1. **Say:** I have 5 leaves in my hand.
2. Place the leaves on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5
3. **Say:** I am going to add 7 more to them.
4. Place the leaves on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5, 6, 7
5. **Say:** Now I will count how many I have altogether.
6. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
7. Write: 5 + 7 = 12 **Say:** 5 + 7 = 12
8. **Say:** Let's try another addition problem.
9. Write: 3 + 8 =
10. **Say:** I will start by placing 3 rocks on the table.
11. Place three rocks on the table and count each as you place it **Say:** 1, 2, 3
12. **Say:** I am going to add 8 more to them.
13. Place 8 more rocks on the table next to the first and count each as you place it. **Say:** 1, 2, 3, 4, 5, 6, 7, 8
14. **Say:** Now I will count how many rocks I have altogether.
15. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
16. Finish the sum: 3 + 8 = 11 **Say:** 3 + 8 = 11

Guided Practice *(8 minutes)*

1. **Say:** Let's try the next addition sum together.
2. Write: 7 + 7 =
3. **Say:** Write this sum on your paper.
4. **Say:** Count aloud with me as I place the leaves on the table.
5. **Say:** 1, 2, 3, 4, 5, 6, 7
6. **Say:** We are now going to add 7 more to them.
7. **Say:** Count aloud with me as I add 7 more.
8. **Say:** 1, 2, 3, 4, 5, 6, 7
9. **Say:** Now let's count how many we have altogether.

10. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
11. Finish the sum: 7 + 7 = 14 **Say:** 7 + 7 = 14
12. **Say:** Write the answer to the sum.
13. **Say:** Let's do another one together.
14. Write: 6 + 8 =
15. **Say:** Write this sum on your paper.
16. **Say:** I am going to place 6 rocks on the table.
17. **Say:** Count aloud with me as I place each rock.
18. **Say:** 1, 2, 3, 4, 5, 6
19. **Say:** We are now going to add 8 more.
20. **Say:** Count aloud with me as I add 8 more.
21. **Say:** 1, 2, 3, 4, 5, 6, 7, 8
22. **Say:** Now let's count how many rocks we have altogether.
23. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
24. Finish the sum: 6 + 8 = 14 **Say:** 6 + 8 = 14
25. **Say:** Write the answer to the sum.

Independent Practice *(20 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the addition sums.
2. **Say:** I will give you 5 minutes to gather 15 items between the two of you.
3. Take the pupils outside and give them 5 minutes to collect items. At the end of 5 minutes, signal for them to come back in to the classroom.
4. Write the following sums on the board:

    a. 5 + 8 = (Answer: 13)
    b. 8 + 2 = (Answer: 10)
    c. 7 + 6 = (Answer: 13)
    d. 10 + 3 = (Answer: 13)
    e. 9 + 3 = (Answer: 12)
    f. 4 + 7 = (Answer: 11)

5. **Say:** First you will copy down the sums on your paper.
6. **Say:** Then you will use your items to solve the sums.
7. **Say:** Write the answer to the sums on your paper.
8. Give pupils 15 minutes to solve the sums.
9. Ask for 6 volunteers to write their answers on the board.
10. **Say:** Give a thumbs up if you got the same answer as your friends.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use real objects to perform addition problems up to 15
2. **Say:** In the next lesson we will use our fingers to add numbers up to 15.

Lesson Title: Using Fingers to Add Numbers Up to 15	**Theme:** Everyday Arithmetic – Addition Up to 10	
Lesson Number: M-01-095	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use their fingers to add numbers up to 15.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In our previous lessons we have learnt how to add using counters and objects adding up to 15.
2. **Say:** Today we will use our fingers to solve addition sums.

Introduction to the New Material *(8 minutes)*

1. Write: 8 + 3 =
2. Hold 8 fingers up. **Say:** Here are 8 fingers. 1, 2, 3, 4, 5, 6, 7, 8.
3. **Say:** I am going to add 3 more to them.
4. **Say:** But wait, I can't add 3 more because I only have 2 left.
5. **Ask:** Who would like to help me out?
6. Call a pupil with hand raised to the front to help out.
7. **Say:** I have 8 fingers on this hand and I need to add 3.
8. **Say:** _____ (pupil's name) is going to hold up 3 fingers to help me out.
9. Hold up 8 fingers.
10. **Say:** Now we will count all our fingers. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
11. Write: 8 + 3 = 11 **Say:** 8 + 3 = 11
12. Write: 10 + 5 =
13. Hold 10 fingers up. **Say:** Here are 10 fingers. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
14. **Say:** I've run out of fingers and need to add 5 more so I will borrow _____(pupil's name) fingers.
15. **Say:** _____ (pupil's name) please hold up 5 fingers.
16. Hold up 10 fingers. **Say:** Here are my 10 fingers.
17. **Say:** Now we will count all our fingers.
18. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
19. Write: 10 + 5 = 15 **Say:** 10 + 5 = 15

Guided Practice *(12 minutes)*

1. **Say:** Let's try the next addition sums together.
2. **Say:** Please find a partner to work with.
3. Give pupils a minute to find a partner.
4. Write: 8 + 4 = **Say:** Our sum is 8 + 4 =
5. **Say:** Work with your partner and decide who will hold up 8 fingers.
6. **Say:** Now are we going to add 4 more fingers.

7. **Say:** The other partner should now hold up 4 fingers.
8. **Say:** Let's count all the fingers. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
9. Write: 8 + 4 = 12 **Say:** 8 + 4 = 12
10. **Say:** Let's try another one.
11. Write: 7 + 6 = **Say:** Our sum is 7 + 6 =
12. **Say:** Work with your partner and decide who will hold up 7 fingers.
13. **Say:** Now are we going to add 6 more fingers.
14. **Say:** The other partner should now hold up 6 fingers.
15. **Say:** Let's count all the fingers. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
16. Write: 7 + 6 = 13 **Say**: 7 + 6 = 13

Independent Practice *(13 minutes)*

1. Write these sums on the board:

    a. 7 + 5 = (Answer: 12)
    b. 6 + 4 = (Answer: 10)
    c. 3 + 9 = (Answer: 12)
    d. 6 + 6 = (Answer: 12)
    e. 7 + 3 = (Answer: 10)
    f. 7 + 6 = (Answer: 13)
    g. 4 + 8 = (Answer: 12)
    h. 9 + 5 = (Answer: 14)
    i. 8 + 3 = (Answer: 11)
2. **Say:** You are going to work with your partner to solve the sums.
3. **Say:** First copy down the sums onto your paper.
    Say: Together with your partner, use your fingers to solve the addition sums.
4. **Say:** Write the answers to the sums on your paper.
5. Give pupils 12 minutes to solve the sums in pairs.
6. Write the answers on the board.
7. **Say:** Check your answers. Give your partner a thumbs up for working well today.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use fingers to perform addition sums up to 15.
2. **Say:** In the next lesson we will use counters to add numbers up to 20.

Lesson Title: Using Counters to Add Numbers Up to 20	**Theme:** Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-096	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use counters to add numbers up to 20.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather enough counters for each pupil to have 20.

Opening *(1 minute)*

1. **Say:** Today we will continue to learn how to add larger numbers.
2. **Say:** We will begin learning how to use counters to add up to 20.

Introduction to New Material *(8 minutes)*

1. **Say:** I have 5 counters in my hand.
2. Place the counters on the table in front of you, counting 1 at a time. **Say:** 1, 2, 3, 4, 5
3. **Say:** I am going to add 7 more to them.
4. Place the counters on the table in front of you, counting 1 at a time. **Say:** 1, 2, 3, 4, 5, 6, 7
5. **Say:** I am going to add 4 more to them.
6. Place the counters on the table in front of you, counting 1 at a time. **Say:** 1, 2, 3, 4
7. **Say:** Now I will count how many I have altogether.
8. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
9. Write: 5 + 7 + 4 = 16 **Say:** 5 + 7 + 4 = 16
10. **Say:** Let's try another addition sum.
11. Write: 2 + 10 + 5 = **Say:** I will start by placing 2 counters on the table.
12. Place 2 counters on the table and count each as you place it **Say:** 1, 2
13. **Say:** I am going to add 10 more to them.
14. Place 10 more counters on the table next to the first and count each as you place it. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 **Say:** Now I will add 5 more.
15. Place 5 more counters on the table in front of you, counting 1 at a time. **Say:** 1, 2, 3, 4, 5.
16. **Say:** Now I will count how many I have altogether. **Say:** 1, 2 ,3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
17. Finish the sum: 2 + 10 + 5 = 17 **Say:** 2 + 10 + 5 = 17

Guided practice *(10 minutes)*

1. **Say:** Let's try the next addition sums together.
2. Write: 3 + 8 + 7 = **Say:** Write this sum on your paper.
3. Place 3 counters on the table in front of you counting each as you place it. **Say:** Place 3 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3
4. **Say:** We are now going to add 8 more to them.

5. Place 8 more counters on the table next to the first and count each as you place it. **Say:** Place 8 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6, 7, 8

6. **Say:** Now we are going to add 7 more

7. Place 7 more counters on the table next to the first and count each as you place it. **Say:** Place 7 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6, 7

8. **Say:** Now let's count how many we have all together. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18

9. Finish the sum: 3 + 8 + 7 = 18 **Say:** 3 + 8 + 7 = 18 **Say:** Write the answer to the sum.

10. **Say:** Let's do another one together.

11. Write: 2 + 6 + 9 = **Say:** Write this sum on your paper.

12. Place 2 counters on the table in front of you counting each as you place it. **Say:** Place 2 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2

13. **Say:** We are now going to add 6 more to them.

14. Place 6 more counters on the table next to the first and count each as you place it. **Say:** Place 6 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6

15. **Say:** We are now going to add 9 more.

16. Place 9 more counters on the table next to the first and count each as you place it. **Say:** Place 9 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9

17. **Say:** Now let's count how many we have all together. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

18. Finish the sum: 2 + 6 + 9 = 17 **Say:** 2 + 6 + 9 = 17 **Say:** Write the answer to the sum.

Independent practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to add the counters together to solve addition sums up to 20.

2. Write the following sums on the board:

    a. 3 + 5 + 8 = (Answer: 16)   f. 7 + 6 + 1 = (Answer: 14)
    b. 2 + 8 + 2 = (Answer: 12)   g. 4 + 6 + 6 = (Answer: 16)
    c. 4 + 7 + 6 = (Answer: 17)   h. 7 + 8 + 2 = (Answer: 17)
    d. 4 + 10 + 3 = (Answer: 17)   i. 8 + 7 + 4 = (Answer: 19)
    e. 9 + 3 + 6 = (Answer: 18)   j. 4 + 9 + 3 = (Answer: 16)

3. **Say:** First copy the sums on your paper. Then use the counters to solve them. Write the answer to the sums on your paper.

4. Give pupils 14 minutes to work, then write the answers on the board.

5. **Say:** Check your answers. Show me with your fingers how many you answered correctly.

Closing *(1 minute)*

1. **Say:** Well done, today we learnt how to use counters to perform addition sums up to 20.

2. **Say:** In the next lesson we will use objects to perform addition sums up to 20.

Lesson Title: Using Real Objects to Add 2 Numbers Up to 20	Theme: Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-097	Class/Level: Class 1	Time: 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use real objects to add numbers up to 20.	Teaching Aids Leaves and rocks	Preparation Gather 20 leaves and 20 rocks.

Opening *(1 minute)*

1. **Say:** In the previous lesson we used counters to add numbers up to 20.
2. **Say:** Today we will use real object to add 2 numbers up to 20. Today we are going to use more things I found outside: leaves, rocks and sticks.

Introduction to the New Material *(5 minutes)*

1. **Say:** I have 7 leaves in my hand.
2. Place the leaves on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5, 6, 7
3. **Say:** I am going to add 8 more to them.
4. Place the leaves on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5, 6, 7, 8
5. **Say:** Now I will count how many I have altogether.
6. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
7. Write: 7 + 8 = 15 **Say:** 7 + 8 = 15
8. **Say:** Let's try another addition sum.
9. Write: 8 + 9 =
10. **Say:** I will start by placing 8 rocks on the table.
11. Place 8 rocks on the table and count each as you place it **Say:** 1, 2, 3, 4, 5, 6, 7, 8
12. **Say:** I am going to add 9 more to them.
13. Place eight more rocks on the table next to the first and count each as you place it. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9
14. **Say:** Now I will count how many rocks I have altogether.
15. **Say:** 1, 2 ,3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
16. Finish the sum: 8 + 9 = 17 **Say:** 8 + 9 = 17

Guided Practice *(8 minutes)*

1. **Say**: Let's try the next addition sum together.
2. Write: 9 + 7 =
3. **Say:** Write this sum on your paper.
4. **Say**: Count aloud with me as I place the leaves on the table. **Say**: 1, 2, 3, 4, 5, 6, 7, 8, 9
5. **Say:** We are now going to add 7 more to them.
6. **Say:** Count aloud with me as I add 7 more. **Say**: 1, 2, 3, 4, 5, 6, 7
7. **Say**: Now let's count how many we have altogether.
8. **Say**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
9. Finish the sum: 9 + 7 = 16 **Say**: 9 + 7 = 16

10. **Say**: Write the answer to the sum.
11. **Say**: Let's do another one together.
12. Write: 16 + 3 =
13. **Say**: Write this sum on your paper.
14. **Say**: I am going to place 16 rocks on the table.
15. **Say**: Count aloud with me as I place each rock. **Say**: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
16. **Say:** We are now going to add 3 more.
17. **Say**: Count aloud with me as I add 3 more. **Say**: 1, 2, 3
18. **Say**: Now let's count how many rocks we have altogether.
19. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19
20. Finish the sum: 16 + 3 = 19 **Say:** 16 + 3 = 19
21. **Say:** Write the answer to the sum.

Independent practice *(20 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the addition sums.
2. **Say:** I will give you 5 minutes to gather 20 items between the two of you.
3. Take the pupils outside and give them 5 minutes to collect items. At the end of 5 minutes, signal for them to come back in to the classroom.
4. Write the following sums on the board:
    a. 15 + 3 = (Answer: 18)
    b. 11 + 2 = (Answer: 13)
    c. 9 + 6 = (Answer: 15)
    d. 10 + 8 = (Answer: 18)
    e. 5 + 13 = (Answer: 18)
    f. 8 + 8 = (Answer: 16)

5. **Say:** First you will copy down the sums on your paper.
6. **Say:** Then you will use your items to solve the sums.
7. **Say:** Write the answer to the sums on your paper.
8. Give pupils 15 minutes to solve the sums, then write the answers on the board.
9. **Say:** Show me with your fingers how many you answered correctly. Pat yourself on the back for trying your best.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use real objects to perform addition sums up to 20.
2. **Say:** In the next lesson we will use counters to add 2 numbers that sum to 20.

Lesson Title: Using Counters to Add 2 Numbers that Sum to 20	**Theme:** Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-098	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use counters to add 2 numbers that sum to 20.		Teaching Aids Counters (beads, stones)		Preparation Gather enough counters for each pupil to have 20.

Opening *(1 minute)*

1. **Say:** In our previous lessons we have been learning how to add numbers up to 20.
2. **Say:** Today we will be learning how to add 2 numbers that equal exactly 20.

Introduction to the New Material *(8 minutes)*

1. **Say:** I have 5 counters in my hand.
2. Place the counters on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5
3. **Say:** Now I need to find out how many counters I need to add to 5 to reach 20. I will put them in a separate pile.
4. Write: 5 + ___ = 20
5. **Say:** 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
6. **Say:** Now I need to count how many are in the second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
7. **Say:** I added 15 to 5 to equal 20.
8. Finish the sum: 5 + 15 = 20 **Say:** 5 + 15 = 20
9. **Say:** Let's try another addition sum. **Say:** I will start by placing 11 counters on the table.
10. Place 11 counters on the table and count each as you place it **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
11. **Say:** Now I need to find out how many counters I need to add to 11 to reach 20. I will put them in a separate pile.
12. Write: 11 + ___ = 20
13. **Say:** 12, 13, 14, 15, 16, 17, 18, 19, 20
14. **Say:** Now I need to count how many are in the second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9
15. **Say:** I added 9 to 11 to equal 20
16. Finish the sum: 11 + 9 = 20 **Say:** 11 + 9 = 20

Guided Practice *(10 minutes)*

1. **Say:** Let's try the next addition sums together.
2. Write: 7 + _____ = 20 **Say:** Write this sum on your paper.
3. Place 7 counters on the table in front of you counting each as you place it. **Say:** Place 7 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6, 7
4. **Say:** Now we need to find out how many counters we need to add to 7 to reach 20. We will put them in a separate pile.
5. **Say:** Let's count together until we reach 20. **Say:** 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
6. **Say:** Now we need to count how many counters are in our second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

7. **Say:** There are 13 counters in our second pile.
8. **Say:** That means we add 13 to 7 to equal 20.
9. Finish the sum: 7 + 13 = 20 **Say:** Finish the sum on your paper by filling in the blank with 13.
10. **Say:** 7 + 13 = 20
11. Write: 6 + _____ = 20 **Say:** Write this sum on your paper.
12. Place 6 counters on the table in front of you counting each as you place it. **Say:** Place 6 counters on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6
13. **Say:** Now we need to find out how many counters we need to add to 6 to reach 20. We will put them in a separate pile.
14. **Say:** Let's count together until we reach 20. **Say:** 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
15. **Say:** Now we need to count how many counters are in our second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
16. **Say:** There are 14 counters in our second pile. **Say:** That means we add 14 to 6 to equal 20.
17. Finish the sum: 6 + 14 = 20 **Say:** Finish the sum on your paper by filling in the blank with 14.
18. **Say:** 6 + 14 = 20

Independent Practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to work out what numbers you need to add together to equal 20.
2. Write the following sums on the board:

   a. 3 + ___ = 20 (Answer: 17)
   b. 8 + ___ = 20 (Answer: 12)
   c. 4 + ___ = 20 (Answer: 16)
   d. 10 + ___ = 20 (Answer: 10)
   e. 13 + ___ = 20 (Answer: 7)
   f. 18 + ___ = 20 (Answer: 2)
   g. 15 + ___ = 20 (Answer: 5)
   h. 3 + ___ = 20 (Answer: 17)

3. **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use the counters to solve the sums.
5. **Say:** Write the answer to the sums on your paper.
6. Give pupils 14 minutes to work, then write the answers on the board.
7. **Say:** Check your answers. Give yourself a clap for each question you answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt what numbers add together to equal 20.
2. **Say:** In the next lesson we will use objects to perform addition sums up to 20.

Lesson Title: Using Real Objects to Numbers that Sum to 20	**Theme:** Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-099	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use real objects to add 2 numbers that sum up to 20.	**Teaching Aids** Leaves and sticks	**Preparation** Gather 20 leaves and 20 sticks.

Opening *(1 minute)*

1. **Say:** In the previous lesson we used counters to add numbers up to 20.
2. **Say:** Today we will use real object to add 2 numbers that sum up to exactly 20. Today I am going to use things I found outside: leaves and sticks.

Introduction to the New Material *(5 minutes)*

1. **Say:** I have 9 leaves in my hand.
2. Place the leaves on the table in front of you, counting 1 at a time. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9
3. **Say:** Now I need to find out how many leaves I need to add to 9 to reach 20. I will put them in a separate pile.
4. Write: 9 + ___ = 20
5. **Say:** 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
6. **Say:** Now I need to count how many are in the second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
7. **Say:** I added 11 to 9 to equal 20.
8. Finish the sum: 9 + 11 = 20 **Say:** 9 + 11 = 20
9. **Say:** Let's try another addition sum. **Say:** I will start by placing 10 sticks on the table.
10. Place 10 sticks on the table and count each as you place it **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
11. **Say:** Now I need to find out how many sticks I need to add to 10 to reach 20. I will put them in a separate pile.
12. Write: 10 + ___ = 20
13. **Say:** 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
14. **Say:** Now I need to count how many are in the second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
15. **Say:** I added 10 to 10 to equal 20
16. Finish the sum: 10 + 10 = 20 **Say:** 10 + 10 = 20

Guided Practice *(12 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the addition sums.
2. **Say:** I will give you 5 minutes to gather 20 items between the 2 of you.
3. Take the pupils outside and give them 5 minutes to collect items. At the end of 5 minutes, signal for them to come back in to the classroom.
4. **Say:** Let's try the next addition sums together.

5. Write: 3 + _____ = 20 **Say:** Write this sum on your paper.
6. Place 3 items on the table in front of you counting each as you place it. **Say:** Place 3 items on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3
7. **Say:** Now we need to find out how many items we need to add to 3 to reach 20. We will put them in a separate pile.
8. **Say:** Let's count together until we reach 20. **Say:** 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
9. **Say:** Now we need to count how many items are in our second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
10. **Say:** There are 17 items in our second pile. **Say:** That means we add 17 to 3 to equal 20.
11. Finish the sum: 3 + 17 = 20 **Say:** Finish the sum on your paper by filling in the blank with 13.
12. **Say:** 3 + 17 = 20
13. Write: 6 + _____ = 20 **Say:** Write this sum on your paper.
14. Place 6 items on the table in front of you counting each as you place it. **Say:** Place 6 items on the table in front of you, one at a time, and count aloud with me. **Say:** 1, 2, 3, 4, 5, 6
15. **Say:** Now we need to find out how many items we need to add to 6 to reach 20. We will put them in a separate pile.
16. **Say:** Let's count together until we reach 20. **Say:** 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
17. **Say:** Now we need to count how many items are in our second pile. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
18. **Say:** There are 14 items in our second pile. **Say:** That means we add 14 to 6 to equal 20.
19. Finish the sum: 6 + 14 = 20 **Say:** Finish the sum on your paper by filling in the blank with 14.
20. **Say:** 6 + 14 = 20

Independent Practice *(16 minutes)*

1. You will now work with your partner to solve the following sums.
2. Write the following sums on the board:
   a. 13 + __ = 20 (Answer: 7)
   b. 8 + __ = 20 (Answer: 12)
   c. 12 + __ = 20 (Answer: 8)
   d. 10 + __ = 20 (Answer: 10)
   e. 14 + __ = 20 (Answer: 6)
   f. 4 + __ = 20 (Answer: 16)
3. **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use your items to solve the sums with your partner.
5. Give pupils 15 minutes to work, then write the answers on the board.
6. **Say:** Check your answers. Give your partner a thumbs up for working hard today.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use real objects to perform addition sums that sum up to 20.
2. **Say:** In the next lesson we will solve word sum using addition up to 20.

Lesson Title: Word Problems Using Addition Up to 20	**Theme:** Everyday Arithmetic – Addition Up to 20	
Lesson Number: M-01-100	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to make up one-step word problems using addition up to 20.		**Teaching Aids** Counters		**Preparation** 20 counters for each pupil

Opening *(1 minute)*

1. **Say:** In our previous lessons we learnt how to add numbers up to 20 using counters and objects.
2. **Say:** Today we are going to create word problems using addition up to 20.

Introduction to the New Material *(8 minutes)*

1. Write: 10 + 5 =
2. **Say:** I am now going to create a word problem to go with the sum 10 + 5 =
3. **Say:** Mohamed carried 10 books from his classroom to the head teacher's office. He then carried 5 more books to the head teacher's office. How many books did he carry in total?
4. **Say:** Now we can solve the word problem. I will use counters to help me solve it.
5. **Say:** Here are 10 counters for the ten books he carried.
6. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
7. **Say:** Here are 5 counters for the additional five books he carried.
8. **Say:** 1, 2, 3, 4, 5
9. **Say:** Now we can count them all. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
10. Write 10 + 5 = 15
11. **Say:** 10 + 5 = 15 Mohamed carried 15 books.
12. Write: 12 + 3 =
13. **Say:** Now I'm going to create a word problem to go along with the sum 12 + 3 =
14. **Say:** Mamie found 12 flowers on her way to school. She then found 3 more. How many flowers did she find altogether?
15. **Say:** Now we can solve the word problem. I will use counters to us me solve it.
16. **Say:** Here are 12 counters for the 12 flowers she found.
17. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
18. **Say:** Here are 3 counters for the additional 3 flowers she found.
19. **Say:** 1, 2, 3
20. **Say:** Now we can count them all. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
21. Write: 12 + 3 = 15
22. **Say:** 12 + 3 = 15 She found 15 flowers.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some together.
2. Write: 12 + 4 =
3. **Say:** Now we can create a word problem to go with the sum 12 + 4 =
4. **Ask:** Who would like to share a word problem to go along with the sum?

5. Call on a volunteer to share a word problem. Make sure they use the quantities 12 and 4.
6. Restate the word problem shared by the pupil.
7. **Say:** Now we can solve the word problem. We will use counters to help us.
8. **Say:** Here are 12 counters for _____ (refer to word problem given by pupil)
9. Count 12 counters aloud. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
10. **Say:** Here are 4 counters for _____ (refer to word problem given by pupil).
11. Count 4 counters aloud. 1, 2, 3, 4.
12. **Say:** Now please count them all with me together. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.
13. Write: 12 + 4 = 16
14. **Say:** 12 + 4 = 16 Our answer is 16.

Independent Practice *(15 minutes)*

1. Write the following sums:
    a. 14 + 3 = (Answer: 17)
    b. 15 + 4 = (Answer: 19)
    c. 9 + 7 = (Answer: 16)
2. **Say:** Copy down the sums written here on the board.
3. **Say:** Work with a partner to create word problems for each of the sums.
4. **Say:** Find the answer for each problem and write it down on your paper.
5. Give pupils 12 minutes to work, then write the answers on the board.
6. Ask 3 pairs to share their word problems with the class.

Closing *(1 minute)*

1. **Say:** Today we learnt how to create one-step word problems from sums for numbers up to 20.
2. **Say:** In the next lesson we will continue practicing addition of numbers up to 20.

Lesson Title: Addition Sums Using Correct Mathematical Symbols	**Theme:** Numbers and Numeration – Addition Up to 20	
Lesson Number: M-01-101	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to write and solve addition sums using correct mathematical symbols.		**Teaching Aids** None		**Preparation** None

Opening *(1 minute)*

1. **Say:** We have been practicing solving addition sums up to 20 using counters, objects, and our fingers.
2. **Say:** Today we will continue to practice writing addition sums using symbols.

Introduction to the New Material *(8 minutes)*

1. Write: 10 8
2. **Say:** I have the numbers 10 and 8.
3. **Say:** I need to add the correct symbols to make this an addition sum.
4. Place a plus sign between the 10 and the 8. 10 + 8
5. **Say:** I have placed a plus sign between the 10 and the 8. That shows I am going to add.
6. Place an equal sign at the end of the sum. 10 + 8 =
7. **Say:** I have placed an equal sign at the end of the sum. That tells me that the answer is going to come next.
8. **Say:** Now I will use my fingers to solve the sum.
9. Show 10 fingers.
10. **Say:** Here are 10.
11. **Say:** Now I need to add 8 more. I can use the same fingers to add 8 more.
12. Bend one finger at a time as you say a number.
13. **Say:** 11, 12, 13, 14, 15, 16, 17, 18
14. Write: 10 + 8 = 18
15. **Say:** 10 plus 8 equals 18
16. **Say:** I will show you another one.
17. Write: 8   6
18. **Say:** I have the numbers 8 and 6.
19. **Say:** I need to add the correct symbols to make this an addition sum.
20. Place a plus sign between the 8 and the 6. 8 + 6
21. **Say:** I have placed a plus sign between the 8 and the 6. That shows I am going to add.
22. Place an equal sign at the end of the sum. 8 + 6 =
23. **Say:** I have placed an equal sign at the end of the sum. That tells me that the answer is going to come next.
24. **Say:** Now I will use my fingers to solve the sum.
25. **Say:** Starting at the number 8.
26. **Say:** 9, 10, 11, 12, 13, 14.

27. Write: 8 + 6 = 14 **Say:** 8 plus 6 equals 14.

Guided Practice *(10 minutes)*

1. Write: 7   4
2. **Say:** We have the numbers 7 and 4.
3. **Ask:** What do we need to do first? (Answer: Add the plus sign)
4. Place a plus sign between the 7 and the 4. 7 + 4
5. **Say:** I have place a plus sign between the 7 and the 4. That shows us we are going to add.
6. **Ask:** What do we do next? (Answer: Add the equals sign)
7. Place an equal sign at the end of the sum. 7 + 4 =
8. **Say:** I have placed an equal sign at the end of the sum. That tells us that the answer is going to come next.
9. **Say:** Now we will use our fingers to solve the sum.
10. **Say:** Starting at the number 7, we need to add 4 more.
11. **Say:** 8, 9, 10, 11
12. Write: 7 + 4 = 11 **Say:** 7 + 4 = 11

Independent Practice *(15 minutes)*

1. **Say:** You are now going to work on your own. You will use the numbers below and add the correct symbols to make addition sums. You may then use your fingers or counters to solve the sums.
2. Write the following sets of numbers on the board:
    a. 11   5 (Answer: 11 + 5 = 16)
    b. 12   4 (Answer: 12 + 4 = 16)
    c. 13   2 (Answer: 13 + 2 = 15)
    d. 8   4 (Answer: 8 + 4 = 12)
    e. 6   5 (Answer: 6 + 5 = 11)
    f. 17   2 (Answer: 17 + 2 = 19)
    g. 3   16 (Answer: 3 + 16 = 19)
    h. 3   15 (Answer: 3 + 15 = 18)
    i. 10   1 (Answer: 10 + 1 = 11)
3. **Say:** Write the sets of numbers in your book. Add the correct symbols and then solve each sum.
4. **Say:** Make sure to write the answer once you have solved the sum.
5. Give pupils 14 minutes to work, then write the answers on the board.
6. **Say:** Check your answers. Show me with your fingers how many you answered correctly.

Closing *(1 minute)*

1. **Say:** Today we continued to practice writing addition sums using mathematical symbols.
2. **Say:** In the next lesson we will solve sums and read them aloud.

Lesson Title: More Addition Sums Using Correct Mathematical Symbols	**Theme:** Numbers and Numeration – Addition Up to 20	
Lesson Number: M-01-102	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to write, read, and solve addition sums using correct mathematical symbols.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In the previous lesson we reviewed how to write addition sums using mathematical symbols.
2. **Say:** Today we will solve addition sums and read them aloud.

Introduction to the New Material *(8 minutes)*

1. Write: 9 + 8 =
2. **Say:** First I am going to show you how to read the addition sum.
3. **Say:** This sum says 9 plus 8 equals
4. **Say:** The symbol between the 9 and the 8 is the plus sign, so I used the word 'plus'.
5. Write 'plus' on the board.
6. **Say:** The sign at the end of the sum is the equal sign, so I used the word 'equals'.
7. Write 'equals' on the board.
8. **Say:** I can use my fingers or counters to solve the sum.
9. **Say:** Starting at 9, I will add 8. 10, 11, 12, 13, 14, 15, 16, 17
10. **Say:** The answer is 17. 9 plus 8 equals 17.
11. Write: 9 + 8 = 17
12. Write: 12 + 4 =
13. **Say:** This sum says '12 plus 4 equals'.
14. **Say:** The symbol between the 12 and the 4 is the plus sign, so I used the word 'plus'.
15. **Say:** The sign at the end of the sum is the equal sign, so I used the word 'equals'.
16. **Say:** I can use my fingers or counters to solve the sum.
17. **Say:** Starting at 12, I will add 4. 13, 14, 15, 16.
18. **Say:** The answer is 16. 12 plus 4 equals 16.
19. Write: 12 + 4 = 16
20. **Say:** 12 plus 4 equals 16.

Guided Practice *(10 minutes)*

1. Write: 13 + 3 =
2. **Ask:** Who can read this sum? (Answer: 13 plus 3 equals)
3. **Say:** 13 plus 3 equals.
4. **Ask:** What do we do next? (Answer: Solve the sum by adding the numbers together.)
5. **Say:** Use your fingers to solve the sum by adding the numbers together.

6. **Ask:** What is the answer? (Answer: 16)
7. Write: 13 + 3 = 16
8. **Say:** 13 plus 3 equals 16.
9. Write: 12 + 3 =
10. **Ask:** Who can read this sum? (Answer: 12 plus 3 equals)
11. **Say:** 12 plus 3 equals.
12. **Ask:** What do we do next? (Answer: Solve the sum by adding the numbers together.)
13. **Say:** Use your fingers to solve the sum by adding the numbers together.
14. **Ask:** What is the answer? (Answer: 15)
15. Write: 12 + 3 = 15
16. **Say:** 12 plus 3 equals 15.

Independent Practice *(15 minutes)*

1. **Say:** You are now going to work with a partner. You will take turns reading the addition sums aloud. You will both solve the sums.
2. Write the following sums on the board:
    a. 13 + 5 = (Answer: 18)
    b. 12 + 2 = (Answer: 14)
    c. 16 + 4 = (Answer: 20)
    d. 9 + 8 = (Answer: 17)
    e. 7 + 7 = (Answer: 14)
    f. 4 + 11 = (Answer: 15)
    g. 8 + 8 = (Answer: 16)
3. 5 + 9 = (Answer: 14)

4. **Say:** Write the sums in your book. Take turns reading them aloud. Write the answers in your book.
5. Give pupils 14 minutes to work, then write the answers on the board.
6. **Say:** Check your partner's answers. Give them a clap for each question they answered correctly.

Closing *(1 minute)*

1. **Say:** Today we practiced reading addition sums aloud and solving them.
2. **Say:** In the next lesson we will be returning to subtraction.

Lesson Title: Using Counters to Subtract Numbers Up to 15	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-103	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to use counters to subtract numbers up to 15.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather counters for each pupil to have 15 each.

Opening *(1 minute)*

1. **Say:** Today we return our learning to subtraction.
2. **Say:** We will begin learning how to use counters to subtract up to 15.

Introduction to the New Material *(8 minutes)*

1. Write: 15 – 7 =
2. **Say:** I have 15 counters in my hand.
3. Place the counters on the table in front of you, counting one at a time. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
4. **Say:** I am going to subtract 7 from them. 1, 2, 3, 4, 5, 6, 7.
5. Take away 7 of the 15 counters.
6. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8.
7. Write: 15 – 7 = 8
8. **Say:** I took 7 counters away from 15 and I have 8 left.
9. Write: 12 - 7 =
10. **Say:** Here are 12 counters. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
11. **Say:** I am going to subtract 7 from them. 1, 2, 3, 4, 5, 6, 7.
12. Take away 7 of the 12 counters.
13. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5.
14. Write: 12 – 7 = 5
15. **Say:** I took 7 counters away from 12 and I have 5 left.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some subtraction sums together.
2. Write: 12 – 2 =
3. **Say:** We are going to place 12 counters in a pile on ours desks. We will count together as we place the counters.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
5. **Say:** Now we are going to take 2 away. 1, 2.
6. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
7. Write: 12 – 2 = 10
8. **Say:** We took 2 counters away from 12 and we have 10 left.
9. Write: 15 – 9 =

10. **Say:** We are going to place 15 counters in a pile on ours desks. We will count together as we place the counters.
11. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
12. **Ask:** How many are we going to take away? (Answer: 9)
13. **Say:** Let's count together as we take 9 away. 1, 2, 3, 4, 5, 6, 7, 8, 9.
14. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6.
15. Write: 15 – 9 = 6
16. **Say:** We took 9 counters away from 15 and we have 6 left.

Independent Practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to solve subtraction sums.
    a. Write the following sums on the board:
    b. 13 – 11 = (Answer: 2)
    c. 14 – 8 = (Answer: 6)
    d. 15 – 7 = (Answer: 8)
    e. 12 – 6 = (Answer: 6)
    f. 11 – 9 = (Answer: 2)
    g. 14 – 3 = (Answer: 11)
    h. 13 – 4 = (Answer: 9)
    i. 12 – 9 = (Answer: 3)
2. **Say:** First you will copy down the sums on your paper.
3. **Say:** Then you will use the counters to solve the sums.
4. **Say:** Write the answers to the sums on your paper.
5. Give pupils 14 minutes to work then invite 8 volunteers (4 boys and 4 girls) to write the answers on the board.
6. **Say:** Check your answers. Show me with your fingers how many you answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use counters to perform subtraction sums up to 15
2. **Say:** In the next lesson we will use objects to perform subtraction sums up to 15.

Lesson Title: Using Real Objects to Subtract Numbers Up to 15	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-104	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction problems using numbers up to 15 with real objects.		**Teaching Aids** 1. Leaves and sticks		**Preparation** Gather 15 leaves and 15 sticks.

Opening *(1 minute)*

1. **Say:** Today we continue working on subtraction with numbers up to 15.
2. **Say:** We will be using real objects today instead of counters.

Introduction to the New Material *(8 minutes)*

1. Write: 13 – 7 =
2. **Say:** I have 13 leaves in my hand.
3. Place the leaves on the table in front of you, counting one at a time.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
5. **Say:** I am going to subtract 7 from them. 1, 2, 3, 4, 5, 6, 7
6. Take away 7 of the 13 leaves.
7. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6
8. Write: 13 – 7 = 6
9. **Say:** I took 7 leaves away from 13 and I have 6 left.
10. Write: 14 - 7 =
11. **Say:** Here are 14 sticks.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
13. **Say:** I am going to subtract 7 sticks from the group of 14. 1, 2, 3, 4, 5, 6, 7.
14. Take away 7 of the 14 sticks.
15. **Say:** I am going to count how many sticks are left: 1, 2, 3, 4, 5, 6, 7.
16. Write: 14 – 7 = 7
17. **Say:** I took 7 sticks away from 14 and I have 7 sticks left.

Guided Practice *(12 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the subtraction sums.
2. **Say:** I will give you 3 minutes to gather 15 items between the 2 of you.
3. Take the pupils outside and give them 3 minutes to collect items. At the end of 3 minutes, signal for them to come back in to the classroom.
4. **Say:** Let's try some subtraction sums together.
5. Write: 15 – 4 =
6. **Say:** We are going to place 15 items in a pile on ours desks. We will count together as we place the counters.

7. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
8. **Say:** Now we are going to take 4 away. 1, 2, 3, 4.
9. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
10. Write: 15 – 4 = 11
11. **Say:** We took 4 objects away from 15 and we have 11 left.
12. Write: 13 – 9 =
13. **Say:** We are going to place 13 items in a pile on ours desks. We will count together as we place the counters.
14. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
15. **Ask:** How many are we going to take away? (Answer: 9)
16. **Say:** Let's count together as we take 9 away. 1, 2, 3, 4, 5, 6, 7, 8, 9.
17. **Say:** We are now going to count how many we have left. 1, 2, 3, 4.
18. Write: 13 – 9 = 4
19. **Say:** We took 9 items away from 13 and we have 4 left.

Independent Practice *(13 minutes)*

1. **Say:** You are going to work with your partner and the items you gathered to solve the following subtraction sums.
2. Write the following sums on the board:
   a. 13 – 10 = (Answer: 3)
   b. 15 – 8 = (Answer: 7)
   c. 14 – 7 = (Answer: 7)
   d. 11 – 6 = (Answer: 5)
   e. 12 – 9 = (Answer: 3)
   f. 15 – 3 = (Answer: 12)
   g. 12 – 4 = (Answer: 8)
   h. 11 – 9 = (Answer: 2)

3. **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use the items you gathered to solve the sums.
5. **Say:** Write the answers to the sums on your paper.
6. Give pupils 12 minutes to work, then write the answers on the board.
7. **Say:** Check your partner's answers. Give them a clap for each question they answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use objects to perform subtraction problems up to 15
2. **Say:** In the next lesson we will use fingers to perform subtraction problems up to 15.

Lesson Title: Using Fingers to Subtract Numbers Up to 15	**Theme:** Everyday Arithmetic – Addition Up to 10	
Lesson Number: M-01-105	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction sums using numbers up to 15.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In our previous lessons we have learnt how to subtract using counters and objects adding up to 15.
2. **Say:** Today we will use our fingers to solve subtraction sums.

Introduction to the New Material *(8 minutes)*

1. Write: 12 - 3 =
2. **Say:** Before I can subtract I need to start with 12 fingers. I only have 10.
3. **Ask:** Who would like to help me out?
4. Call a pupil with hand raised to the front to help out.
5. **Say:** _____ (pupil's name) please hold up 2 fingers.
6. **Say:** Now we can count our fingers. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
7. **Say:** Now we are going to take away 3. 1, 2, 3.
8. Take 3 of your fingers away.
9. **Say:** Now we will count the fingers we have left.
10. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9
11. Write: 12 – 3 = 9
12. **Say:** 12 – 3 = 9
13. Write: 15 - 5 =
14. Hold 10 fingers up.
15. **Say:** Here are 10 fingers. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
16. **Say:** I'm going to borrow 5 fingers from_____(pupil's name).
17. **Say**: _____ (pupil's name) please hold up 5 fingers.
18. Hold up 10 fingers.
19. **Say:** Now we will take away 5 fingers. 1, 2, 3, 4, 5.
20. Take 5 of your fingers away.
21. **Say:** Now we will count how m any we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
22. Write: 15 - 5 = 10
23. **Say:** 15 - 5 = 10

Guided Practice *(12 minutes)*

1. **Say:** Please find a partner to work with.
2. Give students a minute to find a partner.
3. **Say:** We will solve subtraction sums together.

4. Write: 13 - 4 =
5. **Say:** Our sum is 13 - 4
6. **Say:** Together with your partner, hold up 13 fingers.
7. **Say:** Now take 4 fingers away. 1, 2, 3, 4.
8. **Say:** Let's count the fingers we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9.
9. Write: 13 - 4 = 9
10. **Say:** 13 - 4 = 9
11. **Say:** Let's try another one.
12. Write: 14 - 6 =
13. **Say:** Our sum is 14 - 6
14. **Say: Say:** Together with your partner, hold up 14 fingers.
15. **Say:** Now take 6 fingers away. 1, 2, 3, 4, 5, 6
16. **Say:** Let's count the fingers we have left. 1, 2, 3, 4, 5, 6, 7, 8
17. Write: 14 - 6 = 8
18. **Say:** 14 - 6 = 8

Independent Practice *(13 minutes)*

1. Write the following sums on the board:

    a. 15 - 5 = (Answer: 5)
    b. 11 - 4 = (Answer: 7)
    c. 13 - 9 = (Answer: 4)
    d. 14 - 6 = (Answer: 8)
    e. 10 - 3 = (Answer: 7)
    f. 12 - 6 = (Answer: 6)
    g. 14 - 8 = (Answer: 6)
    h. 12 - 5 = (Answer: 7)
    i. 13 - 3 = (Answer: 10)
2. **Say:** You are going to work with your partner to solve the sums.
3. **Say:** First copy down the sums on your paper.
4. **Say:** Together with your partner, use your fingers to solve the subtraction sums.
5. **Say:** Write the answers to the sums on your paper.
6. Give pupils 112 minutes to work, then write the answers on the board.
7. **Say:** Check your partners work. Give them a clap for each question they answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use fingers to perform subtraction sums up to 15.
2. **Say:** In the next lesson we will use counters to subtract numbers up to 20.

Lesson Title: Using counters to subtract 2 numbers up to 20	**Theme:** Everyday Arithmetic – Subtraction up to 20	
Lesson Number: M-01-106	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction problems using numbers up to 20 with counters.	**Teaching Aids** Counters (stones or beads)	**Preparation** Gather enough counters for each pupil to have 20

Opening *(1 minute)*

1. **Say:** Today we are continuing our learning with subtraction.
2. **Say:** We will learn how to use counters to subtract up to 20.

Introduction to the New Material *(8 minutes)*

1. Write: 20 – 7 =
2. **Say:** I have 20 counters in my hand.
3. Place the counters on the table in front of you, counting one at a time.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
5. **Say:** I am going to subtract 7 from them. 1, 2, 3, 4, 5, 6, 7.
6. Take away 7 of the 20 counters.
7. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
8. Write: 20 – 7 = 13
9. **Say:** I took 7 counters away from 20 and I have 13 left.
10. Write: 18 - 6 =
11. **Say:** Here are 18 counters.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
13. **Say:** I am going to subtract 6 from them. 1, 2, 3, 4, 5, 6
14. Take away 6 of the 18 counters.
15. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
16. Write: 18 – 6 = 12
17. **Say:** I took 6 counters away from 18 and I have 12 left.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some subtraction problems together.
2. Write: 15 – 4 =
3. **Say:** We are going to place 15 counters in a pile on ours desks. We will count together as we place the counters.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
5. **Say:** Now we are going to take 4 away. 1, 2, 3, 4.
6. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
7. Write: 15 – 4 = 11

8. **Say:** We took 4 counters away from 15 and we have 11 left.
9. Write: 18 – 9 =
10. **Say:** We are going to place 18 counters in a pile on ours desks. We will count together as we place the counters.
11. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18
12. **Ask:** How many are we going to take away? (Answer: 9)
13. **Say:** Let's count together as we take 9 away. 1, 2, 3, 4, 5, 6, 7, 8, 9.
14. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9.
15. Write: 18 – 9 = 9
16. **Say:** We took 9 counters away from 18 and we have 9 left.

Independent Practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to solve subtraction problems.
2. Write the following problems on the board:
   a. 18 – 11 = (Answer: 7)
   b. 16 – 8 = (Answer: 8)
   c. 17 – 7 = (Answer: 10)
   d. 15 – 6 = (Answer: 9)
   e. 20 – 9 = (Answer: 11)
   f. 15 – 3 = (Answer: 12)
   g. 19 – 4 = (Answer: 15)
   h. 18 – 9 = (Answer: 9)
3. **Say:** First you will copy down the problems on your paper.
4. **Say:** Then you will use the counters to solve the problems.
5. **Say:** Write the answers to the problems on your paper.
6. Give pupils 14 minutes to work, then write the answers on the board.
7. **Say:** Check your answers. Give a thumbs up if you tried your best.

Closing *(1 minute)*

3. **Say:** Today we learned how to use counters to perform subtraction problems up to 20.
4. **Say:** In the next lesson we will use objects to perform subtraction problems up to 20.

Lesson Title: Using Real Objects to Subtract 2 Numbers Up to 20	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-107	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction sums using numbers up to 20 with real objects.		**Teaching Aids** Leaves and sticks		**Preparation** Gather 20 leaves and 20 sticks.

Opening *(1 minute)*

1. **Say:** Today we continue working on subtraction with numbers up to 20.
2. **Say:** We will be using real objects today instead of counters as we did in the previous lesson.

Introduction to the New Material *(8 minutes)*

1. Write: 20 – 9 =
2. **Say:** I have 20 leaves in my hand.
3. Place the leaves on the table in front of you, counting one at a time.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
5. **Say:** I am going to subtract 9 from them. 1, 2, 3, 4, 5, 6, 7, 8, 9.
6. Take away 9 of the 20 leaves.
7. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
8. Write: 20 – 9 = 11
9. **Say:** I took 9 leaves away from 20 and I have 11 left.
10. Write: 19 - 7 =
11. **Say:** Here are 19 sticks.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.
13. **Say:** I am going to subtract 7 sticks from the group of 19. 1, 2, 3, 4, 5, 6, 7.
14. Take away 7 of the 19 sticks.
15. **Say:** I am going to count how many sticks are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
16. Write: 19 – 7 = 12
17. **Say:** I took 7 sticks away from 19 and I have 12 sticks left.

Guided Practice *(12 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the subtraction sums.
2. **Say:** I will give you 3 minutes to gather 20 items between the two of you.
3. Take the pupils outside and give them 3 minutes to collect items. At the end of 3 minutes, signal for them to come back in to the classroom.
4. **Say:** Let's try some subtraction sums together.
5. Write: 18 – 4 =
6. **Say:** We are going to place 18 items in a pile on ours desks. We will count together as we place the counters.
7. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.

8. **Say:** Now we are going to take 4 away. 1, 2, 3, 4.
9. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.
10. Write: 18 – 4 = 14
11. **Say:** We took 4 objects away from 18 and we have 14 left.
12. Write: 16 – 7 =
13. **Say:** We are going to place 16 items in a pile on ours desks. We will count together as we place the counters.
14. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.
15. **Ask:** How many are we going to take away? (Answer: 7)
16. **Say:** Let's count together as we take 7 away. 1, 2, 3, 4, 5, 6, 7.
17. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9.
18. Write: 16 – 7 = 9
19. **Say:** We took 7 items away from 16 and we have 9 left.

Independent Practice *(13 minutes)*

1. **Say:** You are going to work with your partner and the items you gathered to solve the following subtraction sums.
2. Write the following sums on the board:
   a. 18 – 10 = (Answer: 8)
   b. 19 – 8 = (Answer: 8)
   c. 16 – 7 = (Answer: 9)
   d. 17 – 6 = (Answer: 11)
   e. 20 – 9 = (Answer: 11)
   f. 17 – 12 = (Answer: 5)
   g. 18 – 14 = (Answer: 4)
   h. 15 – 9 = (Answer: 6)
3. **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use the items you gathered to solve the sums.
5. **Say:** Write the answers to the sums on your paper.
6. Give pupils 12 minutes to work, then write the answers on the board.
7. **Say:** Check your partner's answers. Give them a clap for each question they answered correctly.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use objects to solve subtraction sums up to 20
2. **Say:** In the next lesson we will use subtraction to find a difference of 10.

Lesson Title: Using Counters to Subtract 2 Numbers with a Difference of 10	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-108	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction sums with a difference of 10 using counters.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather counters for each pupil to have 20.

Opening *(1 minute)*

1. **Say:** Today we are going to learn something different with subtraction.
2. **Say:** We will learn how to use counters to subtract 2 numbers with a difference of 10.

Introduction to the New Material *(8 minutes)*

1. Write: 20 – 10 =
2. **Say:** I have 20 counters in my hand.
3. Place the counters on the table in front of you, counting one at a time.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
5. **Say:** I am going to subtract 10 from them. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
6. Take away 10 of the 20 counters.
7. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
8. Write: 20 – 10 = 10
9. **Say:** I took 10 counters away from 20 and I have 10 left.
10. Write: 18 - 8 =
11. **Say:** Here are 18 counters.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
13. **Say:** Now I need to subtract 8 from them. 1, 2, 3, 4, 5, 6, 7, 8.
14. Take away 8 of the 18 counters.
15. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
16. Write: 18 – 8 = 10
17. **Say:** I took 8 counters away from 18 and I have 10 left.
18. **Say:** With both sums, when I used subtraction to solve the sum, the answer was 10.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some sums together.
2. Write: 15 – 5 =
3. **Say:** We are going to place 15 counters in a pile on ours desks. We will count together as we place the counters.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
5. **Say:** Now we are going to take 5 away. 1, 2, 3, 4, 5.
6. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
7. Write: 15 – 5 = 10

8. **Say:** We took 5 counters away from 15 and we have 10 left.
9. Write: 19 – 9 =
10. **Say:** We are going to place 19 counters in a pile on ours desks. We will count together as we place the counters.
11. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.
12. **Ask:** How many are we going to take away? (Answer: 9)
13. **Say:** Let's count together as we take 9 away. 1, 2, 3, 4, 5, 6, 7, 8, 9.
14. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
15. Write: 19 – 9 = 10
16. **Say:** We took 9 counters away from 19 and we have 10 left.

Independent Practice *(15 minutes)*

1. **Say:** You are going to work on your own and use the counters I have given you to solve subtraction sums.
2. Write the following sums on the board:
    a. 17 – 7 = (Answer: 10)
    b. 16 – 6 = (Answer: 10)
    c. 18 – 8 = (Answer: 10)
    d. 15 – 5 = (Answer: 10)
    e. 13 – 3 = (Answer: 10)
    f. 12 – 2 = (Answer: 10)
    g. 14 – 4 = (Answer: 10)
3. 19 – 9 = (Answer: 10) **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use the counters to solve the sums.
5. **Say:** Write the answers to the sums on your paper.
6. Give pupils 13 minutes to solve the sums.
7. Ask 8 volunteers (4 girls and 4 boys) to write the answers on the board.
8. **Say:** Check your answers. Put both hands in the air if you answered all of the sums correctly!

Closing *(1 minute)*

1. **Say:** Today we learnt how to use counters to perform subtraction sums with a difference of 10.
2. **Say:** In the next lesson we will use objects to perform more subtraction sums.

Lesson Title: Using Real Objects to Subtract 2 Numbers with a Difference of 2 and 5	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-109	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to solve subtraction sums with a difference of 2 and 5 using real objects.		**Teaching Aids** Leaves and sticks		**Preparation** Gather 20 leaves and 20 sticks.

Opening *(1 minute)*

1. **Say:** In the previous lesson we solved subtraction sums with a difference of 10 using counters.
2. **Say:** We will be using real objects today instead of counters to solve subtraction sums with a difference of 2 and 5.

Introduction to the New Material *(8 minutes)*

1. Write: 20 – 15 =
2. **Say:** I have 20 leaves in my hand.
3. Place the leaves on the table in front of you, counting one at a time.
4. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
5. **Say:** I am going to subtract 15 from them. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
6. Take away 15 of the 20 leaves.
7. **Say:** I am going to count how many are left: 1, 2, 3, 4, 5.
8. Write: 20 – 15 = 5
9. **Say:** I took 15 leaves away from 20 and I have 5 left.
10. Write: 12 - 10 =
11. **Say:** Here are 12 sticks.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
13. **Say:** I am going to subtract 10 sticks from the group of 12. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
14. Take away 10 of the 12 sticks.
15. **Say:** I am going to count how many sticks are left: 1, 2.
16. Write: 12 – 10 = 2
17. **Say:** I took 10 sticks away from 12 and I have 2 sticks left.

Guided Practice *(12 minutes)*

1. **Say:** You are going to work with a partner to gather items outside the classroom to help you solve the subtraction sums.
2. **Say:** I will give you 3 minutes to gather 20 items between the 2 of you.
3. Take the pupils outside and give them 3 minutes to collect items. At the end of 3 minutes, signal for them to come back in to the classroom.
4. **Say:** Let's try some subtraction sums together.
5. Write: 18 – 13 =
6. **Say:** We are going to place 18 items in a pile on ours desks. We will count together as we place the counters.

7. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
8. **Say:** Now we are going to take 13 away. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.
9. **Say:** We are now going to count how many we have left. 1, 2, 3, 4, 5.
10. Write: 18 – 13 = 5
11. **Say:** We took 13 objects away from 18 and we have 5 left.
12. Write: 16 – 14 =
13. **Say:** We are going to place 16 items in a pile on ours desks. We will count together as we place the counters.
14. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
15. **Ask:** How many are we going to take away? (Answer: 14)
16. **Say:** Let's count together as we take 14 away. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.
17. **Say:** We are now going to count how many we have left. 1, 2.
18. Write: 16 – 14 = 2
19. **Say:** We took 14 items away from 16 and we have 2 left.

Independent Practice *(13 minutes)*

1. **Say:** You are going to work with your partner and the items you gathered to solve the following subtraction sums.
2. Write the following sums on the board:
   a. 19 – 14 = (Answer: 5)
   b. 19 – 17 = (Answer: 2)
   c. 16 – 14 = (Answer: 2)
   d. 17 – 15 = (Answer: 2)
   e. 20 – 18= (Answer: 2)
   f. 17 – 12 = (Answer: 5)
   g. 18 – 13 = (Answer: 5)
   h. 15 – 10 = (Answer: 5)
3. **Say:** First you will copy down the sums on your paper.
4. **Say:** Then you will use the items you gathered to solve the sums.
5. **Say:** Write the answers to the sums on your paper.
6. Give pupils 12 minutes to work then invite 8 volunteers (4 girls and 4 boys) to write the answers on the board.
7. **Say:** Check your answers. Give yourself a pat on the back if you tried your best.

Closing *(1 minute)*

1. **Say:** Today we learnt how to use objects to perform subtraction sums with differences of 2 and 5.
2. **Say:** In the next lesson we will use subtraction to solve word sums with subtraction of numbers up to 20.

Lesson Title: Word Problems Using Subtraction Up to 20	**Theme:** Everyday Arithmetic – Subtraction Up to 20	
Lesson Number: M-01-110	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to make up one-step word problems using subtraction up to 20.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather enough counters for each pupil to have 20.

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt how to subtract numbers up to 20 using counters and objects.
2. **Say:** Today we are going to create word problems using subtraction up to 20.

Introduction to New Material *(8 minutes)*

1. Write: 20 - 5 =
2. **Say:** I am now going to create a word problem to go with the sum 20 + 5
3. **Say:** Mohamed carried twenty books from his classroom to the head teacher's office. He then carried 5 books back to his classroom. How many books were left in the head teacher's office.
4. **Say:** Now we can solve the word problem. I will use counters to help me solve it.
5. **Say:** Here are 20 counters for the 20 books he carried.
6. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
7. **Say:** Now I will take away 5 counters for the 5 counters he took back.
8. **Say:** 1, 2, 3, 4, 5
9. **Say:** Now we can count how many are left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
10. Write: 20 - 5 = 15
11. **Say:** 20 - 5 = 15. 15 books were left in the head teacher's office.
12. Write: 18 - 3 =
13. **Say:** Now I'm going to create a word problem to go along with the sum 18 - 3.
14. **Say:** Mamie found 18 flowers on her way to school. She then gave 3 away. How many flowers did she have left?
15. **Say:** Now we can solve the word problem. I will use counters to us me solve it.
16. **Say:** Here are 18 counters for the 18 flowers she found.
17. **Say:** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18.
18. **Say:** Now I'm going to take away 3 counters for the flower she gave away.
19. **Say:** 1, 2, 3.
20. **Say:** Now we can count how many are left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.
21. Write: 18 - 3 = 15
22. **Say:** 18 - 3 = 15. She had 15 flowers left.

Guided Practice *(10 minutes)*

1. **Say:** Let's try some together.
2. Write: 14 - 4 =
3. **Say:** Now we can create a word problem to go with the sum 14 - 4.

4. **Ask:** Who would like to share a word problem to go along with the sum
5. Call on a volunteer to share a word problem. Make sure they use the quantities 14 and 4.
6. Restate the word problem shared by the pupil.
7. **Say:** Now we can solve the word problem. We will use counters to help us.
8. **Say:** Here are 14 counters for _____ (refer to word problem given by pupil)
9. Count 14 counters aloud. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14.
10. **Say:** Now we will take away 4 counters for _____ (refer to word problem given by pupil).
11. Count 4 counters aloud. 1, 2, 3, 4.
12. **Say:** Now let's count how many are left. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
13. Write: 14 - 4 = 10
14. **Say:** 14 - 4 = 10. Our answer is 10.

Independent Practice *(15 minutes)*

1. Write the following sums:
   a. 14 - 3 = (Answer: 11)
   b. 15 - 4 = (Answer: 11)
   c. 19 - 7 = (Answer: 12)
2. **Say:** Copy down the sums written here on the board.
3. **Say:** Work with a partner to create word problems for each of the sums.
4. **Say:** Find the answer for each problem and write it down on your paper.
5. Give pupils 10 minutes to make up word problems and solve the sums.
6. Ask 3 pairs to share their word problems with the class.

Closing *(1 minute)*

1. **Say:** Today we learnt how to create one-step word problems from sums for numbers up to 20.
2. **Say:** In the next lesson we will continue practising subtraction of numbers up to 20.

Lesson Title: Subtraction Calculations Using Correct Mathematical Symbols	Theme: Numbers and Numeration – Subtraction Up to 20	
Lesson Number: M-01-111	Class/Level: Class 1	Time: 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to write and solve subtraction calculations using correct mathematical symbols.	Teaching Aids None	Preparation None

Opening *(1 minute)*

1. **Say:** We have been practising solving subtraction sums up to 20 using counters, objects and our fingers.
2. **Say:** Today we will continue to practice writing subtraction sums correctly using symbols.

Introduction to the New Material *(8 minutes)*

1. Write: 15   8
2. **Say:** I have the numbers 15 and 8.
3. **Say:** I need to add the correct symbols to make this a subtraction sum.
4. Place a subtraction symbol between the 15 and the 8. 15 − 8
5. **Say:** I have placed a subtraction symbol between the 15 and the 8. That shows I am going to subtract.
6. Place an equal sign at the end of the sum. 15 - 8 =
7. **Say:** I have placed an equal sign at the end of the sum. That tells me that the answer is going to come next.
8. **Say:** Now I will use my counters to solve the sum.
9. Place 15 counters on the able.
10. **Say:** Here are 15.
11. **Say:** Now I need to subtract 8. I will take away 8 counters.
12. **Say:** 1, 2, 3, 4, 5, 6, 7, 8.
13. **Say:** Now I need to count how many are left.
14. **Say:** 1, 2, 3, 4, 5, 6, 7.
15. Write: 15 - 8 = 7
16. **Say:** 15 minus 8 equals 7.
17. **Say:** I will show you another one.
18. Write: 8   6
19. **Say:** I have the numbers 8 and 6.
20. **Say:** I need to add the correct symbols to make this a subtraction sum.
21. Place a subtraction symbol between the 8 and the 6. 8 - 6
22. **Say:** I have place a subtraction symbol between the 8 and the 6. That shows I am going to subtract.
23. Place an equal sign at the end of the sum. 8 - 6 =
24. **Say:** I have placed an equal sign at the end of the sum. That tells me that the answer is going to come next.
25. **Say:** Now I will use my fingers to solve the sum.
26. **Say:** Starting with 8 I will take away 6.
27. **Say:** 7, 6, 5, 4, 3, 2.

28. Write: 8 - 6 = 2
29. **Say:** 8 minus 6 equals 2.

Guided Practice *(10 minutes)*

1. Write: 17   4
2. **Say:** We have the numbers 17 and 4.
3. **Ask:** What do we need to do first? (Answer: Add the subtraction symbol.)
4. Place a subtraction symbol between the 17 and the 4. 17 – 4
5. **Say:** I have place a subtraction symbol between the 17 and the 4. That shows us we are going to subtract.
6. **Ask:** What do we do next? (Answer: Add the equal sign.)
7. Place an equal sign at the end of the sum. 17 - 4 =
8. **Say:** I have placed an equal sign at the end of the sum. That tells us that the answer is going to come next.
9. **Say:** Now we will use our fingers to solve the sum.
10. **Say:** Starting at the number 17, we need to subtract 4.
11. **Say:** 16, 15, 14, 13.
12. Write: 17 - 4 = 13
13. **Say:** 17 - 4 = 13

Independent Practice *(15 minutes)*

1. **Say:** You are now going to work on your own. You will use the numbers below and add the correct symbols to make subtraction sums. You may use your fingers or counters to solve the sums.
2. Write the following sets of numbers on the board:
   a. 11 5 (Answer: 11 – 5 = 6)
   b. 12   4 (Answer: 12 – 4 = 8)
   c. 13   2 (Answer: 13 – 2 = 11)
   d. 8   4 (Answer: 8 – 4 = 4)
   e. 6   5 (Answer: 6 – 5 = 1)
   f. 17   2 (Answer: 17 – 2 = 15)
   g. 16   3 (Answer: 16 – 3 = 13)
   h. 15   6 (Answer: 15 – 6 = 9)
   i. 10   1 (Answer: 10 – 1 = 9)
3. **Say:** Write the sets of numbers in your book. Add the correct symbols and then solve each sum.
4. **Say:** Make sure to write the answer once you have solved the sum.
5. Give pupils 13 minutes to solve the sums.
6. Ask 9 volunteers to add the correct symbols and answers on the board.
7. **Say:** Give your friends a thumbs up if you agree with their answers.

Closing *(1 minute)*

1. **Say:** Today we continued to practice writing subtraction sums using mathematical symbols.
2. **Say:** In the next lesson we will solve sums and read them aloud.

Lesson Title: More Subtraction Calculations Using Correct Mathematical Symbols	**Theme:** Numbers and Numeration – Subtraction Up to 20	
Lesson Number: M-01-112	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to write, read, and solve subtraction calculations using correct mathematical symbols.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In the previous lesson, we reviewed how to write subtraction sums using mathematical symbols.
2. **Say:** Today we will solve subtraction sums and read them aloud.

Introduction to the New Material *(8 minutes)*

1. Write: 19 - 8 =
2. **Say:** First I am going to show you how to read the subtraction sum.
3. **Say:** This sum says 19 minus 8 equals.
4. **Say:** The symbol between the 9 and the 8 is the subtraction symbol so I used the word 'minus'.
5. Write 'minus' on the board.
6. **Say:** The sign at the end of the sum is the equal sign, so I used the word 'equals'.
7. Write 'equals' on the board.
8. **Say:** I can use my fingers or counters to solve the sum.
9. **Say:** Starting at 19, I will subtract 8. 18, 17, 16, 15, 14, 13, 12, 11
10. **Say:** The answer is 11. 19 minus 8 equals 11.
11. Write: 19 - 8 = 11
12. Write: 15 - 4 =
13. **Say:** This sum says '15 minus 4 equals'.
14. **Say:** The symbol between the 15 and the 4 is the subtraction symbol, so I used the word 'minus'.
15. **Say:** The sign at the end of the sum is the equal sign, so I used the word 'equals'.
16. **Say:** I can use my fingers or counters to solve the sum.
17. **Say:** Starting at 15, I will subtract 4. 14, 13, 12, 11.
18. **Say:** The answer is 11. 15 minus 4 equals 11.
19. Write: 15 - 4 = 11
20. **Say:** 15 minus 4 equals 11.

Guided Practice *(10 minutes)*

1. Write: 16 - 3 =
2. **Ask:** Who can read this sum? (Answer: 16 minus 3 equals.)
3. **Say:** 16 minus 3 equals.
4. **Ask:** What do we do next? (Answer: Solve the sum by subtracting.)
5. **Say:** Use your fingers to solve the sum by subtracting.

6. **Ask:** What is the answer? (Answer: 13)
7. Write: 16 - 3 = 13
8. **Say:** 16 minus 3 equals 13.
9. Write: 19 - 3 =
10. **Ask:** Who can read this sum? (Answer: 19 minus 3 equals)
11. **Say:** 19 minus 3 equals.
12. **Ask:** What do we do next? (Answer: Solve the sum by subtracting.)
13. **Say:** Use your fingers to solve the sum by subtracting.
14. **Ask:** What is the answer? (Answer: 16)
15. Write: 19 - 3 = 16
16. **Say:** 19 minus 3 equals 16.

Independent Practice *(15 minutes)*

1. **Say:** You are now going to work with a partner. You will take turns reading the subtraction sums aloud. You will both solve the sums.
2. Write down the following sums on the board:
    a. 13 - 5 = (Answer: 8)
    b. 12 - 2 = (Answer: 10)
    c. 16 - 4 = (Answer: 12)
    d. 9 - 8 = (Answer: 1)
    e. 17 - 7 = (Answer: 10)
    f. 11 - 4 = (Answer: 7)
    g. 8 - 8 = (Answer: 0)
    h. 15 - 9 = (Answer: 4)

3. **Say:** Copy the sums in your book. Take turns reading them with your partner. Write the answer in your book.
4. Give pupils 14 minutes to work, then write the answers on the board.
5. **Say:** Check your partner's work. Give them a clap for each question they answered correctly.

Closing *(1 minute)*

1. **Say:** Today we practiced reading subtraction sums aloud and solving them.
2. **Say:** In the next lesson we will be returning to learning about measurement and estimation.

Lesson Title: Identifying Objects in the Classroom as Big or Small in Area	**Theme:** Measurement and Estimation - Area	
Lesson Number: M-01-113	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to classify objects as big or small in area.		**Teaching Aids** Counters (beads, stones)		**Preparation** Gather enough counters for each pupil to have 10.

Opening *(2 minutes)*

1. **Ask:** Is a hippopotamus big or small? (Answer: big)
2. **Ask:** Is a seed big or small? (Answer: small)
3. **Say:** Today we will learn about objects that are 'big' in area and objects that are 'small' in area.
4. **Say:** You already understand 'big' and 'small'.

Introduction to the New Material *(5 minutes)*

1. **Say:** 'Area' is a new term that we will learn about today. Area is the measure of space inside a flat object or a flat space.
2. Hold up a pencil.
3. **Say:** This pencil is small. It takes up a 'small' area.
4. Point to a desk.
5. **Say:** This desk is big. It takes up a 'big' area.
6. Hold up a stone.
7. **Say:** This stone is small. It takes up a 'small' area.
8. Point to the classroom.
9. **Say:** This classroom is big. It takes up a 'big' area.
10. Hold up a seed.
11. **Say:** This seed is small. It takes up a 'small' area.
12. Point out the door to the school.
13. **Say:** This school is big. It takes up a 'big' area.

Guided Practice *(8 minutes)*

1. **Ask:** What are some objects you are familiar with at school or at home that take up a small area?
2. Record pupil answers on the board.
3. **Ask:** What are some objects you are familiar with at school or at home that take up a big area?
4. Record pupil answers on the board.

Independent Practice *(15 minutes)*

1. **Say:** You may now work on your own or with a partner.

2. Write the words 'small area' and 'big area' on the board.
3. **Say:** Write 'small' on one side of a piece of paper.
4. **Say:** Write 'big' on the other side of a piece of paper.
5. **Say:** You may work inside or outside the classroom but you must stay where I can see you.
6. **Say:** Draw objects that take up a small area on the 'small' area side of your paper.
7. **Say:** Draw objects that take up a big area on the 'big' area side of your paper.

Closing *(5 minutes)*

1. **Ask:** What objects did you find that take up a small area?
2. Record pupil answers on the board.
3. **Ask:** What objects did you find that take up a big area?
4. Record pupil answers on the board.
5. **Say:** Well done. Tomorrow we will compare and sort objects using 'bigger' and 'smaller'.

Lesson Title: Comparing and Sorting Objects Using Bigger and Smaller	**Theme:** Measurement and Estimation - Area	
Lesson Number: M-01-114	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use the terms 'bigger' and 'smaller' to compare and order objects.	**Teaching Aids** None	**Preparation** None

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt about objects that take up 'big' and 'small' areas.
2. **Say:** Today we are going to learn to compare objects and use the terms 'bigger' and 'smaller'.

Introduction to the New Material *(10 minutes)*

1. **Ask:** What is the biggest thing you have ever seen?
2. Write pupil answers on the board.
3. **Ask:** Can you think of anything bigger?
4. Write pupil answers on the board.
5. **Ask:** What is the smallest thing you have ever seen?
6. Write pupil answers on the board.
7. **Ask:** Can you think of anything smaller?
8. Write pupil answers on the board.
9. **Say:** Today we are going to learn about bigger and smaller.

Guided Practice *(8 minutes)*

1. **Say:** When we compare objects we use the term 'bigger' when something is larger.
2. **Say:** For example, the school is bigger than my house.
3. **Say:** The term 'smaller' is used when we compare objects and one is not as large as the other.
4. **Say:** My house is 'smaller' than the school.
5. **Say:** Let's think of some things you are familiar with.
6. **Ask:** What is bigger, a hippopotamus or a butterfly? (Answer: a hippopotamus)
7. **Say:** A hippopotamus is bigger.
8. **Say:** Let's look here in our classroom.
9. **Ask:** What is smaller, the window or the door? (Answer: a window)
10. **Say:** The window is smaller.
11. **Ask:** What is bigger, a tree or a leaf? (Answer: a tree)
12. **Say:** A tree is much bigger than a leaf.
13. **Ask:** What is smaller, a seed or a leaf?
14. **Say:** A seed is much smaller than a leaf.

Independent Practice *(15 minutes)*

1. **Say:** You will now work on your own to practice using 'bigger' and 'smaller'.
2. Write:
   a. snake or elephant (Answer: elephant)
   b. butterfly or monkey (Answer: monkey)
   c. pineapple or orange (Answer: pineapple)
   d. lime or coconut (Answer: coconut)
   e. pencil or book (Answer: book)
3. **Say:** Draw pictures of the sets of items I have listed on the board.
4. **Say:** Compare the items and circle the item that is 'bigger'.

Closing *(1 minute)*

1. **Say:** Today we learnt about 'bigger' and 'smaller' and how to compare items using these terms.
2. **Say:** In the next lesson we will learn how to measure the area of objects using our hands.

Lesson Title: Measuring the Area of Objects Using Hands	**Theme:** Measurement and Estimation - Area	
Lesson Number: M-01-115	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to measure the area of objects using hands.		**Teaching Aids** None		**Preparation** None

Opening *(2 minutes)*

1. **Say:** In our previous lesson we learnt how to compare and sort objects by size.
2. **Say:** In today's lesson we will learn how to measure by using our hands.

Introduction to the New Material *(5 minutes)*

1. **Say:** Look at your neighbour's hand. Compare your hand to their hand. Is it the same size?
2. The pupils should compare hand sizes either by putting hands next to each other, or palm to palm. You may need to demonstrate this.
3. **Say:** Hands are non-standard units of measurement. They are not the same size.
4. **Say:** When we don't have a formal unit of measure to use, we can use our hands.
5. **Say:** Today we are going to use our hands to measure the area of spaces and objects.

Guided Practice *(11 minutes)*

1. **Say:** Look at the top of your desk.
2. **Say:** How many hands do you think it would it take to cover the whole desk?
3. Write estimates on the board.
4. **Say:** You have just made guesses called estimates.
5. **Say:** Now using our hands, let's measure how many hands it actually takes. I will show you how to do it first.
6. Demonstrate by placing hands on desk and then moving one at a time while counting aloud. Do not measure the whole desk as you want pupils to measure it themselves. Highlight the need to not overlap or leave gaps when measuring.
7. **Say:** Now it is your turn. Use both hands and alternate them on your desk as you count like I have shown you. If you share a desk, you may use your hands and your desk mate's hands to measure.
8. Give pupils a few minutes to measure their desks using their hands.
9. **Ask:** How many hands did it take to cover your desk?
10. Write the numbers pupils give on the board.
11. **Say:** Our measurements are not all the same, because our hands are different sizes.

Independent Practice *(15 minutes)*

1. **Say:** Now it is your turn to measure the area of different spaces and objects with your hands.
2. **Say:** You will work with a partner to measure different spaces and objects inside and outside the classroom.
3. **Say:** Begin by drawing a picture of the space or object you are going to measure. If you know the word for the space you may write that as well.
4. **Say:** Then work with your partner to use your hands to measure the space or object you have chosen.
5. **Say:** Write the number of hands next to the picture of the space or object.
6. Give pupils 14 minutes to measure the area of objects.
7. **Say:** Hold up your work for me to see.

Closing *(5 minutes)*

1. **Ask:** What space or object did you measure with your hands and how many hands did it take to cover it?
2. Record several pupil answers on the board.
3. **Say:** Well done, tomorrow we will measure area using a different unit.

Lesson Title: Measuring the Area of Objects Using Leaves	**Theme:** Measurement and Estimation - Area	
Lesson Number: M-01-116	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to measure the area of objects using leaves.	**Teaching Aids** Leaves	**Preparation** None

Opening *(2 minutes)*

1. **Say:** In our previous lesson we learnt how to measure the areas of spaces and objects using our hands.
2. **Say:** In today's lesson we will learn how to measure by using leaves.

Introduction to the New Material *(7 minutes)*

1. **Say:** We're going to go outside and collect leaves to use as units of measurement. When we are outside the classroom, choose one leaf to use and then return back to your seat.
2. Give the pupils 3 minutes to find a leaf to use.
3. **Say:** Leaves are non-standard units of measurement just like hands are. Leaves are not the same size.
4. **Say:** Today we are going to use leaves to measure the area of spaces and objects.

Guided Practice *(11 minutes)*

1. **Say:** We will start with our desks again.
2. **Say:** How many leaves do you think it would it take to cover the whole desk?
3. Write estimates on the board.
4. **Say:** Now using our leaves, let's measure how many leaves it actually takes. I will show you how to do it first.
5. Demonstrate by placing your leaf on a desk and then moving one at a time while counting aloud. Do not measure the whole desk as you want pupils to measure it themselves. Highlight the need to not overlap or leave gaps when measuring.
6. **Say:** Now it is your turn. Use your leaf to measure your desk and count like I have shown you. If you share a desk, one of you may go first and measure the whole desk and then the other.
7. Give pupils a few minutes to measure their desks using their leaves.
8. Let all pupils finish.
9. **Ask:** How many leaves did it take to cover your desk?
10. Write the numbers pupils give on the board.
11. **Ask:** Why are our measurements not all the same? (Answer: Because our leaves are different sizes.)

Independent Practice *(15 minutes)*

1. **Say:** Now it is your turn to measure the area of different items with your leaves.
2. **Say:** You will work on your own to measure the area of different objects or spaces inside and outside the classroom.
3. **Say:** Begin by drawing a picture of the space or object you are going to measure the area of. If you know the word for the space or object you may write that as well.
4. **Say:** Then use your leaf to measure the space or object you have chosen.
5. **Say:** Write the number of leaves it would take to cover the object or space next to the picture you have drawn.

Closing *(5 minutes)*

1. **Ask:** What space or object did you measure with your leaf and how many leaves did it take to cover it?
2. Record several pupils' answers on the board.
3. **Say:** Well done. Tomorrow we will order objects according to their area.

Lesson Title: Ordering Objects According to Their Area	**Theme:** Measurement and Estimation - Area	
Lesson Number: M-01-117	**Class/Level:** Class 1	**Time:** 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to order objects according to their area.		**Teaching Aids** 1. Seeds 2. Pencils 3. Book		**Preparation** None

Opening *(2 minutes)*

1. **Say:** In our previous lesson we learnt how to measure the areas of spaces and objects using leaves.
2. **Say:** In today's lesson we will learn how to put the objects and spaces in order from smallest to greatest.

Introduction to the New Material *(6 minutes)*

1. **Say:** When we put objects in order from smallest to greatest, we compare 2 objects or spaces at a time to determine which order they go in.
2. **Say:** If the 2 spaces I am going to compare are the classroom and the school, it would be quite easy to say that the school is larger in area than the classroom.
3. **Say:** If I was to compare 3 spaces to put in order by area from smallest to greatest, I could compare the washroom, the classroom, and the school.
4. **Say:** I already know the school is larger than the classroom.
5. **Say:** Then I would just have to compare the area of the washroom and the area of the classroom.
6. **Say:** The washroom is smaller than the classroom, therefore the washroom is the smallest.
7. **Say:** In order from smallest to greatest, the spaces would be the following.
8. Write: washroom, classroom, school.

Guided Practice *(8 minutes)*

1. **Say:** Let's compare some objects together.
2. **Say:** We are going to compare a pencil and a desk.
3. Hold up a pencil and point to a desk.
4. **Ask:** Which is larger in area? (Answer: the desk)
5. **Say:** Now compare a pencil and a book.
6. Hold up a pencil and a book.
7. **Ask:** Which is larger in area? (Answer: the book)
8. **Say:** We can compare a book and the window.
9. Hold up a book and point to the window.
10. **Ask:** Which is larger in area? (Answer: the window)
11. **Say:** We can compare the door and the window.

12. Point to the door and point to the window.
13. **Ask:** Which is smaller in area? (Answer: the window)
14. **Say:** We can compare a seed and a pencil.
15. Hold up a seed and a pencil.
16. **Ask:** Which is smaller in area? (Answer: a seed)

Independent Practice *(12 minutes)*

1. **Say:** Now it is your turn to compare items and put them in order.
2. **Say:** You may work inside or outside the classroom. You must stay where I can see you and do not go in any other classrooms.
3. **Say:** Begin by choosing 2 items to compare.
4. **Say:** Draw pictures of each item and circle the item that is smaller.
5. **Say:** Once you have compared 2 items, choose 2 more items to compare and circle the item that is smaller.
6. **Say:** When it is time to come back to the classroom, you will hear my signal.

Closing *(5 minutes)*

1. **Ask:** What 2 items did you compare? Which was smaller?
2. Record pupil responses on the board.
3. **Say:** Well done. Tomorrow we will start to learn about how heavy objects are.

Lesson Title: Identifying Objects in the Classroom as Heavy or Light	Theme: Measurement and Estimation - Mass	
Lesson Number: M-01-118	Class/Level: Class 1	Time: 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to classify objects as heavy or light.		Teaching Aids Pencil, stone and seed		Preparation Gather a pencil, stone and seed.

Opening *(2 minutes)*

1. **Ask:** Is a hippopotamus heavy or light? (Answer: heavy)
2. **Ask:** Is a seed heavy or light? (Answer: light)
3. **Say:** Today we will learn about objects that are 'heavy' and objects that are 'light'.

Introduction to the New Material *(5 minutes)*

1. **Say:** 'Mass' is a new term that we will learn about today. Mass is the measure of how much an objects weighs.
2. Hold up a pencil.
3. **Say:** This pencil is 'light'. It is easy for me to lift.
4. Point to a desk.
5. **Say:** This desk is 'heavy'. It is difficult for me to lift.
6. Hold up a stone.
7. **Say:** This stone is 'light'. It is easy for me to lift.
8. Point to a table.
9. **Say:** This table is 'heavy'. It is difficult for me to lift.
10. Hold up a seed.
11. **Say:** This seed is 'light'. It is easy for me to lift.
12. Point at other objects in the room that are heavy or light and classify.

Guided Practice *(8 minutes)*

1. **Ask:** What are some objects you are familiar with at school or at home, that are heavy?
2. Record pupil answers on the board.
3. **Ask:** What are some objects you are familiar with at school or at home, that are light?
4. Record pupil answers on the board.

Independent Practice *(15 minutes)*

1. **Say:** You may now work on your own or with a partner.
2. Write 'heavy' and 'light' on the board.
3. **Say:** Write 'heavy' on one side of a piece of paper.

4. **Say:** Write 'light' on the other side of a piece of paper.
5. **Say:** You may work inside or outside the classroom but you must stay where I can see you.
6. **Say:** Draw objects that are 'heavy' on the heavy side of your paper.
7. **Say:** Draw objects that are 'light' on the light side of your paper.

Closing *(5 minutes)*

1. **Ask:** What objects did you draw that are heavy?
2. Record pupil answers on the board.
3. **Ask:** What objects did you draw that are light?
4. Record pupil answers on the board.
5. **Say:** Well done. Tomorrow we will compare objects using heavier and lighter.

Lesson Title: Comparing and Sorting Objects Using Heavier and Lighter	**Theme:** Measurement and Estimation - Mass	
Lesson Number: M-01-119	**Class/Level:** Class 1	**Time:** 35 minutes

Learning Outcomes By the end of the lesson, pupils will be able to use the terms 'heavier' and 'lighter' to compare and order objects.	**Teaching Aids** A book and a pencil.	**Preparation** Gather a book and a pencil.

Opening *(1 minute)*

1. **Say:** In our previous lesson we learnt about objects that are heavy and light.
2. **Say:** Today we are going to learn to compare objects and use the terms 'heavier' and 'lighter'.

Introduction to the New Material *(10 minutes)*

1. **Ask:** What is the heaviest thing you have ever seen?
2. Write pupil answers on the board.
3. **Ask:** Can you think of anything heavier?
4. Write pupil answers on the board.
5. **Ask:** What is the lightest thing you have ever seen?
6. Write pupil answers on the board.
7. **Ask:** Can you think of anything lighter?
8. Write pupil answers on the board.
9. **Say:** Today we are going to learn about 'heavier' and 'lighter'.

Guided Practice *(8 minutes)*

1. **Say:** When we compare objects we use the term 'heavier' when something weighs more and is more difficult to lift.
2. **Say:** For example, the chair is heavier than a book.
3. **Say:** The term 'lighter' is used when we compare objects and one is easier to lift than the other.
4. **Say:** This pencil is lighter than this book.
5. **Say:** Let's think of some things you are familiar with.
6. **Ask:** What is heavier, a hippopotamus or a butterfly? (Answer: a hippopotamus)
7. **Say:** A hippopotamus is heavier.
8. **Ask:** What is heavier, a lime or a pineapple? (Answer: a pineapple)
9. **Say:** A pineapple is heavier.
10. **Ask:** What is heavier, a tree or a leaf? (Answer: a tree)
11. **Say:** A tree is much heavier than a leaf.
12. **Ask:** What is lighter, a seed or a leaf?
13. **Say:** A seed is much lighter than a leaf.

Independent Practice *(15 minutes)*

1. **Say:** You will now work on your own to practice using 'heavier' and 'lighter'.
2. Write:
   a. snake or elephant (Answer: snake)
   b. butterfly or monkey (Answer: butterfly)
   c. pineapple or orange (Answer: orange)
   d. lime or coconut (Answer: lime)
   e. pencil or book (Answer: pencil)
3. **Say:** Draw pictures of the sets of items I have listed on the board.
4. **Say:** Compare the items and circle the item that is 'lighter'.

Closing *(1 minute)*

1. **Say:** Today we learnt about 'heavier' and 'lighter' and how to compare items using these terms.
2. **Say:** In the next lesson we will learn how to estimate weight using our hands.

Lesson Title: Estimate the Weight of Heavier Objects	Theme: Measurement and Estimation - Mass	
Lesson Number: M-01-120	Class/Level: Class 1	Time: 35 minutes

	Learning Outcomes By the end of the lesson, pupils will be able to estimate the weight of heavier objects by lifting.	Teaching Aids None	Preparation None

Opening *(2 minutes)*

1. **Say:** In our previous lesson we learnt how to compare objects and use the terms 'heavier' and 'lighter'.
2. **Say:** Today we are going to estimate the weight of heavier objects.

Introduction to the New Material *(6 minutes)*

1. **Ask:** What are some heavy objects here in the classroom?
2. Write pupil answers on the board.
3. **Ask:** Do you see anything heavier?
4. Write pupil answers on the board.

Guided Practice *(12 minutes)*

1. **Say:** We will estimate the weight of heavier objects by trying to lift them.
2. **Ask:** Do you think a chair is 'heavier' or a desk is 'heavier'?
3. **Say:** Most of the class thinks the _____ is heavier.
4. **Ask:** Who would like to volunteer to help me find out?
5. Choose 2 pupils (2 girls) to try to lift the 2 items.
6. First have the pupils lift chairs. They should each be able to lift one on their own.
7. Then have the pupils try to lift a desk on their own. They may not be able to.
8. **Ask:** From what we have seen, is the chair heavier or the desk heavier?
9. **Ask:** Do you think a chair is' heavier' or a pupil is 'heavier'?
10. **Say:** Most of the class thinks the _____ is heavier.
11. **Ask:** Who would like to volunteer to help me find out?
12. Choose 3 pupils (3 males) to help. 2 to try to lift the 2 items, and one to be lifted.
13. First have the pupils lift chairs. They should each be able to lift one on their own.
14. Then have the pupils try to lift the third pupil on their own. They will not be able to.
15. **Ask:** From what we have seen, is the chair 'heavier' or is the pupil 'heavier'?

Independent Practice *(13 minutes)*

1. **Say:** You will now work on your own to estimate which items are 'heavier'.
2. Write:

        a.   lion or elephant (Answer: elephant)

        b.   hippopotamus or monkey (Answer: hippopotamus)

        c.   motorcycle or bicycle (Answer: motorcycle)

3. **Say:** Draw pictures of the sets of items I have listed on the board.

4. **Say:** Compare the items and circle the item that is heavier.

Closing *(2 minutes)*

1. **Say:** Today we learnt how to estimate the weight of items that are' heavier'.

2. **Say:** In the next lesson we will learn how to estimate the weight of items that are 'lighter'.

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