

Ministry of Education in Guyana

Fun with Numbers



MINISTRY OF EDUCATION
FUN WITH NUMBERS - GRADE 1
IRI FOR MATHEMATICS
TEACHER'S GUIDE FOR THE 3rd TERM

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OVERVIEW -

TEACHER'S GUIDE FOR "FUN WITH NUMBERS" GRADE 1 IRI MATHEMATICS – THIRD TERM

This is the last part of the Teacher's Guide for the IRI series for Grade 1 Mathematics, "Fun with Numbers". The purpose of this Teacher's Guide — as it was for the Terms 1 and 2 guides—is to support your important work, as a teacher of grade 1. This guide provides:

1. lesson-by-lesson guidance during the Audio session, and
2. activities (or 'situations of learning') for you to conduct in your Mathematics classroom during the After-Audio sessions

As you have seen in the Teacher's Guides for Terms 1 and 2, the Teacher's Guide for Term 3 also contains three essential tools to help you more effectively conduct an IRI Mathematics lesson—first, an IRI calendar with suggested dates of implementation for each IRI lesson; second, a table outlining the Mathematic topics covered in Term 3; and third, the lyrics of each song heard during Term 3 Audio Programs (and which have been exclusively composed for this series).

The IRI Calendar and What to Do When Your Class Misses an IRI Lesson

The IRI Calendar for Term 3, found at the end of this guide, provides guidance as to when to begin with the first lesson and when to end with the closing lesson. If you follow this calendar, you will find that on the first day of school, it is recommended that you begin with the first lesson (lesson 101) for this term. This will require you to have all the IRI materials (worksheets, counters, radio, etc.) ready prior to the first day of school. It is very important that you, the teacher, are prepared with all these materials before beginning with the Term 3 lessons. In addition, you may also find it useful to review the Teacher's Guide and underline any activities that you feel would require additional attention to ensure that the children understand the Mathematical concepts presented.

The IRI calendar can also help you in the event that a holiday or other circumstance may cause you and your children to miss one or two IRI lessons. ***If you must skip one or two (but no more) consecutive IRI lessons***, you may refer to the calendar and skip to the recommended lesson, then continue with the next lessons as suggested. You may wonder how it is possible to skip IRI lessons without interrupting the children's learning of Mathematics for Grade 1. This is because of the way in which the curriculum of the IRI Mathematics series is organized, as it allows you to skip one or two consecutive lessons in a month without causing confusion for the children.

The calendar also shows that it is NOT necessary to repeat any of the lessons, as ample review and after-audio activities are built directly into the IRI series. Instead, to keep with the proposed schedule, and since the calendar and the length of each Mathematics lesson is based on the National Time Table, it is crucial that you and your children dedicate the full 50 minutes allotted to Mathematics (except on Fridays, which allows 30 minutes for Mathematics).

Mathematics Topics for Grade 1 Term 3. The Mathematics Topics for Grade 1 Term 3 are organized by months. The topics covered during each month are listed as cases and an example is presented for each case. All the topics in this table are distributed throughout the IRI lessons for Term 3, both during and after the Audio Programmes. This chart is available for you, the teacher, as a reference at the end of this Teacher's Guide.

Lyrics for Mathematics Grade 1 Term 3 Songs. Although the children may be familiar by now with all of the songs in the IRI series, the lyrics are provided as a reference for you and the children. To build upon the children's ability to sing the songs, you may want to encourage them to write or copy the lyrics to each song in their exercise books. This allows the children to learn how songs are written and an opportunity to teach these songs to their family and friends at home.

THE CLOSING LESSON FOR GRADE 1 IRI MATHEMATICS

The last Audio Programme is a closing lesson, entitled "Goodbye to IRI, First Grade". This lesson is designed in such a way that it may be used at any time, and not necessarily at the completion of all the IRI lessons. So, if you are using CDs in your classroom and are not able to complete all the IRI lessons (through Lesson 135) before listening to the 'Closing Lesson for Grade 1', you may skip to this lesson on the last day of your Mathematics class. It is important that the Grade 1 children experience this final IRI lesson as it will provide them with an appropriate ending to the IRI Mathematics series.

STRUCTURE AND ORGANIZATION OF THE TEACHER'S GUIDE FOR THE THIRD TERM

The structure of this Teacher's Guide for the third term is similar to the guide provided for the first and second terms. Term 3 consists of 36 IRI lessons and 8 review lessons (as in Terms 1 and 2, these review lessons are for each Friday). In the last two weeks of Term 3, you will find that some of the activities make references to the end of the IRI series for Grade 1. For instance, in 'Review of Week 33', you will find an activity that encourages the children to write a letter to a person or persons of their choice, in which they can reflect upon the IRI programmes. This kind of activity gives the children an opportunity to think critically about the IRI series while conveying their impressions of the programs and reflecting upon their understanding of Mathematics for this Grade.

At the end of this term, you too are invited to evaluate the IRI Mathematics course for Grade 1 and reflect upon the progress made by the children and yourself. During these reflections, you may think about what you have gained through IRI, how it has impacted you as a teacher, and any new elements that you may have found helpful to you for the next academic year.

IRI MATERIALS

As in the first and second term, the Audio Programmes for Term 3 of the "Fun with Numbers" series will be delivered to Grade 1 teachers and pupils through broadcast or CDs (in MP3 format). Similarly, as in previous terms, each child will receive the booklet or worksheets corresponding to the lessons in Term 3, while each teacher will receive this Teacher's Guide.

LESSON 101

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
 - Place the radio/CD player in the appropriate location in the classroom.
 - Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
 - **Record the lesson number in your IRI calendar.**
 - *Have the lyrics for the song ready.*
 - Participate with the children during the Audio lesson.
- **MAKE SURE THAT EACH CHILD HAS:**
 - A pencil
 - Worksheet: lesson 101
 - 9 counters (for the After-Audio Programme)

2. PART 1: During the Audio Programme

Column Subtraction (worksheet)	Money: Identifying Coins and Bills (worksheet)	Greater and Less 0 to 100 (worksheet)	Horizontal Addition (worksheet)	Test (worksheet)
$\begin{array}{r} 48 \\ - 13 \\ \hline \end{array}$	\$5, \$10, \$20, \$100	37 vs. 24 20 vs. 80 67 vs. 90 100 vs. 80	$2 + 3 + 2 =$ $4 + 2 + 1 =$ $5 + 1 + 2 =$	Various questions
$\begin{array}{r} 45 \\ - 32 \\ \hline \end{array}$				
$\begin{array}{r} 57 \\ - 41 \\ \hline \end{array}$				

- **Song:** "March of Numbers"
- **Physical Activity:** "Let's March"

3. PART 2: The After-Audio Programme

TEACHER: Facilitate the following activities

10 20 30 40 50

60 70 80 90 100

Sequences of 10

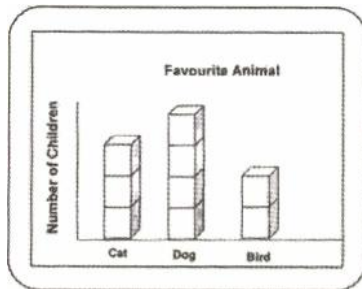
10 min

- Tell the children that they are going to count in tens to one hundred. Show them groups of ten counters (or matches, or sticks) and let them count: Ten, twenty, thirty.... one hundred.
On their worksheets, ask the children to look at the lines at the top of the page. Ask the children to start at 10 and carefully write the tens to one hundred.

Statistics - Reading Graphs

10 min

- On their worksheets, ask the children to look at the graph. Tell them that this graph tells us about the favorite animals of a group of children. Tell them that the children were asked which animal they liked the best - cats, dogs or birds. Each block on the graph represents a vote for a cat, a dog or a bird. Ask questions like:
 - "How many children liked birds the best?" **(two)**
 - "How many children liked cats the best?" **(three)**
 - "How many more children liked dogs than cats?" **(one)**
 - "How many children were asked altogether?" **(nine)**



Column Addition and Subtraction

5 min

Tell the children to find the addition and subtraction exercises on their worksheets. Explain that they are to complete the addition and subtraction for homework. Tell them that when completing each exercise, they should look carefully at the sign to first identify whether it is a subtraction or an addition exercise. To complete the exercise, they can use their fingers, draw circles or use counters.

- As an example, complete the first exercise with the children. Tell the children to look at the sign on the first exercise, and say if it is a plus or minus. **(plus)** Ask them to read, aloud, the first exercise. **(7 plus 2).** Ask "What is 7 plus 2?" **(9)** Ask the children how they got the answer. **(fingers, draw circles, counted on, or counters...)** Make sure that they have written the answer under the line.

Ask them to complete the remaining exercises for homework.

$$\begin{array}{r} +2 \\ 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ +2 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 7 \\ -2 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 9 \\ -4 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 4 \\ +4 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 6 \\ -3 \\ \hline \end{array}$$

*For the next lesson you will need a calendar, a large amount of cotton wool or light material, a heavy saucepan and a plastic bag.

Lesson 101

"FUN WITH NUMBERS"

GRADE I

LESSON 102

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the song ready.*
- **Have the light and heavy objects ready (such as cotton wool and a saucepan), and a plastic bag.**
- **Have a calendar ready.**
- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - 14 counters
 - A pencil

2. PART 1: During the Audio Programme

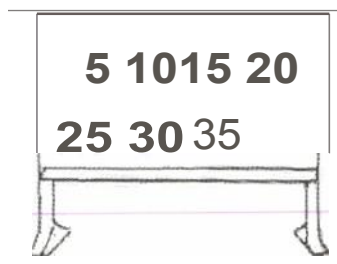
Addition with Objects (counters)	Subtraction and Addition (oral)	Rote countin by Five's 5 to 50 (oral)	Predecessors 2 to 50 (oral)	Subtraction (oral)	Word problem Addition and Subtraction (oral)	Subtraction (oral)
6+2+4	7+5	5, 10, 15...50	.... 49	9-4	6+2	4-1
3+4+7	9-5		.... 36	8-6	9-4	6-3
2+8+3	8+6		.... 45	9-8	6+7	9-3
7+2+4	7-6		.... 44	6-5	10-3	8-1
	9+5		.... 38	7-3		6-6
	9-8		.... 40	9-6		6-0
	0-0		.... 50	9-5		

➤ **Song:** "Song for Number Four"

Physical Activity: "Physical Exercise"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Rote Counting by 5's

5 min

- Tell the children that they are going to count by five's to 50. Write '5' on the board. Ask "Counting by five's, what would the next number be?" (10) Write '10' on the board. Continue with this till 50. **(5 10 15 20 25 30 35 40 45 50)** Ask the children to count from 5 to 50, counting by five's. Then ask different groups to count; the girls, then the boys, one side of the room then the other.
- Play "Stop and Go". Ask one child to start counting by 5's, then once the pupil has counted a few numbers by five's, say stop and ask a pupil from a different part of the room to continue.



Weight (Mass)

10 min

- Show the children a plastic bag. Ask them to shut their eyes. Place cotton wool (or some other very light material) in the bag and close it. Ask the students to open their eyes, and pass the bag around the class. Ask, "What do you think is in the bag?", "Is it **light** or **heavy**?" Encourage the children to feel the weight of the bag by standing and holding the bag out. Help them describe it. **(The bag is not very heavy; it is light; it is full of something light and not heavy.)** Open the bag and show the children the cotton wool; help them describe it. **(It is soft and light; it is not heavy.)** Ask them to close their eyes again. Place a heavy object such as a large stone or saucepan in the bag. Pass the bag around the class and encourage the children to feel the weight of the bag and to try and describe it. **(The bag is heavy; it is full of something that is hard and heavy.)** Ask the children what they think could be in the bag. Open and show them the saucepan (or other heavy object).



Months of the Year

10 min

- Using a calendar, point to each month and repeat the months of the year with the children. Ask different groups of children to say the months; the boys then the girls, one side of the room, then the other.
- Ask questions such as "Which month comes after September?", "...after May?", etc. You can also ask them to say the month of their birthday as you point to it on the calendar.

Lesson 102

LESSON 103

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the song ready.*
- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - Worksheet: lesson 103
 - Exercise book and a pencil.

2. PART 1: During the Audio Programme

Column Addition (worksheet)	Counting by 2's (worksheet)	Column Subtraction (worksheet)	Adding Money (worksheet)	Circling Groups of 10's (oral)
$\begin{array}{r} 3 \quad 2 \quad 3 \\ 2 \quad 3 \quad 1 \\ +4 \quad +2 \quad +4 \end{array}$	2,4 2, 4, 6 2, 4, 6, 8	$\begin{array}{r} 74 \quad 36 \quad 48 \\ -23 \quad -14 \quad -15 \end{array}$	$\begin{array}{r} \$5+ \$5 \\ \$5 + \$10 \\ \$10 + \$10 \end{array}$	10 of 12 10 of 14 10 of 16

➤ **Song:** The Magic Number is Two"
Physical Activity: "We're Cooking in the Kitchen"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

Addition

- On the chalkboard, teacher, please write the following exercises in two columns. In the first column, write:

$$\begin{array}{r} 2 \quad 4 \quad 3 \quad 3 \quad 3 \\ +7 \quad +4 \quad +2 \quad +4 \quad +3 \\ \hline \end{array}$$

In the second column, write: a) $2 + 7 =$ b) $4 + 4 =$ c) $3 + 2 =$ d) $3 + 4 =$ e) $3 + 3 =$
Let the children copy these exercises, in the appropriate columns, into their exercise books.

10 min

2		
+7		$2+7=9$
4		
+4		$4+4=8$
3		
+2		$3+2=5$
3		
+4		$3+4=7$
3		
+3		$3+3=6$
6		

- Ask them to look at the first column addition: $\begin{array}{r} 2 \\ +7 \\ \hline \end{array}$

Ask the children to find the answer using their fingers. (9)

Ask the children to look at the addition in the next column (a) $2 + 7 =$. Ask them to use their fingers to complete it. (9)

- Ask what they notice about these two answers (**both are the same**). Explain to the children that the answer is the same when the sum is set out either way.
- Ask the children to complete the remaining exercises on their own for 10 minutes.

TEACHER: Provide additional help to students who may need it. At the end of the 10 minutes ask them to stop, even if they have not finished. This is a good way to assess how many exercises they can complete, correctly, in the given time.

Weight (Mass)

- Clear two table tops. Call one the **light** table and the other the **heavy** table. Ask the children to look around the room and silently, identify objects that they think are **heavy** and objects that they think are **light**.

10 min

As a group, agree on the meaning of '**heavy**'. (**Something that one child finds hard to lift or something that takes two children or more to lift**)

Ask individual children to bring objects to the **light** table (**pencil, book, crayon, a toy.**)

Ask children to name objects that are **heavy**. (**the table, the cupboard, a bench...**) and explain why they can not put them on the **light** table.

- **HOMEWORK:** Look at home for heavy and light objects and draw them.

TEACHER: begin to make a display of heavy and light objects.

*For the next lesson, you will need a calendar and the 'months cards' (12 cards, each with the name of one of the months written on it.)

Lesson 103

LESSON 104 1

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the song ready.*
- **Have the 'months cards' ready.**
- **Have the calendar ready.**
- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - Worksheet: lesson 104 (for the After-Audio Programme)
 - A pencil

2. PART 1: During the Audio Programme

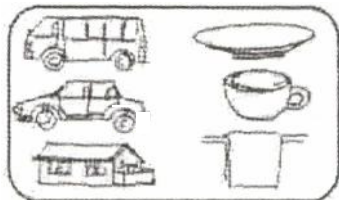
Greater and Less (oral)	Oral Addition with 2 and 3 Addends (oral)	Predecessors (oral)	Addition and Subtraction (oral)	Subtraction (oral)	Successors (oral)	Greater and Less (oral)
34 vs 29	4 + 3 + 6	..... 30	9 - 2	- 00	After 39,	34 vs 54
45 vs 58	8 + 4	..... 50	9 + 6	- 00	After 59	30 vs 31
70 vs 65	7 + 6	.... 20	6 + 5	- 3	After 29	74 vs 70
27 vs 32	9 + 3	..... 40	8 - 7	-	After 49	86 vs 81
	6 + 4 + 2	..... 10	8 + 4	-	After 69	96 vs 93
			9 - 6	-	After 79	67 vs 63
			7 - 4		After 89	
			9 + 5			

Song: "The Spider Song"

Physical Activity: "Shake your Body Rap"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Weight (Mass):

- Look at the pictures of heavy and light objects that the children did for homework and add them to the display.
Discuss object like buses and cars as heavy, and plates and cup as light objects.

5 min

Addition (homework)

On their worksheets, ask the children to look at the addition exercises. Ask them to look at the first column addition

$$\begin{array}{r} 3 \\ +6 \\ \hline \end{array}$$

5 min

3		
+6		3+6=9
—		
4		
+5		4+5=9
—		
6		
+2		6+2=8
—		
2		
+4		2+4=6
—		
5		
+3		5+3=8
—		
8		

Tell the children to find the answer by drawing circles (9).

Ask the children to look at the addition exercise in the box next to it (3 + 6 =). Ask them to use their fingers or circles to complete it. (9)

Remind the children that the answer is the same when the sum is set out either way.

Ask the children to complete the remaining exercises for homework. It will be marked during the next radio lesson.

Months of the Year – Ordinals 1st to 12th

- Say the months of the year with the children. Ask 12 children to come out to the front of the classroom. Give each child one of the 'months cards' (a card with a month of the year written on it). Ask the class to help put them in order. Ask questions such as: "Which is the first month?" (**January**) "Which month comes after January?" Repeat this with all the months.

15 min

Ask "Which month is the first?", "...second?", "...twelfth?"

Ask the class to count, in ordinals, the months of the year. Point to January while they say 'first' and so on until December, while they say 'twelfth'. End by saying the months of the year.

Ask the children to turn over their worksheets. Chat with them about their favorite celebrations throughout the year by finding the months, dates and other information. Use a calendar to mark some "favorite celebrations". Then, on the second page of their worksheets, ask the children to write the missing words and draw a picture of their favorite celebration.

*For the next lesson, you will need a calendar and the 'months cards'.

Lesson 104

REVIEW OF WEEK 26

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review twenty-six** is to identify:

- The children's understanding of Months of the Year
- Their ability to complete column addition and subtraction

There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

Materials needed for this lesson: **Children:**

- Worksheet each for "Review Twenty-six" and a pencil
- Months Cards
- A calendar

Review activities

Teacher: Facilitate the following activities



Months of the Year

- Ask different groups of children to say the months of the year.

10 min

Ask 12 children to come to the front of the classroom. Randomly give each child one of the 'Months Cards'. Ask them to put the months in order.

Ask questions to individuals or the class, such as: "Which is the first month?"

(January) "Which month comes after March?" (April)

Let the remaining children (those not holding cards) to come and stand in front of the card that has the month of his/her birthday. Then, ask the class to tell you the number of children that have a birthday in each of the twelve months, saying the name of the month. Allow the children to use the calendar to mark the months of their birthday.

5	9
+2	-4
7	5
6	4
+1	
7	6
7	6
-1	-4
6	2
6	4
+4	+3
10	7
7	6
-5	5
2	1

10 min

Column Addition and Subtraction

On their worksheets, ask the children to look at the addition and subtraction exercises. Tell them, they are to complete the exercises in the left-hand column silently. Tell them to look carefully at the sign of the first exercise to see if it is a subtraction or an addition sign. Tell them that they can use their fingers or draw circles to help them.

- After five minutes ask them to stop and exchange workbooks with a friend. Ask the children to mark each other's work as you tell them the answers to each exercise.

Teacher, please cut along the broken lines to detach homework activity. Give to each child to complete for the next lesson.

*For the next lesson, you will need a calendar, the 'months cards', and 50 counters for after the Audio Programme.

Review 26

LESSON 105

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your MI calendar.**
- *Have the lyrics for the song ready.*
- **Have the 'months cards' and a calendar ready.**
- **Have 50 counters ready for after the audio programme.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 105
- A pencil

2. PART 1: During the Audio Programme

Fractions, Reading 1/2, 1/3, 1/4 (worksheet)	Column Subtraction and Addition (worksheet)	Groups of 10's (worksheet)	Parts of Figure Shaded (worksheet)
<u>1/2</u> 1/3	9 7 9 6 +2 -1	10 + 2 10 + 5 10 + 7 10 + 9	1/2 1/3 1/2 1/4
1/2 <u>1/4</u>			
<u>1/3</u> 1/4			

r Song:

The Children's Song"

Physical Activity:

"Let's Make Music,"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

4		
+5		
9		4+5=9
6		
+2		
8		6+2=8
2		
+4		
6		2+4=6
5		
+3		
8		5+3=8



Addition

Ask the children to exchange their homework sheets from the previous lesson with a friend. Read the answers to the class or you may ask the children to read the answers as they mark each others homework. 5 min

Check the worksheets to see the children's progress and give special attention to those who need it.

Rote Counting by 5's

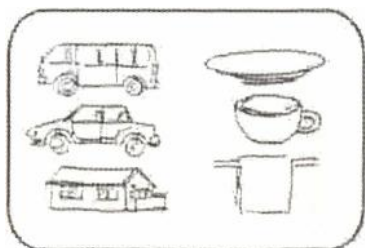
- Tell the children that they are going to count by five's to 50. Show them groups of 5 counters (10 **groups**). Ask the children to begin counting by fives from 5 to 50 **ten, fifteen ...fifty**. min
- Ask different groups to count; the girls, then the boys, one side of the room then the other. You can help by pointing to the groups of 5 counters and putting the groups together as they count (for example, when they say the number 10, put two groups of five together). Play "Stop and Go". Ask one child to start counting by 5's, then say stop and ask a child from a different part of the room to continue.

Weight (Mass): Heavy and Light

Take the children on a walk around the school and playground looking for heavy and light objects. Point out the buildings and how heavy they would be, point out a door and ask how many children would be needed to move it. Bring back a few objects for the display table. (ex.: a leaf, a light piece of wood...)

- Back in the classroom, take two objects from the **light** display table. Be sure to select one object that is much lighter than the other object. Agree with the children that both are **light**. Ask a child to come and hold both objects and ask if one is **lighter** than the other. Repeat this with other objects introducing the words **lighter** and **heavier**.

TEACHER: On their worksheets, ask the children to look at each of the drawings and write "light" or "heavy" on the lines. For the leaves and the bucket, allow the children time to discuss the weight of the objects before they write the words. In the last boxes, ask them to draw a light and a heavy object.



Lesson 105

LESSON 106

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the song ready.*
- **Have the 'months cards' and a calendar ready.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 106
- A pencil

2. PART 1: During the Audio Programme

Predecessors (oral)	Column Subtraction (worksheet)	Face of a Clock Reading (worksheet)	Fractions 1/2, 1/3, 1/4 (worksheet)	Addition and Subtraction (oral)
..... 20 40 60 30 90 70 50 80	30 40 40 50 50 -10 -10 -30 -40 -30	- Short hand pointing at 10 and long hand at 5. - Short hand pointing at 3 and long hand at 8. - Short hand pointing at 6 and long hand at 11. Short hand pointing at 4 and long hand at 12.	Fourths Half Thirds Fourths	9 - 4 1 + 6 9 - 1 6 + 0 7 - 1 1 - 1 9 - 5

Song:

"The Children's Song"

Physical Activity:

"Physical Exercises"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

27	28
34	35
22	23
41	42
48	49
35	36
20	21
33	34
29	30

Predecessors (20-50)

- On their worksheets, ask the children to look at the column of numbers with a line before each one. Ask them to read the first number aloud (**28**), and then to tell you the number that comes before 28. (**27**) Tell them to write that number on the line before the 28. Continue with the remaining numbers in the same way. .

5 min

Sequencing by 5's (multiples of 5)

Tell the children that they are going to count by five's to 50 (groups of five's). Ask them to count from 5 to 50, by fives. (**five, ten fifteen ...fifty**).

10 min

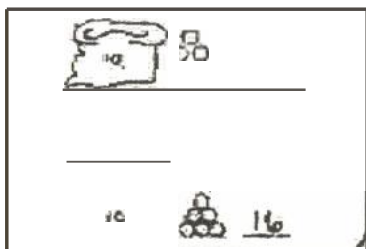
Ask them "Counting by fives, what would come next after 50?" (**55**) Count with them from 55 to 100, by fives. If necessary, write the numbers on the chalkboard (or you may put 50 counters in a box and outside the box, put groups of five counters to show 55, 60, 65, 70, ...100).

Ask the children to find the number 5 on their worksheet. Tell them that they are going to write all the other multiples of five on the lines (**after 5 would come 10, 15, 20...**). Tell them to think carefully about their answers after 50 (**55, 60, 65, ...,100**).

TEACHER: Walk around the classroom and work with those children who need help.

- When completed ask the children to look at the multiples of five that they have written. Ask if they can see that each of these numbers ends in either a **five** or a **zero**.

5	10	15	20
25	30	35	40
45	50	55	60
65	70	75	80
85	90	95	100



Counting in Groups of 10

- On their worksheets, ask them to look at the sacks. Tell them there are **10 balls** in each sack and there are some balls outside those sacks. Ask them to look at the first exercise - there are 10 balls in the sack and three balls outside. Ask them to count the number of balls and write that number on the line. Ask them to do the same for the next two exercises.

5 min

Check the worksheets to see the children's progress and give special attention to those who need it.

*For the next lesson, each child will need coins of \$1, \$5, \$10 and \$20 notes.

Lesson 106

LESSON 107

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the songs ready.*
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Coins of \$1, \$5, \$10 and \$20 notes
- 6 counters

2. PART 1: During the Audio Programme

Addition (counters)	Greater or Less (oral)	Subtraction and Addition (oral)	Predecessors 2 to 99 (oral)	Addition with 2 or 3 Addends (oral)
2 + 1 + 3	24 Vs 26 45 Vs 48	3 + 4 8 - 5	After 25 Before 26	5 + 1 3 + 1 + 2
3 + 2 + 1	32 Vs 35 51 Vs 56	7 + 1 9 - 1	After 34 Before 35	6 + 3 2 + 4 + 1
2 + 1 + 1	16 Vs 19	5 + 3 6 - 2	After 17 Before 18	4 + 5

➤ Song:

"I Would Fly" and "Fun with Numbers"

➤ Physical Activity:

"Physical Exercises"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



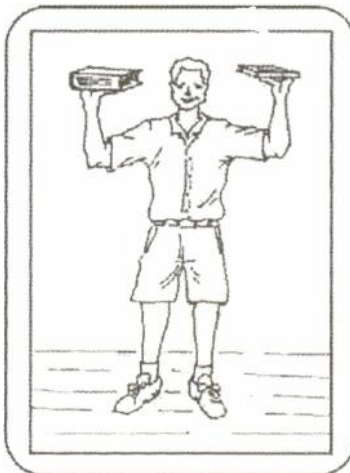
Money – Shopping Day

Organize all the children into two groups: some to be sellers and some to be buyers. With the children's help set up 'shops' in the classroom, using tables as stalls. Have articles for them to sell (fruit, sweets, books, pencils, crayons, straws, toys etc.) Use the labels made in lesson 67. Distribute some coins and \$20 notes between the children so they may use them to buy items or give change. Once the stalls have been set up, tell the children that when they buy things, they have to **ask the price and read the labels**. Tell the sellers to count their money and give change if they need to.

15 min

TEACHER: Let them play alone for 10 to 15 minutes as you walk around the classroom ensuring that the children are making correct calculations.

TEACHER: Collect the money and the labels to use again another day.



Weight (Mass): Heavy and Light

Select two books – one that is light and another that is heavier. Ask a child to come to the front and hold the two books. Ask "*Which one is **lighter**?*". "*Which one is **heavier**?*"

10 min

- Repeat this with other children using books (or other objects) and reinforcing the words **lighter** and **heavier**.

Use some objects that are close in weight and let the children compare their weights. As a class, discuss the results of comparing the weights of the objects (lighter, heavier).

LESSON 108

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IR! calendar.**
- *Have the lyrics for the song ready.*
- Participate with the children during the Audio lesson.

EACH CHILD SHOULD HAVE:

- Worksheet: lesson 108
- A pencil

2. PART I: During the Audio Programme

Predecessors, Successors 2 to 99 (oral)	Column Subtraction and Addition (worksheet)	Horizontal Addition (worksheet)	Clock Hours (o'clock) (worksheet)	Fraction Reading 1/2, 1/3, 1/4 (worksheet)	Fraction: Shaded Parts (worksheet)	Subtraction and Addition (oral)
After 24	34 75 + 15 30	3 + 2 + 6 =	4 o'clock	1/2 1/4 1/3		4 - 1
Before 31		2 + 4 + 3 =	8 o'clock		1/2 1/3	9 - 3
Before 75	31 +20	2 + 2 + 7 =	6 o'clock	1/4 1/3 1/2	2/3	1 + 9
After 32						4 + 2

➤ **Song:** "The Children's Song"

➤ **Riddle:** "A clock"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

9 10
19 20
29 30
39 40
49 50

Predecessors (of tens)

On their worksheets, ask the children to look at the column of numbers with a line before each one. Ask them to read the first number aloud **(10)**. Ask them to tell you the number that comes before 10. **(9)** Tell them to write that number on the line before the 10.

- Continue with the other exercises in the same way.

5 min

56 57 58 59 60 61
78 79 80 81 82 83
89 90 91 92 93 94
67 68 69 70 71 72

Sequences by 1

On their worksheets, ask the children to look at the other box of numbers, point to the first row of numbers and to read aloud the first number **(56)**. Then ask them to read aloud the second number **(57)**.

- Discuss how these numbers are in ones. Ask "*Which number comes after 57?*" **(58)** Ask the children to write that on the line. Count on to 60 and ask "*Which number comes after 60?*" **(61)** Ask them to write that on the line. Complete the other rows in the same way.

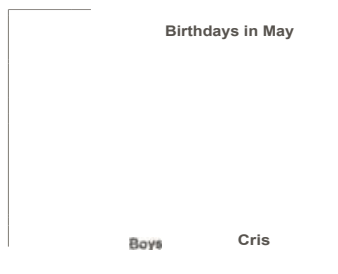
10 min

Statistics – Reading Graphs

On their worksheets, ask the children to look at the graph. Tell them that this graph tells about the birthdays of a group of children in the month of May. Tell them it shows how many boys and how many girls have a birthday in May. Remind them that each block represents one child.

- Ask: "*How many boys have a birthday in May?*" **(six)**
"How many girls have a birthday in May?" **(four)**
"How many more boys than girls have a birthday in May?" **(two)**
"How many children have a birthday in May?" **(ten)**

5 min



Check the worksheets to see the children's progress and give special attention to those who need it.

Lesson 10

REVIEW OF WEEK 27

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review twenty-seven** is to identify:

- The children's understanding of heavy and light

There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

Materials needed for this lesson:

Children:

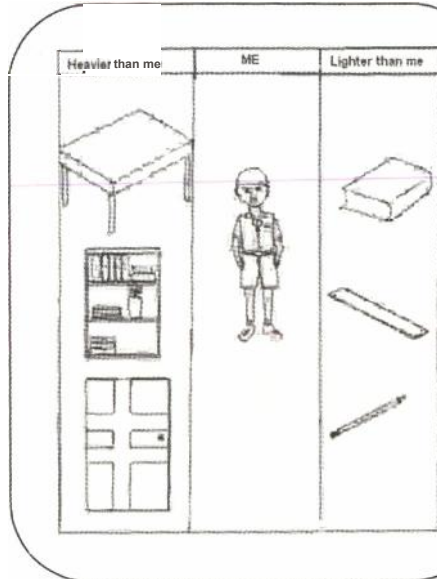
- Worksheet each for "Review Twenty-Seven"
- A pencil

Review activities

Teacher: Facilitate the following activities

Heavy and Light

20 min



Ask the children to turn their worksheet around so it is long ways, and to write their name on the line.

Ask them to draw a picture of themselves in the middle box, where it says "me".

In the first column where it says "heavier than me" ask the children to draw pictures of things that are heavier than themselves.

- In the last column where it says "lighter than me" ask them to draw pictures of objects that are lighter than themselves. .

TEACHER: Walk around the classroom as the students complete these exercises.

Encourage the children to talk about their pictures, for example *"this table is heavier than I am"*, or *"This pencil is lighter than I am."*

WHEN FINISHED, ADD THESE PICTURES TO THE DISPLAY.

TEACHER: If you have a balance available in your classroom, you may use the balance to measure the children and other objects. This provides a practical example to the children of the weight of various objects relative to their own weight.

Review 27

LESSON 109

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- *Have the lyrics for the song ready.*
- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - Worksheet: lesson 109
 - A pencil

2. PART 1: During the Audio Programme

Subtraction and Addition (oral)	Greatest and Least 0 to 100 (worksheet)	Value of money Addition (worksheet)	Counting by 5's (worksheet)	Fractions (worksheet)	Subtraction (oral)
4 + 5	70 73 75	\$5 and \$5	5, 10, 15	1 1	8 - 3
7 - 5	39 40 41		5, 10	2 3	4 + 4
3 + 2	69 70 81	\$5 and \$5 and \$10	5, 10, 15, 20, 25	1 1 1	9 - 0
8 - 6	93 94 95		5, 10, 15	4 2 3	4 - 0
8 + 1	80 82 85	\$ 5 and \$10 and \$20	5, 10, 15 20		6 - 3
5 - 3					5 - 5
5 + 2		\$20 and \$ 20 and \$20			
9 - 7					

Song:

The Spider Song"

Physical Activity:

"Let's Pretend We are Musicians"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

47	48
73	74
66	67
84	85
97	98
78	79
56	57
85	86
98	99

Successors

- On their worksheet, ask the children to look at the numbers followed by a line. Ask them to read the first number aloud. **(47)** Ask them "*Which number comes after 47?*" **(48)** Then explain that 47 plus 1 is 48. Tell them that the number that 'comes after' is the same number as adding 1. Ask the children to 'add one' to each of the numbers and write the answer on the line next to the number. Ask them if they recognize it is the same as the number that comes after

TEACHER: Walk around the classroom and help any children who may need it.

10 min

Check the worksheets to see the children's progress and give special attention to those who need it.

24	12
+21	+24
45	36
25	51
+13	+45
38	96

Counting in Groups of 5's and 10's

Ask the children to show you ten fingers. Tell them that they will now count all the fingers of all the children.

To do this, organize the class in such way that they can count by 5's up to 100 (this depends of the number of children of your class).

- Then, make **groups** of children so that the total number of fingers in each group is 100 (10 children per group). Allow the children in each group to verify the total number of fingers in their group by counting by 10's. **(100)**

Ask each group to discuss if they prefer to count by 5's or 10's and why.

10 min



Direction and Movement

Encourage the children to locate objects around the classroom by asking questions using words such as **above**, **below**, **in front**, **behind**, **between** and **next to**:

"Name something that is **above** the table", "...**behind** your desk", "...**in front of** your desk", "...**between** the door and the window", etc. "What is **next to** the door?"

5 min

*For the next lesson, you will need 100 straws (or sticks), with some of them tied into bunches of 10.

Lesson 109

LESSON 110

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Have some straws (or sticks) ready for after the audio programme, with some of them already tied into bunches of 10.
- Write the following exercises on the chalk board and ask the children to copy them into their exercise books:

$$\begin{array}{r} 34 \\ +21 \\ \hline \end{array} \quad \begin{array}{r} 25 \\ +13 \\ \hline \end{array} \quad \begin{array}{r} 12 \\ +24 \\ \hline \end{array} \quad \begin{array}{r} 51 \\ +45 \\ \hline \end{array}$$

- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - Worksheet: lesson 110 (for the After-Audio programme)
 - A pencil
 - Exercise book with the addition exercises

2. PART II: During the Audio Programme

Oral Addition (oral)	Subtraction (oral)	Addition a + b is greater or equal to 10 oral)	Addition (oral)	Column Addition (exercise book)
1 + 0	12 - 1	8 + 2	7 + 1 + 2	$\begin{array}{r} 34 \quad 25 \quad 12 \quad 51 \\ +21 + 13 +24 +45 \\ \hline \end{array}$
0 + 5	28 - 1	6 + 5	5 + 3 + 1	
6 + 0	49 - 1	7 + 1	4 + 2 + 1	
0 + 8	35 - 1	9 + 4	3 + 3 + 4	
9 + 0	10 - 1	8 + 6	6 + 4 + 1	

Song:

"Fun with Numbers"

Physical Activity:

The Carpenters"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

Story Problems



10 min

On their worksheets, ask the children to look at the first box with a picture of people selling fruits. Let the children observe that at the first market stall there are 3 coconuts for sale while the second stall has zero coconuts. On the line, ask the children to write how many coconuts the two stalls have together. Ask *"How much is 3 + 0?"* (3) Verify that the children have the right answer and write $3 + 0 = 3$ on the blackboard.

- In the second picture, let the children observe that one mother hen has 6 chicks and the next mother hen has zero chicks. Ask the children to complete the sum at the bottom line to show how many chicks there are altogether ($6 + 0 = 6$).

In the final box there are two children playing with marbles. Let the children observe that in the picture, the first child has 9 marbles and the second child has zero marbles. Ask them to complete the line of the sum to show how many marbles they have altogether. ($9 + 0 = 9$)

Give the children two more oral problems to solve, using their fingers.

TEACHER: Ensure that the answer to the oral problems is always 9 or less.

Counting Objects Grouped by 10's and Estimation

- Put about 100 straws or sticks on the table and some ties. (some sticks should already be grouped in 10's) Ask them, *"How many straws do you THINK are on the table?"*, *"Are there more than 5?"*, *"...more than 50?"*, *"How can we check?"*

Ask one child to count out loud ten straws from the table. **TEACHER:** Help the child tie the 10 straws in a bunch. The child can then hold out the bunch for the class to see.

Have more children come out and do the same. When they cannot make any more bunches of ten, tell the children to count aloud the number of bunches, and any ones (loose straws or sticks) that are left.

Ask questions such as: *"How close was your estimation?"*, *"Were you nearly right?"*, *"How many sticks are in one bunch?"*, *"How many in five bunches?"*, *"How many ones are there?"*

Rote Counting by 5's

- Tell the children that they are going to count by five's to 100. Ask different groups to count; the girls, then the boys, one side of the room then the other.

Play "Stop and Go". Ask one child to start counting by 5's, then say stop and ask another to continue from a different part of the room.

10 min

5 min

*For the next lesson, you will need 2 plastic bottles (one large and one small) and a jug of water.

Lesson 110

LESSON 111

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have 2 plastic bottles** (one of them smaller) **and a jug of water**
- Participate with the children during the Audio lesson.
- **Write the following exercises on the chalkboard:**

$$1 + 0 = \quad 0 + 4 = \quad 5 + \quad - \quad - - - \quad 0 + 8 = \quad - - - - - 3 + 0 = \dots\dots$$

MAKE SURE THAT EACH CHILD HAS:

- Copied the addition exercises in his/her exercise book.
- Worksheet: Lesson 111 (for the After-Audio Programme)
- A pencil

2. PART 11: During the Audio Programme

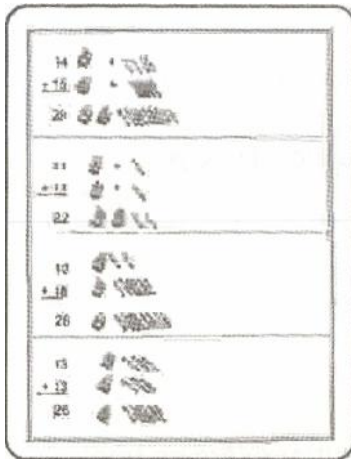
Subtraction (oral)	Subtraction (oral)	Addition (oral)	Horizontal Addition (exercise book)	Successors Subtraction and (oral)	Addition (oral)
7 - 5	25 - 1	5 + 8	1 + 0 =	After 15	9 - 3
3 - 0	17 - 1	9 + 6	0 + 4 =	After 12	4 + 2
9 - 3	42 - 1	7 + 5	5 + 0 =	After 9	9 - 4
5 - 0	19 - 1	3 + 8	0 + 8 =	After 19	7 - 6
	53 - 1		3 + 0 =	After 20	5 + 0
				After 18	8 - 6
				After 26	4 + 0
				After 29	0 + 3

➤ **Song:** "March of Numbers"

➤ **Physical Activity:** "Ole Grady Says"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Addition

- On their worksheets, ask the children to look **at** the column addition. Read the first addition exercise with the children (**14 plus 15**).
- Talk about how 14 is ^{one} 10 and 4 ones' and that it can be represented using one bunch of 10 sticks and 4 single sticks. (**10+4**) Talk about how 15 is 'one 10 and 5 ones' or one bunch of 10 sticks and 5 single sticks (**10+5**). Ask them to look at that on their worksheets. You may also reinforce this concept by drawing balls. Add the two bunches of sticks (**10+10**) and the single sticks (**4+5**) with the children to make 2 bunches of 10 sticks and 9 single sticks (**20 + 9**). Ask the children to tell you how many sticks there are all together (**29**).
- Ask them to write the answer to 14 plus 15 under the line. Complete the other column addition exercises with the children. For example, write '**11 plus 11**' on the chalk board and, with the children, complete using the same format.
- Ask the children to complete the other addition exercises, silently. **TEACHER:** Walk around the classroom and provide additional help to any students who may need it.

10 min

Check the worksheets to see the children's progress and give special attention to those who need it.



Capacity

- Show the children two plastic bottles, one large and one small. Ask them "*Which do you think will **hold more** water?*" (**the large one**). Verify this by pouring water into the large bottle then transferring as much water as possible into the other bottle. Discuss the result with the children.
- Show the children that *'the big bottle holds more water than the small bottle.'*
- Empty the water from the big bottle and pour the water from the small bottle back into the big bottle. Show the children that the big bottle isn't full, which means that *'the small bottle doesn't hold as much water as the big bottle'*. The small bottle holds less water.

10 min

Homework: Ask the children to turn over their worksheets, to the side with drawings. Explain to them that each block has two drawings. Tell them that for homework, they will paint the container in each block that they think will hold **more** water. Tell them to be prepared to explain their answers during the next lesson.

*For the next lesson, you will need a calendar, 2 plastic bottles (one large and one small) and a jug of water.

Lesson 111

LESSON 112

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have a calendar, 2 plastic bottles** (one large, one small) **and a jug of water ready.**
- Participate with the children during the Audio lesson.

MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 112
- A pencil

2. PART 1: During the Audio Programme

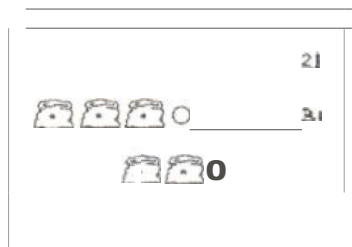
Addition and Subtraction (oral)	Addition (oral)	Addition (oral)	Addition (a + b > or = 10) (worksheet)	Counting (worksheet)	Successors (oral)	Subtraction and Addition (oral)
3 + 1	18 + 1	2 + 1 + 1	9 + 6 =	1 (10) + 1	After 9	9 - 6
9 - 0	26 + 1	3 + 3 + 4	8 + 3 =	2 (10) + 1	After 19	9 - 1
0 + 4	34 + 1	3 + 2 + 4	7 + 8 =	4 (10) + 1	After 29	1 + 6
6 - 4	58 + 1	7 + 3 + 2	9 + 4 =	5 (10) + 1	After 12	4 + 2
8 + 0		9 + 1 + 3	8 + 9 =		After 15	8 - 2
					After 10	0 + 9
					After 20	6 - 4
					After 29	

Song:

"One is important"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

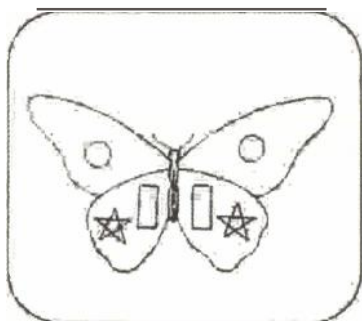


Counting 10's and Adding 1

5 min

On their worksheets, ask the children to look at the bags. Tell them that there are **10 balls** in each of the bags and one outside the bag. Looking at the first row, ask them "*How many bags of balls are there?*" (**2**) Ask "*How many balls are in the two bags altogether?*" (**20**) Remind them that there is one ball outside the bags. Now ask "*How many balls are there altogether?*" (**21**). To verify, count the balls by pointing to each bag and the one's: Ten, twenty, twenty one (or *twenty plus one is 21*). Let them write the answer (**21**) on the line.

- Ask them to do the same for the next three exercises.



Symmetry

10 min

At the bottom of their worksheets, ask the children to look at the picture of the butterfly. Ask them to look carefully at the wings of the butterfly and see that both wings are the same size and shape.

- Ask them to look at the shapes/ patterns on the wings. Point out that the wings are the same on both sides.
- Ask the children to colour the shapes/patterns on the wings, making sure that both sides are coloured the same.

Check the worksheets to see the children's progress and give special attention to those who need it.



Months of the Year

5 min

- Repeat the months of the year with the children as you point to each month on the calendar. Ask different groups of children to say the months; the boys then the girls, one side of the room, then the other.

Ask questions such as "*Which month comes after September?*", "*after May?*" and so on.

For the next lesson, you will need 100 straws (or sticks), with some of them tied in bunches of 10.

Lesson 112

GRADE 1

REVIEW OF WEEK 28

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review twenty-eight** is to identify:

- How much the children remember and understand fractions
- The children's ability to estimate large amounts

There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

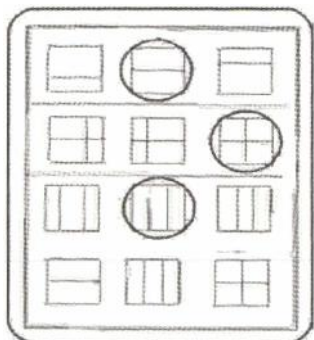
Materials needed for this lesson:

Children:

- Worksheets "Review Twenty-Eight"
- A pencil
- Straws or sticks to make groups of tens

Review activities

Teacher: Facilitate the following activities



Fractions

On their worksheets, ask the children to look at the first row of squares. Ask them to circle the square that is divided into **half – two equal parts**.

In the second row ask them to circle the square that is divided into **fourths – four equal parts**.

In the third row ask them to circle the square that is divided into **thirds – three equal parts**.

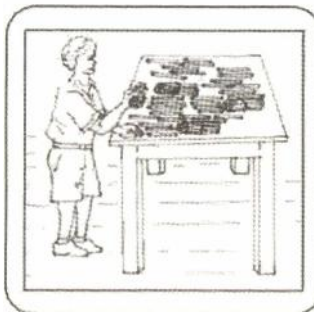
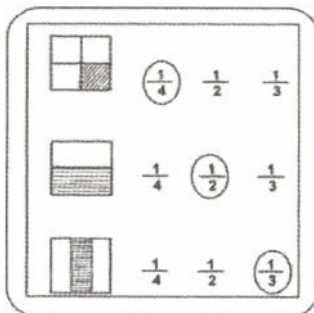
In the last row ask the children to look at the first square and colour **one half**. On the second square colour **one third** and on the final square colour **one fourth**.

Ask the children to turn to the second side of their worksheet. Ask them to look at the square at the top. Ask them to choose and circle the number (fraction) that shows how much is shaded (**1/4**)

Ask them to look at the second square and choose and circle the number (fraction) that shows how much is shaded (**1/2**)

Let the children do the same for the last square and circle the number (fraction) that shows how much is shaded. (**1/3**)

Check the worksheets to see the children's progress and give special attention to those who need it.



Counting Objects Grouped by 10's and Estimation

Put about 60 straws (or sticks) on the table with some of them tied in groups of tens.

Ask the children to silently think about how many straws there are on the table. Ask, "Are there more than 5?", "...more than 50?"

Ask the children to look at the bottom of their worksheet where there is some writing. Tell them that it says 'My Estimation'. On the line, tell them to write the number of straws they **think** are on the table.

Ask one child to count, out loud, ten straws from the table and tie them in a bunch. The child can then hold the bunch out for the class to see.

Have more children come out and do the same. When they cannot make any more bunches of ten, tell the children to count the bunches of 10's (**ten, twenty...sixty**) out loud, and any ones (single sticks or straws) that are left.

Ask questions such as: "How close was your estimation?", "Were you nearly right?"

Review 28

15 min

10 min

LESSON 113

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.
 - **MAKE SURE THAT EACH CHILD HAS:**
 - Worksheet: lesson 113
 - A pencil

2. PART 1: During the Audio Programme

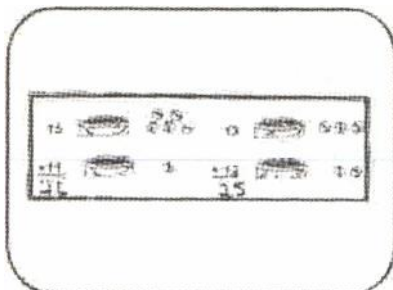
Subtraction (oral)	Subtraction and Addition (oral)	Oral Addition (worksheet)	Counting (worksheet)	Addition (worksheet)
3 - 2	25 - 1	7 + 6	2 (10) + 1	4 + 6 + 3
5 - 5	18 + 1	3 + 9	2 (10) + 2	5 + 2 + 4
6 - 5	35 + 1	6 + 8	2 (10) + 3	7 + 3 + 1
4 - 4	49 - 1	5 + 7	2 (10) + 4	8 + 2 + 4
8 - 5	32 + 1	4 + 9	2 (10) + 5	

Song:

"Song for Number Four"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Column Addition

On their worksheets, ask the children to look at the column addition. With the children, read the first addition, aloud: **15 plus 11**.

Tell them to look at the sacks with 10 balls and the loose balls that are close to 15 and 11. Ask "How many tens are in 15?" **(one)** "How many ones?" **(five)**. Ask them to complete the exercise by writing the answer to 15 plus 11 under the line.

TEACHER: Ask them to complete the second addition exercise alone. Encourage them to draw the sacks with ten balls in each sack and the single balls to arrive at the answer.

10 min

10 20 30 40 50 60 70 80 90 100

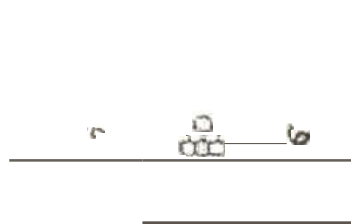
10 20 30 40 50 60 70 80 90 100

Sequences of 10

➤ Tell the children they are going to count in tens to one hundred. Count aloud with the children. **(Ten, twenty, thirty....one hundred)**.

On their worksheets, ask the children to look at the two number tracks counting in tens. Tell them to fill in the missing tens.

5 min



Counting in Groups of 10

On their worksheets, ask the children to look at the sacks. Tell them there are 10 balls in each sack and some outside. Ask them to look at the first one. In that sack there are 10 balls and some outside. Ask them to write the total number of balls (both inside and outside the bag) on the line. **(19)**

➤ Ask them to do the same for the next two exercises.

5 min

Check the worksheets to see the children's progress and give special attention to those who need it

Lesson 113

LESSON 114

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 114
- Pencil

2. PART 1: During the Audio Programme

Sub- traction (oral)	Addition (oral)	Predecessor, Successor Greater and Less oral	Greater and Less with money (worksheet)	Clock Hours (worksheet)	Successors (oral)
7 – 7 3 – 0 2 – 2 8 – 4 1 – 0 9 – 6	2 + 7 + 5 6 + 4 + 3 8 + 1 + 6 5 + 4 + 3	Before 33 ; 32 vs. 33 After 60; 61 vs. 60 Before 74; 73 vs. 74 Before 82; 81 vs. 82 After 90; 90 vs. 91	(\$10 + \$1) Vs. (\$10 + \$5) (\$10 + \$10) Vs. (\$20 + \$5) (\$10 + \$1) Vs. (\$20 + \$1) (\$10 + \$1 + \$1) Vs. (\$10 + \$5)	4 o' clock 8 o'clock 2 o'clock 10 o'clock 7 o'clock 1 o'clock	After 18 After 20 After 24 After 30

Song:

"Let's Make Music"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

10 20 30 40 50

60 70 80 90 100



Sequences of 10

Tell the children they are going to count in tens to one hundred. Show them groups of ten counters and they can point to the counters as they count to 100: Ten, twenty, thirty. .one hundred.

min

HOMEWORK: On their worksheets, ask the children to look at the lines at the top of the page. Tell the children to start at 10 and carefully write the first three tens (**10, 20 and 30**). Tell them to complete the remaining exercises for homework.

Measuring Mass / Weight

At the bottom of their worksheets, ask the children to look at the pictures.

Ask them if they recognize any of the pictures (**scales for measuring mass! weight**)

Ask the children where they have seen these pictures before. (**in stores, at the market**)

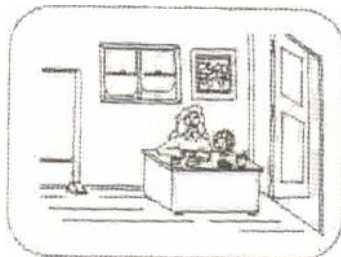
Ask "*What are they used for?*" (**weighing fruit, vegetables**)

Talk to the children about how the scales work. Tell them that you can put things on both sides and the **heaviest** object will go down.

TEACHER: If possible, take the children to see scales being used in everyday functions.

10 min

Check the worksheets to see the children's progress and give special attention to those who need it.



Direction and Movement

Encourage the children to locate objects around the classroom by asking questions using words such as **above, below, in front, behind, between** and **next to**. For example, ask:

"Name something that is **above** the table", "...*behind* your desk", "...*in front* of your desk", "...*between* the door and the window", etc. "What is **next to** the board?"

5 min

For the next lesson, you will need a plastic bottle, a cup, a jug of water, an empty container and \$20, \$10, \$5 and \$1.

Lesson 114

LESSON 115

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have a plastic bottle, a cup and a jug of water ready for after the Audio programme.**
- **Have \$20, \$10, \$5 and \$1 ready for the After-Audio programme.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 115
- A pencil

2. PART 11: During the Audio Programme

Subtraction and Addition (oral)	Column Subtraction (worksheet)	Horizontal Subtraction (worksheet)	Subtraction (worksheet)	Counting (worksheet)
4 + 2	3 5 8	6 - 0 =	36 - 1	2 (10) + 3
5 - 4	- 0	6 - 6	49 - 1	2 (10) + 5
6 + 0		7 - 0 =	26 - 1	2 (10) + 6
5 - 0		8 - 0 =	29 - 1	2 (10) + 9
0 + 5	7 6			
5 - 0				
9 - 9				

Song:

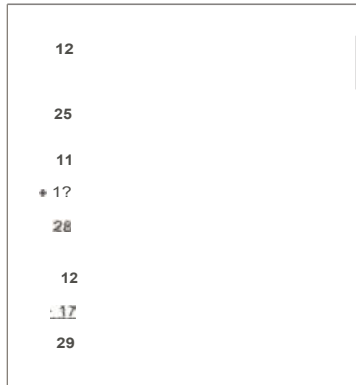
"Fun with Numbers"

More entertainment:

"Let's Make Music"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Column Addition (Homework)

On their worksheets, ask the children to look at the column addition exercises.

5 min

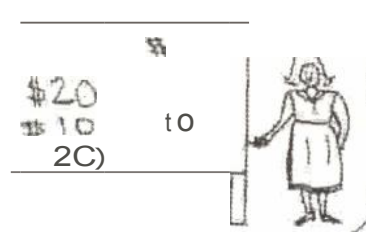
Read the first addition exercise with the children: **"12 plus 13"**.

Ask *"How many tens are in 12?" (one)* *"How many ones?" (two)* Let them point to '1 pod of 10 seeds' and '2 single seeds'. Explain the meaning of 1 in 12 and the meaning of 2 in 12 using the drawings. **TEACHER:** Do the same for the number 13.

- On their worksheets, ask the children to look the first and the second rows of drawings and say the 'total number of single seeds' (5) Then ask them to say the number of pods that have 10 seeds **(2)**.

Ask them to add $10 + 10$ and $2 + 3$, making 20 and 5. Ask the children to write the answer 25 under the line.

HOMEWORK: Ask them to complete the remaining exercises for homework. Remind them to bring their homework to class for the next lesson so that it can be checked.



Addition of Money

Tell the children you are going to pretend to be in the market and buy things at different stalls. At the first stall you spend \$20. At the second stall you spend \$5.

min

Ask *"How much have you spent altogether?" (\$25)*

Give other examples such as: \$20 and \$1; \$10 and \$10; \$20 and \$10. You can also ask the children to create stories about the market and how money is used there.

Capacity and Estimation

- Show the children a plastic bottle (filled with water) and an empty cup. Ask them which they think will **hold more** water. **(the bottle)**

10 min

Tell the children you are going to pour water from the bottle into the cup. Ask them

"How will we know when it is full?" Allow the children to answer, and help them understand that we know the cup is full when the water has reached the top.

After the cup is full, show the children that there is still water remaining in the bottle. This shows that *'the bottle holds more than the cup.'*

Empty the water from the bottle (save it in an empty container) and pour the water from the cup back into the bottle. Show the children that the big bottle isn't full, This shows that *'the cup doesn't hold as much water'.*

Ask the children to estimate how many cups it will take to fill up the bottle. Let them show you or explain to you how they estimated – let them count as you pour in the cups.



Lesson 115

LESSON 116

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have a plastic bottle, a cup and a jug of water ready.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 116
- A pencil

2. PART 1: During the Audio Programme

Subtraction and Addition (oral)	Addition (oral)	Addition (oral)	Successors Greater and Less (oral)	Greater and Less with Coins and Bills (worksheet)	Clock Hours (worksheet)	Subtraction (oral)
1 + 5	29 + 1	4 + 3 + 7	After 24; 24 Vs 25	\$15 vs. \$20	3 o'clock	5 - 2
2 - 2	49 + 1	5 + 4 + 6	After 31; 31 Vs 32	\$21 vs. \$25	5 o'clock	7 - 1
6 + 0	19 + 1	8 + 1 + 7	After 40; 40 Vs 41	\$22 vs. \$30	9 o'clock	9 - 4
5 - 2	39 + 1	6 + 4 + 8	After 56; 56 Vs 57	\$41 vs. \$45	8 o'clock	8 - 3
0 + 6	59 + 1	7 + 3 + 5	After 60; 60 Vs 61			7 - 4
4 - 0						9 - 2

➤ Song:

"The Children's Song"

More entertainment:

"Let's Make Music"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

12	11	12
<u>+13</u>	<u>+17</u>	<u>+17</u>
25	28	29

Column Addition

- Ask the children to swap their homework worksheets from yesterday. As a class, mark the worksheets.

5 min

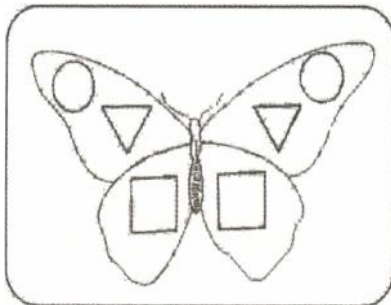
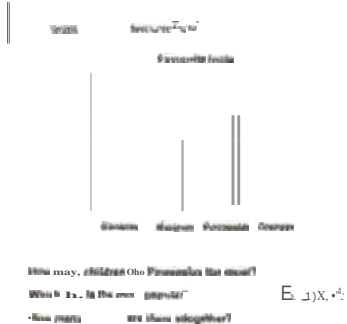
Statistics (Reading Graphs)

On their worksheets for today, ask the children to look at the graph. Explain that the graph tells them about the favorite fruit of a group of children.

- Tell them it shows how many children like bananas, mangoes, pineapples and oranges. Show and explain to them that each block represents one child that likes that fruit.
- Ask the children to count the number of blocks above 'bananas' (5) Ask "How many children like bananas?" (5) Do the same for mangoes, pineapples and oranges.
- From their worksheets, read the questions to the children and ask them to write the answer on the line.

TEACHER: Remind them that the word 'popular' means the one chosen the most.

10 min



Symmetry

- At the bottom of their worksheets, ask the children to look at the picture of the butterfly. Ask them to look carefully at the **shapes** on that butterfly. Tell them to point to the squares. What do they notice? (**There are two squares on both sides, the squares are the same size and that they are at the same distance from the middle line. The squares are balanced**).
- Do the same with the triangle and circles.
- Ask the children what this is called (**a symmetrical pattern**). Ask them what symmetrical means (**the same on both sides and at the same distance from the "middle line"**). Ask the children to colour the shapes on both sides of the butterfly using the same colours so that the symmetrical pattern can be seen.

Check the worksheets to see the children's progress and give special attention to those who need it.

Lesson 116

REVIEW OF WEEK 29

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review twenty-nine** is to identify:

- The children's ability to add money amounts
- Their understanding of column addition

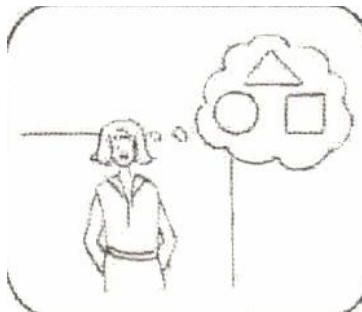
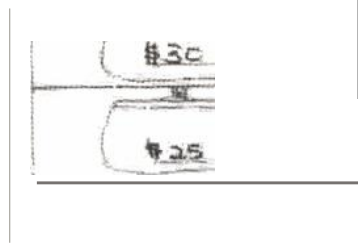
There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

The materials needed for this lesson:

Children: - Worksheet "Review Twenty-Nine"
- A pencil

Review activities

Teacher: Facilitate the following activities



Oral Addition of Money

On their worksheets, ask the children to look at the purses. Tell them that there is money inside the purses. Tell them that you are going to say the coins and notes that are inside each purse and they will add these to find the total amount of money. Tell them they will write the answer on the line.

10 min

- In the first block, there are three purses. Tell them that the first purse has \$20, the second has \$5 and the third has \$5. Tell them to write the **total amount** on the line. **(\$30)**
- In the second block there are three purses. Tell them the first one has \$10 and the others have \$10 and \$5. Ask them to write the **total amount** on the line. **(\$25)**
- In the last block, the purses have \$20, \$10 and \$6. Ask the children to write the **total amount** on the line. **(\$36)**

Column Addition

Ask the children to look at the second side of their worksheet. Tell them to find the column addition exercises.

Read the first addition with the children 15 plus 13. Tell the children to complete this and the other additions silently.

10 min

Check the worksheets to see the children's progress and give special attention to those who need it.

EXTRA TIME:

Play "I'm thinking of a shape". Ask the children to listen carefully to the clues and to draw the shape in their notebook. Give them clues such as:

"I'm thinking of a shape that has 3 points. It is a closed shape. It has 3 straight sides." **TEACHER:**

Repeat the clues, and verify that the children are drawing the correct shape. Then ask them:

"Which shape am I thinking of?" **(triangle)**

TEACHER: Repeat this exercise with the following shapes and clues:

"I'm thinking of a closed shape with 4 straight sides. Two sides are longer than the other sides. Which shape am I thinking of?" **(rectangle)**

"I'm thinking of a closed shape without straight lines. It can roll. Which shape am I thinking of?" **(circle)**

Review 29

LESSON 117 I

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 117
- A pencil

2. PART 1: During the Audio Programme

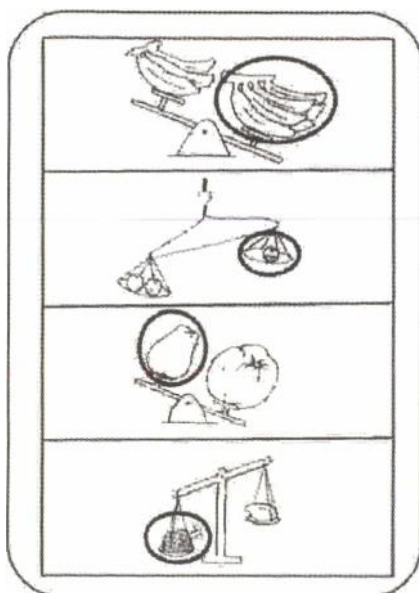
Column Subtraction (worksheet)	Subtraction and Addition (worksheet)	Column Subtraction (worksheet)	Horizontal Subtraction (worksheet)	Addition (oral)	Addition and Subtraction (oral)
$\begin{array}{r} 49 \\ - 35 \\ \hline \end{array}$	$\begin{array}{r} 6 + 1 \\ 5 - 4 \\ 7 + 0 \\ 8 - 0 \end{array}$	$\begin{array}{r} 9 \quad 7 \quad 5 \\ - 0 \quad - 7 \quad - 5 \end{array}$	$\begin{array}{l} 3 - 3 = \\ 4 - 0 = \\ 2 - 0 = \\ 7 - 7 = \end{array}$	$\begin{array}{l} 15 + 1 \\ 18 + 1 \\ 36 + 1 \\ 49 + 1 \end{array}$	$\begin{array}{l} 9 + 6 \\ 8 + 4 \\ 7 - 6 \\ 9 - 3 \end{array}$

Song:

"On the Farm"

2. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Measuring Mass I Weight

10 min

On their worksheets, ask the children to look at the pictures. Ask them if they recognize the pictures (**scales for measuring mass/ weight**)

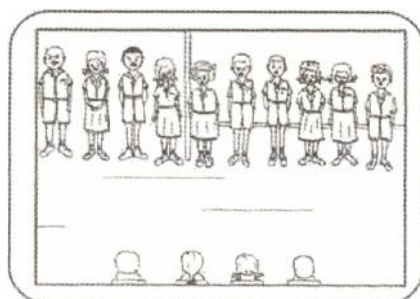
Ask the children if they have seen these before. If so, where? (**in stores, at the market**) Ask if they know what they are used for. (**weighing fruit, vegetables, etc**)

- Talk to the children about how the scales work. Help them understand that you can put things on both sides and the side of the scale with the **heaviest** object will go down. Ask them to look at the oranges on the scale. Ask "*Which is heavier -- one or two oranges?*" (**two oranges**). Ask "*How do you know?*" (**because the side of the scale with two oranges is lower**). Ask them to mark a cross on the **heavier** side. Ask them to look at the second picture of the tomato and the pepper. Ask "*Which is lighter?*" (**the pepper**) Ask "*How do you know?*" (**because it is on the side of the scale that is up. The tomato is heavier because it is on the side of the scale that is lower**) Ask them to mark a cross on the **lighter** side.

- Look at the picture of the coat hanger being used as a scale. Ask "*Which is heavier the mango or the pineapple?*" (**pineapple**) Ask them to mark a cross on the heavier side.

TEACHER: If you have a coat hanger, try to make a scale like the one in the picture. Allow the children to use it in class and practice weighing different objects.

Check the worksheets to see the children's progress and give special attention to those who need it.



Ordinals 1st -10th / Direction and Movement

10 min

- Ask six children to come to the front of the class. By name ask the children to form a line in front of you. "*Richard you are to be first, Sam second, Rachel third, Alex fourth...*" and so on. You can mark the children's positions on the chalkboard.
- Then ask the children to change positions. "*Sam you move to the first position, Joe to sixth, Richard to fifth ...*" and so on. Allow the other children to also select a position for each of the six pupils and ask them to move to those positions. When the six children are in line, ask the class to tell you the position of each child.
- Ask questions using **next to**, **between**, **behind** and **in front** such as: "*Who is in front of Joe?*", "*Who is between Alex and Sarah?*"

Lesson 117

LESSON 118

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- 20 counters for the After-Audio Programme
- Worksheet: lesson 118
- A pencil

2. PART 1: During the Audio Programme

Addition (oral)	Subtraction (oral)	Subtraction and Addition (worksheet)	Column Subtraction (worksheet)	Counting by 10's and 1's
$9 + 8$ $7 + 6$ $5 + 9$ $8 + 3$ $9 + 1$	85 65 43 -42 -12 -21	$6 - 5$ $3 + 0$ $9 - 9$ $0 + 7$ $5 - 0$	$2 \quad 8$ $- \quad 0 \quad - \quad 8$ $7 \quad 4$ $- \quad 0 \quad - \quad 4$	$10 + 10 + 1$ $10 + 10 + 10 + 1$ $10 + 10 + 2$ $10 + 10 + 10 + 2$

➤ Song:

"The Children's Song"

Physical Activity:

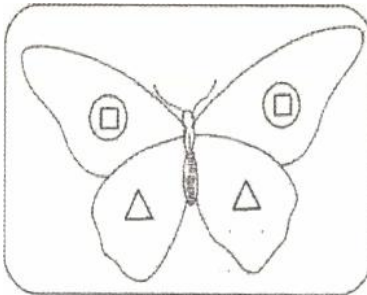
"Ole Grady Says"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

$$2 - 2 = 0 \quad 3 - 0 = 3 \quad 4 - 4 = 0$$

$$3 - 3 = 0 \quad 2 - 0 = 2 \quad 4 - =$$



14	16	17	19
-12	-14	-12	-14
2	2	5	5

Subtraction (with counters)

- At the top of their worksheets, ask the children to look at the horizontal subtraction and read the first exercise "two minus two equals..." Ask them to look at the first number **(2)** and put that many counters on their table.
 - Ask them to look at the second number **(2)** and take that many counters off the table. Ask "*How many counters are left on the table?*" **(0)** Tell them to write the answer on the line **(2 - 2 = 0)**.
 - Ask them to complete the other exercises on their own.
- TEACHER:** Walk around the classroom as the children complete the exercises and assist any children who may need help.

5 min

Symmetry

- On their worksheets, ask the children to look at the picture of the butterfly. Ask them to look carefully at the shapes on the butterfly.
- Tell them to put their finger on the circle on one side of the butterfly. What do they notice? **(There is a square in the circle)** Ask them to look at the circle on the other side. Ask "*Is there a square in that circle?*" **(no)** Ask the children to draw a square in that circle to make the butterfly **symmetrical**.
 - Ask the children to colour the shapes on the butterfly, making sure they make it symmetrical (both sides the same).

10 min

Column Subtraction

- At the bottom of their worksheets, ask the children to look at the column subtraction. Ask them to look at the first one '14 subtract 12'. To find the answer, first ask "*What is 4-2?*" **(2)** Next ask "*What is 1-1?*" **(zero)** So 14 - 12 equals... **(2)**. The children can verify their answer using counters.
- Explain the next exercise, the same way, to the children.
- **HOMEWORK:** Tell them to complete the last two exercises as homework. Remind them to bring their homework back to class to be marked.

5 min

LESSON 119

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IR! calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 119
- A pencil

2. PART 11: During the Audio Programme

Subtraction and Addition (oral)	Addition (oral)	Addition (oral)	Column Subtraction and Addition (worksheet)	Horizontal Subtraction and Addition (worksheet).	Greater and Less with Money (worksheet)
8+ 5	30 + 1	6 + 3 + 5	5 6	8 + 0 =	(\$20 + \$1) Vs. (\$10 + \$5)
9-3	50 + 1	9 + 1 + 2	+0 - 6	9 - 9 =	
6 - 3	80 + 1	7+ 3 + 4		0 + 7=	(\$20 + \$5) Vs (\$ 20 + \$20 + \$10)
7 + 4	60 + 1	5+ 4+ 7	0 9 0	1 - 0 =	
7 - 5	90 + 1	8 + 1 +9	+2 - 0 + 8	6 - 6 =	(\$20 +\$20+\$20) Vs. (\$20 +\$10)
6 - 1					

Song:

The Days of the Week"

3.

PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

14	16	17	18
-12	-14	-12	-14
2	2	5	5

Column Subtraction (homework)

Ask the children to swap their homework from the previous lesson with the child next to them. Have the children mark each others homework as you say the answers.

5 min

Statistics (constructing block graphs)

- On their worksheets, ask the children to look at the graph. Explain that this graph shows three songs from the radio programme: The Spider Song, Fun with Numbers, and One is Important.

10 min

Tell them that they are going to fill in the graph to show the favourite songs of the children in the class. Ask each child to say which ONE of these three songs is their favourite. Remind the children that each of them can choose only **ONE** song.

As each child says the name of their favourite song, tell the other children to draw a block on their chart to represent that child. Remind them to draw the block according to the song that the child has chosen. **TEACHER:** Show them how to do this.

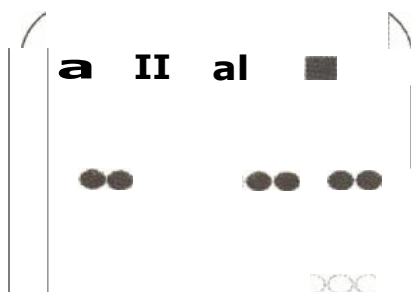
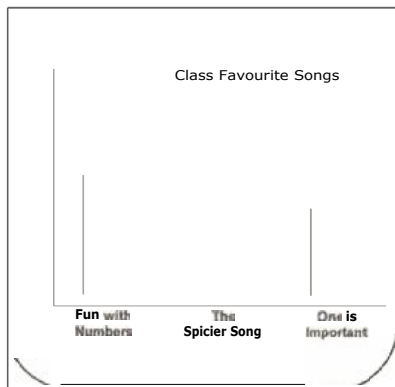
After constructing the graph, ask questions such as:

"Which song is the class favourite?"

"Which one is the least popular?"

"How many voted for the song One is important?"

"How many voted?"



Patterns

Ask the children to look at the next page of their worksheet. Ask, "Which shape is in the first row?" (**square**). Ask them to look at the pattern and 'read' it (**Coloured, not coloured, coloured, not coloured, coloured**),

Ask them what they think will come next - a coloured or not coloured square? (**not coloured**). Ask them to complete the pattern.

Ask the children to 'read' the pattern in the next row (**not coloured, coloured, coloured, not coloured, coloured, coloured, coloured**) Ask, "What do they think will come next?" (**not coloured**) Ask them to complete the pattern.

On the last row ask the children to make their own pattern. **TEACHER:** Walk around and the classroom and talk to the children about their patterns. Allow them read their patterns.

5 min

Check the worksheets to see the children's progress and give special attention to those who need it
For the next lesson, you will need 3 containers of different sizes (2 bottles and a cup) and a cardboard clock.

Lesson 119

LESSON 120

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready
- **Have containers (2 bottles and a cup) of different sizes ready.**
- **Have a clock (a cardboard clock) ready.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 120
- A pencil

2. PART 1: During the Audio Programme

Addition (oral)	Addition (oral)	Word Problems - Money (oral)	Column Subtraction (worksheet)	Horizontal Subtraction and Addition (worksheet)	Oral Addition (worksheet)
30 + 2 40 + 1 50 + 2 60 + 1 70 + 2 80 + 1	7 + 3 + 2 8 + 2 + 5 9 + 1 + 4	\$10 Vs \$25 \$50 Vs \$5 \$25 Vs \$10 \$20 Vs \$25	$ \begin{array}{r} 40 \quad 90 \quad 60 \\ - 30 \quad - 70 \quad - 40 \\ \hline \end{array} $	$ \begin{array}{l} 6 + 0 = \\ 7 - 7 = \\ 4 - 0 = \\ 0 + 3 = \\ 0 + 8 = \end{array} $	$ \begin{array}{l} 9 + 9 \\ 8 + 4 \\ 7 + 5 \\ 4 + 7 \end{array} $

➤ Song:

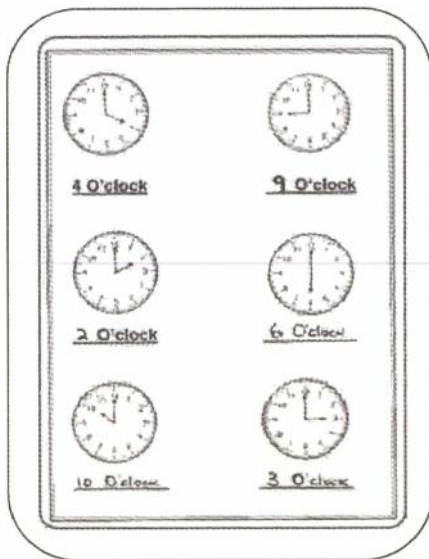
"I Would Fly"

More Entertainment:

"Let's Make Music"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Time (Read)

10 min

- On their worksheets, ask the children to look at the clocks. Ask them to look at the big (long) hand on the clock face and see what number it is pointing to. **(12)** Now ask them to look at the little (short) hand and see what number that is pointing to.

(4)

Explain to the children that anytime the big (long) hand is pointing to **12** and the short (little) hand is pointing to **4**, it is **4 O'clock. The hour is four hours.**

On their worksheets, ask them to look at the second clock. Again the big hand is pointing to 12. Ask "*What is the little hand pointing to?*" **(9)** Ask "*What hour is it?*" **(9 hours. 9 O'clock.)**

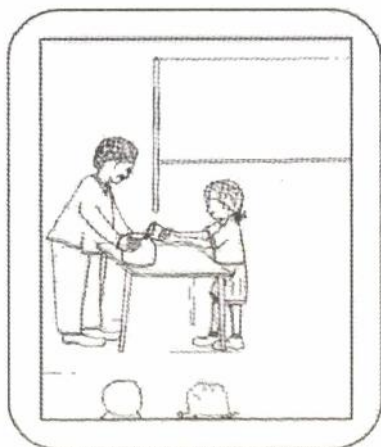
Ask the children to write **9** before the O'clock.

Complete the remaining exercises with the children in the same way. Remind them that on some of those exercises they have to write the time and O'clock.

TEACHER: If you have a clock in the classroom (or have brought a cardboard clock) allow the children to practice.

Capacity and Estimation

15 min



- Show the children two different sized containers (bottles) and a cup, (the large container should be full of water).
- Ask them which they think will **hold the least** water. **(the cup)** Ask "*How can we find out?*" **(pour the water from the large bottle into the cup)** Ask a child to help you pour water from the large bottle into the cup. Ask him, "*How will you know when it is full?*" **Encourage him to say that the cup is full when the water reaches the top.** Let him/her explain this to the other children.
- Show the children that there is still water remaining in the bottle, showing that **"this bottle holds more than the cup".**
- Empty the water from the bottle (save it in another container).
- Show the children the two bottles (different sizes). Ask "*Which do they think will hold more water?*" Ask them to estimate how many cups they think each bottle will hold. Using the cup, ask a child to help you fill the smaller container with water while the other children count the number of cups that are poured in. Repeat this with the larger container to show it holds more cups of water than the smaller one.

Lesson 120

REVIEW OF WEEK 30

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review thirty** is to identify:

- The children's ability to understand and read graphs
- Their ability to understand and read patterns

There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

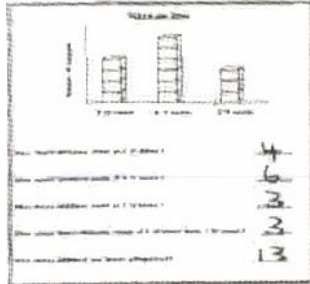
The materials needed for this lesson:

Children:

- Worksheet "Review Thirty"
- Pencil

Review activities

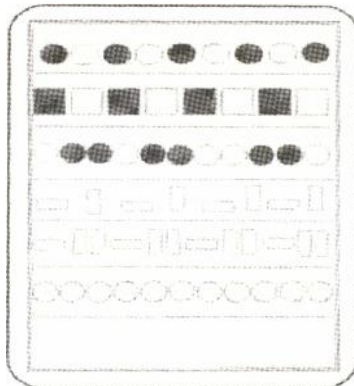
Teacher: Facilitate the following activities



Statistics: Reading a Graph

10 min

On their worksheets, ask the children to look at the graph. Explain that this graph shows the times that a group of children wake up. Help them to read the times given on the graph: **5 O'clock 6 O'clock and 7 O'clock.** Teacher, ask them about these hours. *"Do the children wake up in the morning?", "...afternoon?", "...while it is still dark?", "Do many people get up early in the morning?"* Tell them you are going to read the questions from their worksheets, aloud. (See the worksheet) Tell them to listen carefully to the question and write the answer on the line.



Patterns

10 min

Ask the children to turn to the second side of their worksheet. Tell them to look at the patterns and continue the patterns for the first 5 rows. On the row of empty circles they can make their own colour pattern. In the last row, tell the children that they can make their own shape pattern.

TEACHER: Ask the children to explain their patterns and make assessment notes.

Check the worksheets to see the children's progress and give special attention to those who need it.

*For the next lesson, you will need labels, money (coins and \$20 notes) and articles to sell during the "Shopping Day" exercise. (You may use the 'paper money' that was made in previous lessons).

Review 30

LESSON 121

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have the labels, money and articles for sale ready for "shopping day".**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 121
- A pencil

2. PART 1: During the Audio Programme

Addition (oral)	Column Subtraction (worksheet)	Greater and Less (worksheet)	Subtraction and Addition (worksheet)	Counting (worksheet)
20 + 1	83 60	24 Vs 25	8+7	2 (10) + 3
60 + 2	- 73 - 30	36 Vs 37	9 - 3	3 (10) + 5
70 + 1		51 Vs 52	7 + 5	2 (10) + 4
90 + 2	95 72	66 Vs 67	8 - 4	4 (10) + 6
50 + 1	<u>- 25</u> - 42			
40 + 2				

- **Song:** "The Song for Number Four"
- **Physical Activity:** "Pretending to be a Carpenter"

() PART 2: After the Audio Programme

Teacher: Facilitate the following activities



Money – "Shopping Day"

- Organize all the children into **two groups**: some to be sellers and some to be buyers.

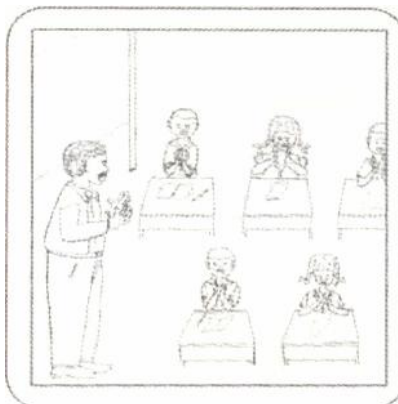
With the children's help, setup 'shops' around the classroom and using tables as stalls. Place different articles at the stalls for them to sell (fruit, sweets, books, pencils, crayons, straws, toys, etc.) Use the labels (that you made in previous lessons). Let the children (sellers) agree on the prices of each article and put the labels on the articles according to the price.

Distribute some coins and \$20 notes among the children so they may use them to buy items or give change. For this exercise, you can use the "paper money" that you and the children made in previous lessons.

Once the stalls have been set up, tell the buyers that when they buy things, they must **ask for the price and read the labels**. Tell the sellers to count their money and give change if they need to. Remind the buyers that they need to verify the change.

TEACHER: Allow the children to play alone for 20 minutes. While they play, walk around the classroom and supervise how the children are using their money. Collect the money, labels and articles for sale so that they can be used again during another lesson.

20 min



Patterns

Clap a pattern of "*clap, clap, pause, clap, clap, pause, ...*" to the class. Ask the children to listen carefully first and then ask them to join in.

After a short while stop and remind them that they are clapping a **pattern**. You can "translate" this pattern to 2, 1, 2, 1, ...

Clap other patterns with them.

- Ask a child to make a clapping pattern for the others to follow.

5 min

Lesson 121

LESSON 122

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 122
- A pencil

2. PART 1: During the Audio Programme

Addition (oral)	Addition (oral)	Greater and Less (oral)	Column Addition (worksheet)	Great and Less with Money
9 + 2 4 + 8 5 + 7 9 + 5 3 + 9	20 + 1, 20 + 2, 20 + 3, 20 + 4, 20 + 5, 20 + 6, 20 + 7, 20 + 8, 20 + 9	Before 8; 6 Vs 7 Before 37; 36 Vs 37 Before 49; 48 Vs 49 After 53; 53 Vs 54 Before 61; 60 Vs 61 After 57; 57 Vs 58	$\begin{array}{r} 1 \quad 2 \\ 2 \quad 2 \\ + 0 \quad + 1 \\ \hline 3 \quad 1 \quad 3 \\ 1 \quad 0 \quad 2 \\ + 0 \quad + 4 \quad + 1 \end{array}$	(\$5 + \$5) Vs (\$10 + \$5) (\$10 + \$5) Vs (\$10 + \$10) (\$10 + \$10) Vs (\$10 + \$5)

Song:

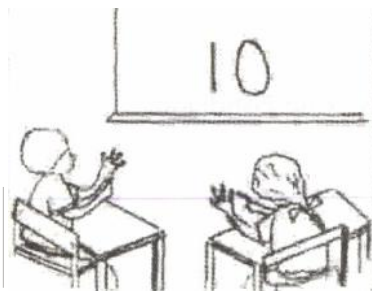
"The Children's Song"

Physical Activity:

"Pretending to Help Around the House"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Addition – Counting on Orally

- Tell the children they are going to add on from 10 using their fingers.
- Write **10** on the board. Tell them they are going to add 4 to 10. Tell them to hold up 4 fingers. Next, tell them to look to the board and say '**ten**', then count on using their fingers (**11, 12, 13, 14**). End this exercise by saying "**10 plus 4 is 14**".

15 min

TEACHER: Continue like this, for these exercises: **10 + 3** and **10 + 6**.

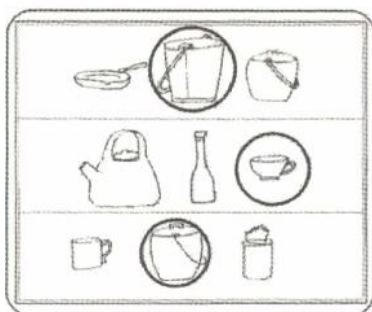
- On the board, change the **10** to **20**. Tell them they are going to add 3 to 20 by counting on from 20.

Tell them to hold up 3 fingers. Next, tell them to look to the board and say '**twenty**', then count on using their fingers. (**21, 22, 23**). End this exercise by saying "**20 plus 3 is 23**".

TEACHER: Continue with these exercises: **20 + 8** and **20 + 5**.

On the board, change the **20** to **30**. Tell the children that they are going to add 5 to 30 by counting on from 30. Tell them to hold up 5 fingers. Next, tell them to look to the board and say '**thirty**' then count on using their fingers (**31, 32, 33, 34, 35**). End this exercise by saying "**30 plus 5 is 35**".

TEACHER: Continue with these exercises: **30 + 7** and **30 + 4**.



Capacity

- Ask the children to look at their worksheets. In the first box there are three containers. Ask the children to circle the container that would **hold the most water**.
- On the second row ask the children to circle the container that would **hold the least water**.
- On the last row ask them to circle the container that would **hold the most water**.

5 min

TEACHER: Allow the children to justify their answers.

Subtraction

On their worksheets, ask the children to look at the subtraction at the bottom. Let them read each exercise. Complete the first one with them. Remind them that they can use their fingers or draw circles and cross them out to help find the answer.

- Tell them to complete the remaining exercises for **homework**.

5 min

"FU

6	
2	
4	

LESSON 1231

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IR! calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 123
- A pencil

2. PART 1: During the Audio Programme

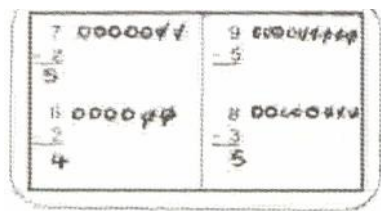
Subtraction and Addition (oral)	Addition (oral)	Greatest and Least (worksheet)	Column Addition (worksheet)	Column Subtraction and Addition (worksheet)	Comparing Money (worksheet)
8 + 6 9 - 3 8 - 7 7 - 1 9 + 2 8 + 9	30 + 1 30 + 2 30 + 3 30 + 4 30 + 5 30 + 6 30 + 7 30 + 8 30 + 9	54 55 56 63 64 65 75 76 77 82 83 84 91 92 93	3 2 1 3 + 2 + 1 1 3 4 3 + 1 + 0	26 37 - 13 + 21 68 - 52	(\$20 + \$10) Vs. (\$20 + \$20) (\$20 + \$20 + \$5) Vs. (\$20 + \$20 + \$10) (\$10 + \$10 + 10) Vs. (\$5 + \$5 + \$5) (\$20) Vs. (\$10 + \$10 + \$5)

Songs:

"The Children's Song" and The Days of the Week"

PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Subtraction (Column)

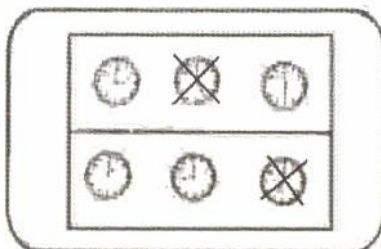
- Complete the money section from the audio session.

2 min

Subtraction (Column)

- Ask the children to swap their homework from yesterday with the child next to them. Tell them to mark each others homework as you say the answers.

3 min

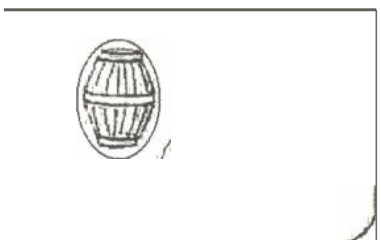


Time (read)

- On their worksheets, ask the children to find the clocks. Ask them to look at each clock and read aloud the times on the clocks in the first row. Ask them to put a cross on the clock that says **5 O'clock**.
- Repeat this with the second row, asking them to mark the clock that says **7 O'clock**.

5 min

TEACHER: If you have a clock in your classroom, you can let the children practice with that clock.



Capacity

- On their worksheets, in the next box, ask the children to look at the containers. Ask them to circle the container that would **hold the most** and mark with a cross the container that would **hold the least**. Then, ask them to explain why to the child sitting next to them.

5 min

Check the worksheets to see the children's progress and give special attention to those who need it.



Rote Counting by 10's

- Tell the children that they are going to count by ten's to 100. Ask different groups to count; the girls, then the boys, one side of the room then the other.
- Play "Stop and Go". Ask one child to start counting by 10's, then say stop and ask another child from a different part of the room to continue.
- Start with 30, 60, etc. If able, ask the children to count back by ten's.

5 min

LESSON 124

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 124
- A pencil
- 12 counters

2. PART 1: During the Audio Programme

Addition (oral)	Addition (worksheet)	Horizontal Addition (worksheet and counters)	Greater and Less (worksheet)	Column Subtraction and Addition (worksheet)
20+5	9 + 7	5 + 6 =	50 Vs 60	54 78
30+8	8 + 6	7 + 5 =	51 Vs 61	<u>+ 23</u> <u>- 65</u>
20 + 1	8 + 7	8 + 3 =	52 Vs 62	
20+3				14
20+9				<u>+ 53</u>
30 + 1				

Song: The Days of the Week"

Physical Activity: "Ole Grady Says"

3.

PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Number Sequences: Describing and Extending

If possible take the children outside or into a large space. (If not ask the children to stand in the classroom.)

15 min

- Have the children stand in a large circle.
 - Choose one child to start with, and count around the circle to see how many are in the circle (**Be part of the circle yourself**). Mark the child that is one. Allowing the children to count to find the answer, ask questions such as:
 - "If we start with Stephanie and count by 2's, who will be 8?"*
 - "If we start with Robert and count by 5's, who will be 25?"*
 - "Count on from 7 to 10. How many did we count?" (three)*
 - "Who is number 7?" "What number comes after you?"*
 - "Starting from 10, count backwards to 5"*
 - "Starting from 12 count on 5 people. What number are we on?" (seventeen)*



Patterns

5 min

- Clap a pattern to the class (example *"clap, clap, pause, clap, clap ..."*). Ask the children to listen carefully first and then ask them to join in. After a short while stop and remind them that they are clapping a **pattern**.
- Clap other patterns with them. Allow them describe the pattern or patterns.
- Ask a child to make a clapping pattern for the others to follow.

Lesson 124

REVIEW OF WEEK 31

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review thirty-one** is to identify:

- The children's ability to read time on the hour
- Their understanding of capacity
- Their understanding of ordinals, movement and direction

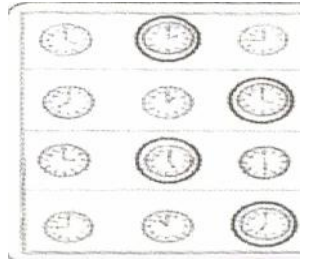
There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

The materials needed for this lesson:

Children: - Worksheets "Review of Week 31"
 - Pencils

Review activities

Teacher: Facilitate the following activities



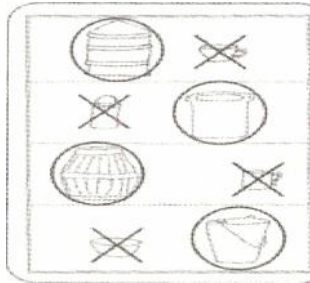
Time

Ask the children to look at the clocks on their worksheet. On the first row ask them to read all the times **silently** and circle the clock that reads **2 O'clock**. On the next row ask them again to read all the times **silently** and circle the clock that reads **4 O'clock**.

Continue the same way for the remaining rows, circling: **5 O'clock; 7 O'clock**.

TEACHER: If you have a clock in the classroom, you can show each hour to the children by moving the hands of the clock.

5 min



Capacity

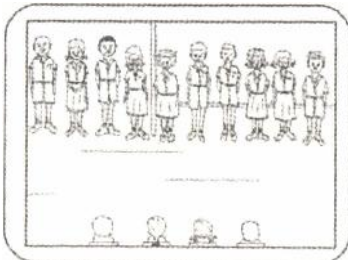
Ask the children to turn to the second side of their worksheet and look at the containers.

Tell the children that on each row they have to **circle** the container that will **hold more** and mark with a **cross** the container that will **hold less**.

TEACHER: Walk around the classroom to ensure that the children understand and follow the rules. You can also replace the drawings with real objects and liquid for additional practice.

5 min

Check the worksheets to see the children's progress and give special attention to those who need it.



Ordinals 1st -10th Movement and Direction

Ask six children to come to the front of the class. By name, ask the children to form a line in front of you. *"Richard you are to be first, Sam second, Rachel third, Alex fourth... Joe tenth"*

- Once the children are in line, ask them to change positions. *"Sam you move to first position, Joe to second, Richard to ninth..."* and so on. Allow the other children to also select a position for each of the ten pupils and ask them to move to those positions. When the ten children are in line, ask the class to tell you the position of each child.
- Ask questions using **next to**, **between**, **behind** and **in front** such as: *"Who is in front of Joe?"*, *"Who is between Alex and Sarah?"*
- In their notebooks, let the children draw a line of 10 children who are in line to buy ice cream. Tell them to label who is *first second, ...tenth*.

HOMEWORK: Let the children complete this exercise for homework.

10 min

Review 31

LESSON 125

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 125
- A pencil
- 13 counters

2. PART 1: During the Audio Programme

Horizontal Addition (worksheet and counters)	Subtraction (worksheet)	Addition and Subtraction (worksheet)	Addition (worksheet)
4 + 7 = 6 + 6 = 9 + 4 =	23-3 32-2 16-6	9 + 5 9 - 4 7 + 8 8 - 4	30+2 20+8 30+7

Song:

The Children's Song"

Physical Activity:

"Pretending to Cook in the Kitchen"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

$$\begin{array}{l} 2 + 3 = 5 \\ 4 + 1 = 5 \\ 2 + 2 + 1 = 5 \\ 3 + 1 = 4 \\ 1 + 1 + 2 = 4 \end{array}$$

Horizontal Addition

On their worksheets, ask the children to find the first addition exercise and read it aloud. **(Two plus one plus three).**

10 min

- Ask them what they think the answer is. **(six)** With the children, discuss how to find the answer. Allow some children to explain their way of finding the answer and show it using counters. Tell them one way is to add $2 + 1$ first to make 3 and then add 3 plus 3 to make **6**. Show them other ways that the children have mentioned to find the correct answer.

Ask the children to complete the remaining exercises on their own. Ask who feels confident in doing so. **TEACHER:** Walk around the classroom and work with any children who may need help. Break down the exercise into parts as above. When finished, read the answers to the children so they can mark and correct their own work.

Symmetry

On their worksheets, ask the children to look at the kites at the bottom of the page. Ask them to look at the patterns on the kites.

10 min

- Discuss the patterns with the children. Ask them if they can remember what **symmetrical** means. **(the same objects, pictures, etc. on both sides and that are at the same distance from the "middle line")**

Ask them to look carefully at the kites and draw what is missing to make each kite symmetrical.

Check the worksheets to see the children's progress and give special attention to those who need it.

EXTRA TIME:

Ask the children to draw a clock that shows **8 o'clock**.

TEACHER: Verify that the clock has all the numbers and is correctly drawn, and that the two hands are drawn in the right position.

***For the next lesson, you will need 80 sticks (or straws) and a scale and Kilogram unit of weight.**

Lesson 125

LESSON I 26

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Get a scale and a Kilogram unit of weight (recommended) ready.**
- **Have sticks or straws (80) to make bunches of ten ready.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 126
- A pencil
- 16 counters

2. PART 1: During the Audio Programme

Addition (oral)	Column Addition (worksheet)	Horizontal Addition (counters and worksheet)
8 + 5		
7 + 4	62 48	8 + 4 =
9 + 3	+ 2 + 1	
8 + 6		9 + 6 =
9 + 7	53 31	
8 + 5	+ 2 + 2	7 + 9 =

Song:

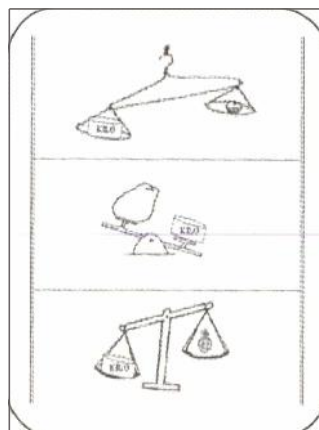
The Days of the Week"

Physical Activity:

" Shake your Body Rap"

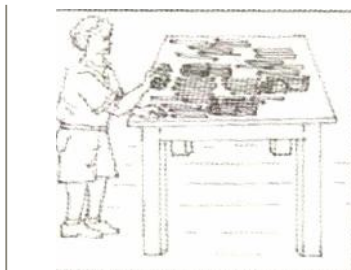
3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



$$2+1+3=6 \quad 2+3+1=6$$

$$4+3+2=9 \quad 4+2+2=8$$



*For the next lesson, you will need bottles and cups of different sizes, and a litre bottle.

Addition – Horizontal form

- Complete the addition section from the audio session.

Weight/Mass: Heavy and light

- Ask the children to look at the pictures of the scales on their worksheet. Ask them if they remember what scales are used for and where they are used. **(measuring mass or to weigh objects. They are often used in stores, at the market, etc.)** Remind them how scales work. Tell them that when you put things on both sides, the **heaviest** side will go down. Tell the children that people measure things against a weight/mass called a **kilogram**. Everybody tries to use this (Standard measurement) Ask them to look at the limes on the scale. Ask *"Do the limes weight more or less than a kilogram?"* **(less)** *"How do you know?"* **(because the kilogram is lower)**. Ask them to mark a cross on the heavier side. Repeat this with the other scales that are shown in the pictures.

TEACHER: If you have a scale and a Kilogram, use this instead of the scales in the worksheets (strongly recommended). The children need to feel the weight/mass of a KILOGRAM.

Horizontal Addition

- On their worksheets, ask the children to look the first addition exercise and read it aloud **(Two plus one plus three)**. Ask them: What is the answer? **(Six)** With the children, discuss how they found the answer (one way to find the answer is to add 2 + 1 first to make 3 and then to add 3 plus 3 to make 6. Other ways can be explain by the children) Ask the children to complete the remaining exercises on their own. Ask who feels confident in doing so. **TEACHER:** Walk around the classroom and work with any children who may need help. Break down the exercise into parts as above. When finished, read the answers to the children so they can mark and correct their own work.

Counting Objects Grouped by 10's and Estimation

- Put about 80 straws (or sticks) on the table and tie some of them in groups of ten's. Ask the children to **silently** think about how many straws there are on the table. *"Are there more than 5?", "...more than 50?"*
- Ask one child to count, out loud, ten straws from the table and tie them in a bunch, and then hold the bunch for the class to see. Have more children come out and do the same. When they cannot make any more bunches of ten, ask the children to count the bunches, out loud, and any ones (single sticks or straws) that are left on the table.
- Ask questions such as: *"How close was your estimation?", Were you nearly right?"*

2 min

10 min

5 min

min

Lesson 126

LESSON 127

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have bottles and cups of different sizes and a litre bottle ready.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 127
- A pencil

2. PART 1: During the Audio Programme

Addition and Subtraction (oral)	Addition (oral)	Column Addition (worksheet)	Subtraction Groups of 10's and I's (worksheet)	Word Problems Money (worksheet)
7 + 6	40 + 3	57 98 74	59 - 9	\$15 Vs \$20
5 + 9	20 + 6	+ 2 + 1 + 2	32 - 2	\$40 Vs \$25
8 - 7	50 + 1		28 - 8	\$20 Vs \$30
6 - 4	30 + 5			
7 - 1	10 + 9			
	60 + 7			

Song:

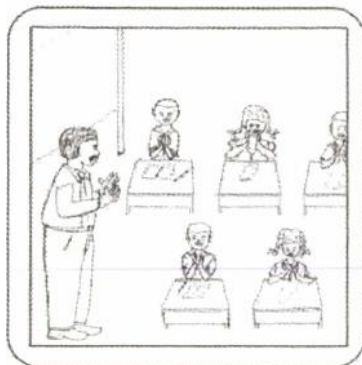
"The Spider Song"

➤ Physical Activity:

"Ole Grady Says"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Patterns

Clap a pattern to the class (example 'clap, clap, clap, pause, clap, clap, clap, Ask the children to listen carefully first and then ask them to join in. After a short while stop and remind them that they are clapping a **pattern**. Clap other patterns with them. You can combine clapping with oral words. Ask a child if they want to make a clapping pattern for the others to follow.

5 min



Capacity – the litre

Tell the children that you are a shopkeeper and that they can come and pretend to buy some 'coke' (or other drink) from you.

15 min

Ask the first child to come up and pour a small amount of liquid into a small cup and ask for \$20. (Child pretends to give you money) Ask the child to stand and hold their cup for the class to see.

Ask another child to come up and pour a large amount of liquid into a much bigger cup and charge \$20. Ask that child to stand at the front with his/her cup.

- Repeat again with two other children, giving each child different amounts and charging \$20. Ask the first child if they are happy with the amount of liquid they have compared to the next child. Ask the others if they are happy. Ask "Do you think it is fair that some have plenty and some have very little for the same amount of money?" Ask "How could it be fair?"

TEACHER: Be sure to use the same measurement to pour the liquid each time.

- Show the children a **litre bottle**. Explain that the amount of liquid this bottle can hold is called a **litre**. Tell them that the **litre is a unit to measure a liquid that everybody should use (standard unit)**. Give some examples of liquids measured using the litre.
- Ask different children to come up again and this time give them all a litre bottle of liquid and charge each \$20. At the end ask if they are all happy with the amount they received, and if it was fair.

Lesson 127

LESSON 128

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 128
- A pencil

2. PART 1: During the Audio Programme

Successors and Predecessors (oral)	Successor, Predecessor Greater and Less (oral)	Column Addition (worksheet)	Addition (worksheet)	Column Addition (worksheet)	Addition (oral)
After 73 Before 73 After 68 Before 68 After 92 Before 92 After 88 Before 88 After 57 Before 57	45 Vs 44 60 Vs 59 82 Vs 83 75 Vs 76 55 Vs 54	2 1 0 3 +4 +2 0 4 3 3 2 0 +3 +0 +3	8 + 2 9 + 3 7 + 4 6 + 4	96 85 +2 + 3 78 63 + 1 + 5	20 + 7 20+2 20+9

Song:

"The Children's Song"

Physical Activity:

If you're Happy and you know it"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

16	10+6
+13	10 + 3
29	20 + 9 = 29
15	10 + 5
+14	<u>10+4</u>
29	20 + 9 = 29
12	10 + 2
+17	<u>10+7</u>
29	20 + 9 = 29
18	10+ 8
+11	<u>10+1</u>
29	20 + 9 = 29

Column Addition

Ask the children to look at their worksheet and find the column addition exercise.

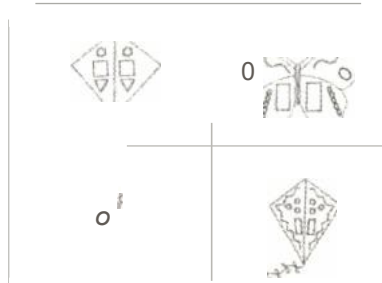
Read the first addition exercise with the children (**16 plus 13**).

Ask "How many tens are there in 16?" (**one**) "How many ones?" (**six**)

TEACHER: Do the same for 13.

- Add 10+10 and 6+3 with the children, making 20 and 9. Ask them to write the answers in the correct places on their worksheets. Ask them to complete the other additions alone.
- When they have completed them, ask them to compare their answers with the child next to them and mark their work. **TEACHER:** Walk around the classroom to each table and check each child's answer. Ask "What do you notice about the answers?" (**They all equal 29**)

10 min



Symmetry

- On their worksheets, ask the children to look in the boxes at the kites. Tell them that they will see that one side has been draw and the other is empty. Ask them to copy the pattern onto the empty side so that the two sides are **symmetrical** (same picture and same distant from the middle line).

10 min

EXTRA TIME: Oral Addition – Counting on 40

Tell the children that they are going to add on from 40 using their fingers.

- Write **40** on the board. Tell them they are going to add 4 to 40. Tell them to hold up 4 fingers. Next, tell them to look at the board and say '**forty**' and then count on using their fingers. (**41, 42, 43, 44**). End this exercise by saying '**40 plus 4 is 44**'.

Lesson 128

REVIEW OF WEEK 32

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review thirty-two** is to identify:

- The children's understanding of symmetrical pictures
- Their understanding of the use of the scale to find the heaviest or lightest

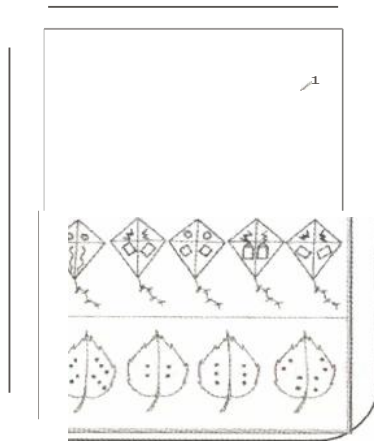
There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

The materials needed for this lesson:

Children: - Worksheet "Review Thirty-Two"
- A pencil

Review activities

Teacher: Facilitate the following activities



Symmetry

5 min

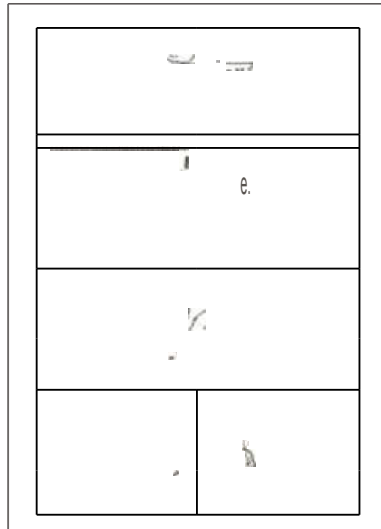
Ask the children to look at the picture of the butterfly on their worksheets.

Ask them to look carefully at the shapes (pictures) on the two sides of the butterfly.

Ask them to make sure that all the shapes on both sides are the same or symmetrical. If they are not the same, ask them to complete the sides (wings) to make sure they are the same, or symmetrical. (same picture, same form and size and equal distance from the "middle line")

Tell them to colour the butterfly making sure that colours also show symmetry (same colours on both sides).

- Ask the children to look at the kites in the next box. Ask them to look at the patterns on each kite and complete the missing drawings to make sure they are symmetrical.
- Ask them to look at the leaves in the last box. Ask them to look at the patterns on the leaves and complete the missing drawings to make sure they are symmetrical.



Weight/Mass: Heavy and Light

5 min

- Ask the children to turn to the second side of their worksheet and look at the scales. In the first box there are some bananas on the scale. Ask them to circle the heavier bunch of bananas.

In the second picture ask them to circle the lighter.

In the third picture ask them to circle the lighter.

In the fourth picture ask them to circle the heavier.

TEACHER: If you have a scale and objects to weigh in the classroom, use these during this exercise. It is important to let the children practice and find the answers to the questions using a scale.

Review 32

LESSON 129

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **You will need labels and money ("paper money") for 'Shopping Day'.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 129
- Pencil
- Exercise book (for the After-Audio Programme)

2. PART During the Audio Programme

Word Problems Addition and Subtraction (oral)	Greater and Less (worksheet)	Addition (worksheet)	Horizontal Addition (worksheet)
$4 + 1$ $10 - 6$ $4 - 2$	After 49 49 Vs 50 After 59 60 Vs 59 After 69 70 Vs 69 After 79 79 Vs 80	$10 + 6$ $50 + 1$ $30 + 4$	$30 + 4 =$ $40 + 2 =$

➤ **Song:**

"On the Farm"

Physical Activity:

"Let's Make Music"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Money – Shopping Day

20 min

Organize all the children into two groups: some to be sellers and some to be buyers.

With the children's help set up 'shops' around the classroom, using tables as stalls. Place articles for them to sell (fruit, sweets, books pencils, crayons, straws, toys etc.) on the tables. Use the labels that you and the students made in previous lessons. Allow the sellers to decide the prices for each article, and place the correct labels on each of them.

- Distribute some coins and \$20 notes between the children so they may use them to buy items or give change.

Once the stalls have been set up, tell the children that when they buy things they must ask the price. Tell the sellers to count their money and give change if they need to.

Remind the children that they should count the money each time they give or receive change.

TEACHER: Let them play alone for 20 minutes. Ensure that they are correctly using the money. Walk around the classroom and supervise their work. When the activity is completed, collect the money and the labels to use another day.

Shapes

5 min

Play "I'm thinking of a shape". Ask the children to listen carefully to the clues and to draw the shape in their notebook. Give them clues such as:

"I'm thinking of a shape that has 3 points. It is a closed shape. It has 3 straight sides. What shape am I thinking of?" (triangle)

- ▷ *"I'm thinking of a closed shape without straight lines. 'It can roll. What shape am I thinking of?" (circle)*

- ▷ Continue with other shapes by giving some clues, but not all. Ask the children to think of different shapes according to the clues given.

For the next lesson, you will need 100 straws (or sticks) and ties.

Lesson 129

LESSON 130

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's songs ready.
- **Have 100 sticks and ties ready to tie into groups of 10.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 130 (for the After-Audio programme)
- A pencil

2. PART 1: During the Audio Programme

Subtraction and Addition (oral)	Column Addition (worksheet)	Word problems Addition, Subtraction Multiplication (oral)	Successors and Predecessors (oral)	Subtraction (oral)	Word Problems Addition and Subtraction (oral)	Subtraction (worksheet)												
7 + 5 8 - 4 8 + 7 6 + 8 7 - 3 6 - 2	<table><tr><td>1</td><td>4</td></tr><tr><td>2</td><td>1</td></tr><tr><td>+ 3</td><td>+ 1</td></tr><tr><td>2</td><td>1</td></tr><tr><td>2</td><td>1</td></tr><tr><td>+ 2</td><td>+ 4</td></tr></table>	1	4	2	1	+ 3	+ 1	2	1	2	1	+ 2	+ 4	6 + 4 10 - 6 4 x \$20 (\$20 + \$20 + \$20 + \$20)	. 64 78 56 82 94 .	42 - 2 31 - 1 21 - 1 72 - 2 91 - 1 62 - 2	6 + 3 9 - 2 7 - 4	20 + 5 25 - 5 40 + 7 47 - 7
1	4																	
2	1																	
+ 3	+ 1																	
2	1																	
2	1																	
+ 2	+ 4																	

Songs:

"Song for the Number Four" & "The Months of the Year"

➤ Physical Activity:

"Ole Grady Says"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

13	10+3
+14	<u>10+4</u>
27	20+7=27
11	10+1
+16	<u>10+6</u>
27	20+7= 27
12	10+2
+16	<u>10+6</u>
28	20+8=28
16	10+6
+13	<u>10+3</u>
29	20+9=29

Column Addition (homework)

Ask the children to look at their worksheet and find the column addition exercises.

5 min

Read the first addition exercise with the children (**13 plus 14**).

Ask "How many tens are in 13?" (**one**) "How many ones?" (**three**)

TEACHER: Do the same for 14.

Add 10+10 and 3+4 with the children, making 20 and 7. Ask them to write the answers in the correct places on their worksheets.

HOMEWORK: Tell them to complete the other exercises for homework and bring the completed worksheet to the next lesson to be marked.

Counting Objects Grouped by 10's and Estimation

Put about 100 straws or sticks on the table, with some of them tied in groups of ten.

15 min

Ask the children "How many straws do you *THINK* are on the table?", "Are there more than 5?", "...more than 50?", "How do you know this?", "How can we check?"

Ask one child to count, out loud, ten straws from the table and tie them in a bunch. The child can then hold the bunch for the class to see.

Have more children come out and do the same. When they cannot make any more bunches of ten ask them to count the bunches aloud.

Ask questions such as:

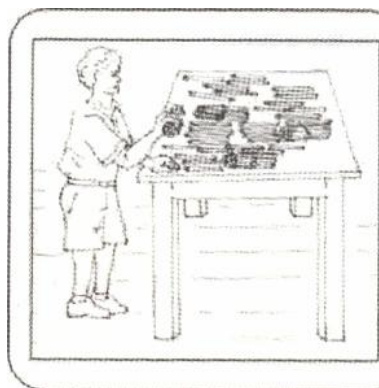
"How close was your estimation?", "Were you nearly right?"

"How many sticks are there in one bunch?"

"How many are there in four bunches?", "... five bunches?"

"How many ones are there?"

TEACHER: Allow the children to manipulate the straws or sticks or sticks themselves while they count them, make bunches of ten and while they explain their answers.



*For the next lesson, you will need bottles and cups of different sizes, a litre bottle, the 'Months Cards', and a calendar.

Lesson 130

LESSON 131

1.

BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IR! calendar.**
- Get the lyrics for today's songs ready.
- **Have bottles and cups of different sizes and a litre bottle ready.**
- **You will need cards with the months of the year and a calendar.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 131 (for the After-Audio Programme)
- A pencil

2.

PART 1: During the Audio Programme

Addition (oral)	Word Problems Addition and Subtraction (oral)	Subtraction (oral)	Word Problems Addition, Subtraction, Multiplication (oral)
5 + 5	1 + 5 + 3	28 - 8	3 + 2
2 + 9	9	25 - 5	5 x \$2
5 + 7	3 - 2	23 - 3	\$10 - \$5
8 + 6		21 - 1	
9 + 4		24 - 4	
		29 - 9	
		27 - 7	

Song:

The Children's Song" and "The Magic Number is Two"

➤ Physical Activity:

"Shake your Body Rap"; "Pretending to be Carpenters"

3.

PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

$\begin{array}{r} 13 \\ +14 \\ \hline 27 \end{array}$	$\begin{array}{r} 10+3 \\ 10+4 \\ \hline 20+7=27 \end{array}$	$\begin{array}{r} 11 \\ +16 \\ \hline 27 \end{array}$	$\begin{array}{r} 10+1 \\ 10+6 \\ \hline 20+7=27 \end{array}$
$\begin{array}{r} 12 \\ +16 \\ \hline 28 \end{array}$	$\begin{array}{r} 10+2 \\ 10+6 \\ \hline 20+8=28 \end{array}$	$\begin{array}{r} 16 \\ +13 \\ \hline 29 \end{array}$	$\begin{array}{r} 10+6 \\ 10+3 \\ \hline 20+9=29 \end{array}$

Homework: Column Addition

- Ask the children to swap their homework from the previous lesson with the child next to them and to mark each others homework as you say the answers.

5 min

Counting 10's and Adding 1

- On their worksheets for this lesson, ask the children look at the sacks. Tell them there are **10 balls** in the sacks and one outside the sack. Tell them to look at the first row. Ask "How many sacks of ten balls are there?" (3) Ask "How many balls are in the three sacks altogether?" (30) Remind them that there is one ball outside the sacks. Ask "How many balls are there altogether?" (31) "Thirty plus one is 31". Ask them to write 31 on the line.
- Allow them to do the same for the next three exercises.

min

Capacity

Show the children a litre bottle. On their worksheets, ask them to look at the containers of the first box and circle the container that they think will **hold more than one litre**.

min

- In the second box, circle the container that will **hold less than one litre**.

TEACHER: If you have a litre bottle and other containers in the classroom, allow the children to use them so they can better understand 'hold more than one litre' and 'hold less than one litre'. Allow them to pour water from the litre bottle into each of the other containers. **(strongly recommended)**

Months of the Year/Ordinals

Say the months of the Year with the children. Ask different groups of child to say the months of the year; first the boys then the girls.

10 min

- Ask 12 children to come to the front of the classroom. Give each a card with a month of the year written on it. Ask them to put the months in order.
- Ask questions to individuals or to the class, such as: "Which is the first month?" (**January**) "Which month comes after March?" (**April**) "During which month is your birthday?" "During which month is Christmas?" (**December**) Allow the children point the months on the calendar.

Lesson 131

LESSON 132

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 132
- A pencil

2. PART 11: During the Audio Programme

Addition (oral)	Column Subtraction (worksheet)	Column Addition (worksheet)	Addition (worksheet)	Horizontal Addition (worksheet)
8 + 5 4 + 6 3 + 9 7 + 7 8 + 9	<div>35 39</div> <div>-1 - 2</div> <div>48</div> <div>- 2</div>	<div>50 60</div> <div>+ 4 + 8</div> <div>74</div> <div>+ 5</div>	<div>20+7</div> <div>40+3</div>	<div>4 (10) + 8 =</div> <div>5 (10) + 3 =</div>

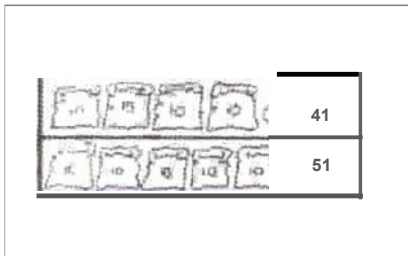
Song:

"Fun with Numbers"

➤ **Physical Activity:** " Shake your Body Rap"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Counting 10's and Adding

On their worksheets, ask the children to look at the boxes. Tell them there are **10 pencils** in each box and one outside the box. Tell them to look at the first row. Ask "How many boxes of pencils are there?" **(4)** Ask, "How many pencils are in the four boxes altogether?" **(40)** Remind them that there is one pencil outside the bags. Ask "How many pencils are there altogether?" **(41)** "Forty plus one is 41" Ask them to write the answer on the line. Ask them to do the same for the next exercises.

5 min

1

10 20 30 40 50 60 70 80 90 100

10 20 30 40 50 60 70 80 90 100

10 20 30 40 50 60 70 80 90 100

10 20 30 40 50 60 70 80 90 100

Sequences of 10

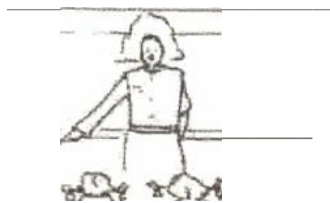
On their worksheets, ask the children to look the squares with numbers. Read the numbers, aloud, with them.

- Ask "Which pattern are these numbers in?" (in a pattern of tens: 1 times 10, 2 times 10, etc.).

Ask them to look at the first row. Ask "Which numbers are missing?" **(20 40 70)** ask them to fill in the missing numbers. Ask them to complete the remaining rows.

10 min

1



Rote Counting by 2's, by 5's, by 10's

Tell the children that they are going to start counting by two's to 40.

Play "Stop and Go". Ask one child to start at 2, then say stop and ask another from a different part of the room to continue. On reaching 40, start counting by 5's to 50, and then by 10's to 100. Go back to counting by 2's and repeat the same way.

10 min

Lesson 132

REVIEW OF WEEK 33

Teacher:

Today there will not be a radio/CD Mathematics lesson.

The main purpose of **review thirty-three** is to write a "class letter":

There are suggested activities on the next page for you to follow **OR** you may choose to **create** or **re-create** other activities to review the topics covered during and after the Audio sessions this week.

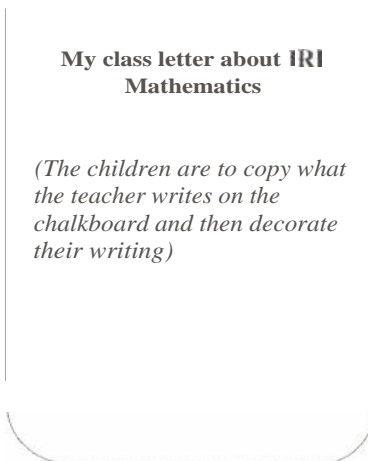
The materials needed for this lesson:

Children:

- Worksheet 'Review Thirty-three'

Review activities

Teacher: Facilitate the following activities



Class Letter

Tell the children that there is only one more week of our Radio Mathematics classes and that, as a group, you are going to write a class letter about IRI Mathematics. The letter can be addressed to:

The Head Teacher
OR
The children's parents'
OR
A friend

20 min

Let the children form groups and tell them to think about the Mathematics class and what they would like to tell their parents or Head Teacher or friends. Following are suggestions for what they may want to write about:

- what they have learnt,
- what they enjoy about the Radio Mathematics lesson,
- their favourite song or radio character
- other topics related to the IRI Mathematics class

In their groups, encourage all the children to talk about what they would include in the letter.

Ask the children to tell you what to write in the letter.

TEACHER: Write what the children tell you on the chalkboard. Once all their thoughts are written on the board, ask the children to copy it into their worksheets. Tell them that they can use both pages and decorate them with Mathematics pictures.

Allow the children to give it to the person whom the letter is addressed to (parents, head teacher, friend, etc.).

***For the next lesson, you will need 100 sticks (or straws) and ties.**

Review 33

LESSON 133

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Have 100 sticks and ties ready to tie them in groups of ten.**
- Participate with the children during the Audio lesson.

• **MAKE SURE THAT EACH CHILD HAS:**

- Colouring pencils
- Worksheet: lesson 133

2. PART 1: During the Audio Programme

Addition (oral)	Addition (oral)	Column Subtraction (worksheet)		Successors Greater and Less (worksheet)	Column Subtraction (worksheet)	
$6 + 7$ $5 + 8$ $4 + 9$ $7 + 5$ $8 + 3$ $9 + 7$	10+9	94	69	58	36	43
	20+3	- 2	- 2	58 Vs 59	- 1	- 2
	30+7			67		
	40+ 1	83	42	67 Vs 68	27	18
	50+4	- 1	-1	70	- 1	- 2
				70 Vs 71		
				84		
				84 Vs 85		

Song:

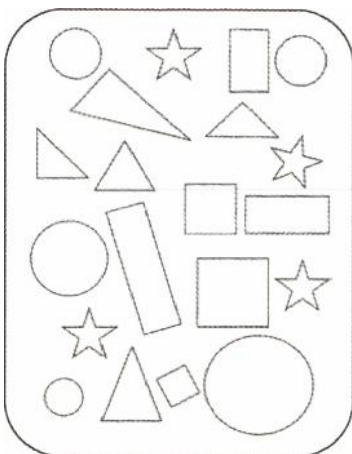
"The March of Numbers"

Physical Activity:

"Ole Grady Says"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities



Shapes

- on their worksheets, ask the children to look at the shapes. Ask them if they know the names of any of the shapes on that page. (**square, circle, triangle, rectangle, star**)

Ask the children to list the properties of a circle for you (**closed, curved, can roll**).

Then ask them to list the properties of a triangle, (**closed, three straight sides three points**)

- p- Ask, "*What is the difference between a rectangle and a square?*" (**all sides are the same length on the square, two sides are longer on the rectangle**)

- On their worksheets, ask them to colour the circles one colour, the triangles another, the square another, the rectangles a different colour and the stars a different colour.

10 min



Counting Objects Grouped by 10's and Estimation

Put about 100 straws or sticks on the table and tie some of them in groups of ten.

Ask the children "*How many straws do you THINK are on the table?*"

"*Are there more than 10?*", "*More than 60?*", "*How do you know?*", "*How can we check?*"

Ask one child to count, out loud, ten straws from the table and tie them in a bunch. The child can then hold the bunch for the class to see.

- Have more children come out and do the same. When they cannot make any more bunches of ten count the bunches out loud with the class and any ones (single straws or sticks) left on the table.

Ask questions such as: "*How close was your estimation?*", "*Were you nearly right?*", "*How can you improve your estimation if it's needed?*", "*How many sticks are in one bunch?*" "...in two bunches?", "*How many in five bunches?*"

15 min

For the next lesson, you will need 70 sticks (or straws), ties, 3 units of measurement (Metre, Kilogram and Litre) and a scale.

LESSON 134

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- **Get 70 sticks or straws and ties ready.**
- **Have a scale and the units of measurement ready: Metre, Kilogram and Litre.**
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 134
- Exercise Book (The After-Audio Programme)
- A pencil.

2. PART 1: During the Audio Programme

Readiness for Division and Subtraction	Addition (oral)	Column Subtraction (worksheet)	Column Addition (worksheet)	Greater and Less (worksheet)
8 balloons for 2 persons. 8 - 4 4 - 1	10 + 7 40 + 5 60 + 3 30 + 8 70 + 2	86 98 69 - 4 - 7 - 5 74 - 3	24 4 32 + 3 +5 + 6 45 + 2	12 ... 12 Vs 13 20 . ; 20 Vs 21 49 49 Vs 50

Song:

"The Spider Song"

More Entertainment:

"Playing Musical Instruments"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

Counting Objects Grouped by 10's and Estimation

Put about 70 straws or sticks on the table and some ties. Ask *"How many straws do you THINK are on the table?" "Are there more than 10?", "...more than 100?", "...more than 50?" "How do you know?", "How can we check?"*

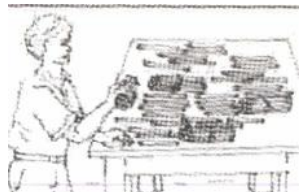
Ask one child to count out loud ten straws from the table and tie them in a bunch. The child can then hold the bunch for the class to see. Tell the other children to draw that bunch of ten sticks (or straws) in their Mathematics exercise book.

Have more children come out and do the same, while each time the other children draw the bunch of 10's straws in their books. When they cannot make anymore bunches of ten, count the bunches out loud with the class and any ones (single sticks or straws) that are left on the table. Then, tell the children to count the bunches of straws that they have drawn in their exercise books.

Ask questions such as:

"How close was your estimation?", "Were you nearly right?", "How many sticks are in one bunch?", "...in two bunches?" "...in five bunches?", "How many ones are there?"

15 min



Measurement

➤ Write the words **metre**, **kilogram** and **litre** on the board. **Show these units physically**, to the children, using their respective names (labels). For example, show the litre unit and emphasize that this is a standard unit of measurement and that it is called a 'litre'. Also show the scale when displaying the units of measurement. Let the children read these names and repeat them. Allow them to observe each unit of measurement.

10 min

➤ Tell the children you need to measure the length of the floor. Ask, *"Would you use metres, kilograms or litres?" (metres)* Remind them of the "metre stick" and how you measure **length** using the **metre**.

➤ Tell the children you need to measure how many potatoes you bought from the market. Ask *"Would you use metres, kilograms or litres?" (kilograms)* Remind them of the scales and kilogram weight and how you measure **weight/ mass** with **kilograms**.

➤ Tell the children that you needed to measure how much water your water tank holds. Ask, *"Would you use metres, kilograms or litres?" (litres)* Remind them of the litre bottle and how you measure **liquids** using **litres**.

HOMEWORK: Ask the children to draw a metre, a kilogram and a liter on the back of their worksheet as homework.

Lesson 134



LESSON 11351

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
- Place the radio/CD player in the appropriate location in the classroom.
- Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
- **Record the lesson number in your IRI calendar.**
- Get the lyrics for today's song ready.
- Participate with the children during the Audio lesson.

• MAKE SURE THAT EACH CHILD HAS:

- Worksheet: lesson 135
- A pencil
- 17 counters (for the After-Audio programme)

2. PART 1: During the Audio Programme

Addition (oral)	Addition (oral)	Column Subtraction (worksheet)	Column Addition (worksheet)	Greater and Less (worksheet)	Successors Greater and Less (worksheet)
1 + 9	20+8	68 89 96	2 1 2	70 Vs 80	16
3 + 7	50+3	- 5 - 7 - 3	0 4 2	72 Vs 82	16 Vs 17
5 + 6	80 + 1		+4 +0 +1	74 Vs 84	38
8 + 4	90+5			76 Vs 86	38 Vs 39
6 + 5	70+9				12 . .
					12 Vs 13
					67
					68 Vs 67

Song:

"The Magic Number is Two"

Physical Activity:

"Cooking in the Kitchen"

3. PART 2: The After-Audio Programme

Teacher: Facilitate the following activities

14	16	13
4	-	- 3
10	10	10
15	17	12
- 5	- 7	- 2
10	10	10

Column Subtraction

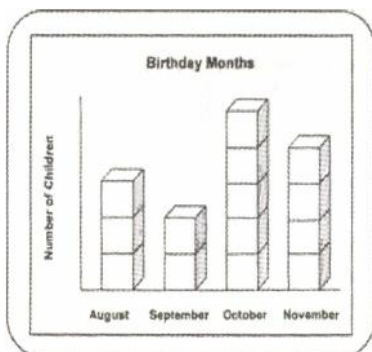
- On their worksheets, ask the children to look at the subtraction exercises. Ask them to read the first exercise, aloud. **(14 – 4)**. Ask, "How many tens does 14 have?" **(one)** "How many ones?" **(four)**
Ask them, "If you take away 4 from 14, would you have any ones left?" **(no)** "Would you still have the 10 left?" **(yes)** **14 – 4 = 10**.
- Encourage the children to do the same exercise using counters. They can put 14 counters in a line and see that there is one 10 and four 1's. Then they can take away 4 (the four 1's) and see that **14 – 4 = 10**.
- Ask the children to try and complete the remaining exercises. Ask them if they feel comfortable completing the exercises alone, then to do so. **TEACHER:** Walk around the classroom and help any children who may need help.
- When the children have finished the exercises, ask everyone to mark their own work while you say the answers aloud. Discuss how all the answers are **10**.

15 min

Statistics (reading block graphs)

- Ask the children to look at the graph at the bottom of the page. You may want to copy this graph onto the board. Remind them it is called a **block graph**. It shows the birthdays of a group of children (your pupils). Ask "What does each block represent?" **(one child)**
Ask them to look at the first block, you can also point to this block on the blackboard. Explain that it shows the birthdays in August. Ask "How many birthdays are there in August?" **(2)**
Continue asking similar questions for the other months.
Ask questions such as:
"Which month has the most birthdays?" **(September)**
"How many more birthdays are there in September than in August?" **(3)**
"Which month has the least birthdays?" **(August)**
"How many children have birthdays in these four months?" **(14)**
"How many children in our class have their birthday in September?" Encourage the children to add that many blocks to the graph in September. Do the same in the graph that you have on the chalkboard.

10 min



Check the worksheets to see the children's progress and give special attention to those who need it.

Lesson 135

CLOSING LESSON FOR GRADE

1. BEFORE THE MATHEMATICS CLASS

Teacher:

- Ensure the batteries for the radio are charged and the radio/CD player is in working condition.
 - Place the radio/CD player in the appropriate location in the classroom.
 - Tune the radio to the correct channel or insert the CD with today's lesson into the CD player.
 - **Record the closing lesson in your MI calendar.**
 - Get the lyrics for today's songs ready.
- a Participate with the children during this closing lesson.

2. PART During the Audio Programme:

Song	Pretending to be Musicians	Story by Freddie Frog	Song	Song, Dance and Congratulations
- The Spider Song"	<ul style="list-style-type: none"> - Playing the guitar - Beating the drums - Playing the piano - Playing the Flute 	Identifying Sound of Animals: <ul style="list-style-type: none"> - Donkey - Cat - Chicken - Hawk - Mouse 	<ul style="list-style-type: none"> - Girls sing: March of Numbers - Boys sing: Song for Number Four 	<ul style="list-style-type: none"> - "One is Important" - Teacher Mark congratulates the children - "Shake your Body" Rap and dance

3. PART 2: The After-Audio Programme

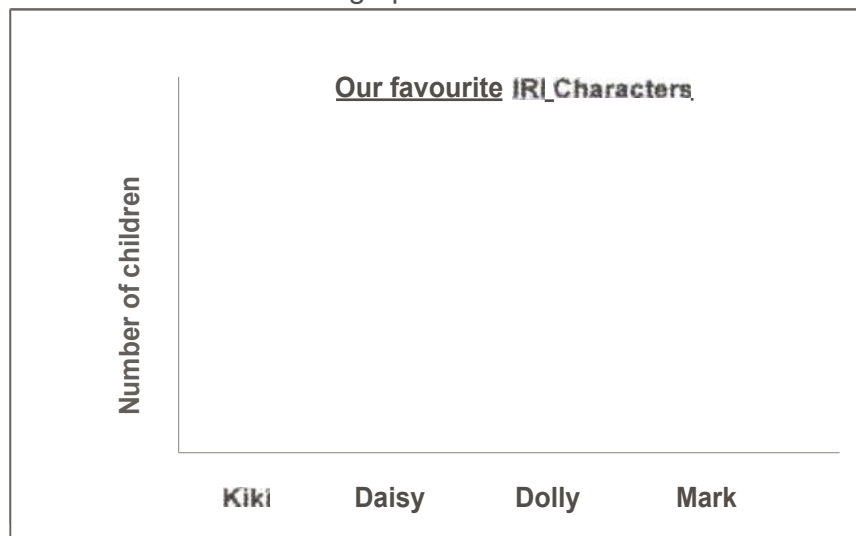
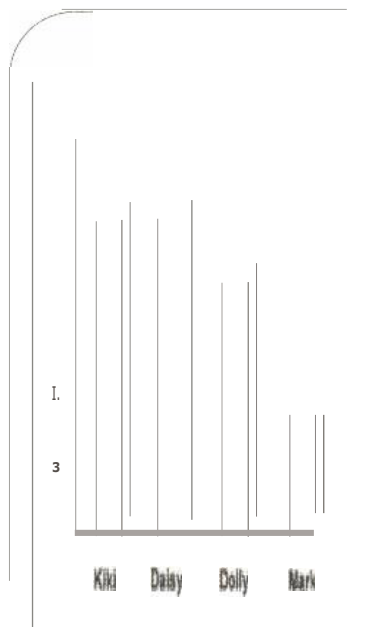
Teacher: Facilitate the following activities

Statistics – Audio Characters Block Graph

- Tell the children that, as a group, you are going to do a class graph to show your favourite Radio Mathematics Character.

TEACHER: Draw the graph below onto the chalkboard.

20 min



Ask the children to think about who their favourite character is. Ask the children to come out one at a time and draw a block to represent themselves above the name of their favourite character.

- After everyone has come out and chosen one character, count the number of blocks above each name and write the number of votes each character received.

Ask questions such as: "Which character is the most popular?", "How many more of you like _____ than _____?"

TEACHER: If there is additional time, ask the children to copy the block graph into the last page (Goodbye IRI Maths) of their worksheet.

Closing Lesson

MATHEMATICS CONTENT FOR TERM 3

MATHEMATICS CONTENT	Month 7 List of Topics (Lessons: 101 to 109)	Month 8 List of Topics (Lessons: 110 to 128)	Month 9 <u>List of Topics (Lessons: 129 to 136)</u>
NUMERATION, COUNTING	<ul style="list-style-type: none"> - Rote counting by 5's, 5 to 50. - Counting by 2's. - Counting groups of 10's up to 100. - Counting $a0 + 1$, $a0 + b$. e. g : 3 groups of tens and a single 1; and 3 groups of tens and 7 ones - Counting objects or elements of a subset. E.g.: Circle a group of 10 out of 14. - Sequences by 10's, by 5's, by 1's. 	<ul style="list-style-type: none"> - Counting $a0 + 1$; $a0 + 2$, $a0 + b$. e.g.: 4 tens and 1 or 4 tens and 2 or 8 tens and 9 (eighty, eighty-one, eight-two, ... eighty-nine, etc.) - Counting $20 + b$ objects, groups of tens. E.g.: 10, 20, 21, 22, 23, 24 (2 tens and 4) - Counting groups of objects by 10's. - Groups of 10's out of groups of objects between 11 and 19 and $a0 + 9$ (in 79, there are 7 groups of tens and 9 ones) - Counting $a0 + 1$, $a0 + b$. e. g : 3 groups of ten's and a single 1, 3 groups of tens and 7 ones. 	<ul style="list-style-type: none"> - Counting $a0 + b$. E.g.: Group of 80 and 8 (Eighty-one, eighty —two, ...eighty-eight) - Counting groups of 10's and 1's. - Sequences of 10's
SUCCESSORS	<ul style="list-style-type: none"> - From 1 to 98 (Oral, written answers, written exercises, flash cards, number square) - Successors of $a9$. E.g.: After 9, after 49, after 89. 	<ul style="list-style-type: none"> - From 1 to 98. E.g.: after 12, after 20. - Successors of $a9$. E.g.: after 69 (Oral, written answers, written exercises) - Recognize as a successors of the number "a" the number $a + 1$ (e.g.: 7 + 1 is 8 and 8 comes after 7) 	<ul style="list-style-type: none"> - Successors of $a9$. E.g.: after 29, after 79, after 89. - Successor of any two digit number, combine with greater and less. E.g.: After 49, 49 Vs. 50.
PREDECESSORS	<ul style="list-style-type: none"> - Predecessors, $a0$ to 50: e.g.: before 20, before 50, before 90. - Predecessor, ab. E.g.: Before 79, before 70 (from 2 to 99). 	<ul style="list-style-type: none"> - Predecessor of numbers between 2 to 99. Combine with greater and less. E.g.: Before 61 and 60 Vs 61. ? 	<ul style="list-style-type: none"> - Predecessor of numbers between 2 to 99. Combine with greater and less. E.g.: Before 99 and 98 Vs 99.
SUCCESSOR AND PREDECESSOR	<ul style="list-style-type: none"> - Any two digit number. E.g.: After 78, before 40, after 33. 	<ul style="list-style-type: none"> - Predecessor of two digit numbers Combine with successor. E.g.: Before 68, after 68. 	<ul style="list-style-type: none"> - Any two digit number - Predecessor, a number combined with successor. E.g.: Before 90, after 90
GREATEST AND LEAST	<ul style="list-style-type: none"> - "Greater" and "Less" from 0 to 99, e.g.: 56 Vs. 65. - Greatest and Least, from 0 to 100. - More and less with coins and bills, e.g.: (\$5 + \$20) vs. (\$10 + \$20). 	<ul style="list-style-type: none"> - More, greater: ac Vs. be E.g 58 Vs. 38 - Greater and less any two digit number: 45 Vs 95; 67 Vs. 63. - More and less with coins and bills. (\$20 + \$20) vs. (\$10 + \$20)., \$50 vs. \$60 	<ul style="list-style-type: none"> - More, Less, Greater and Less: ac Vs. be. E.g.: 46 Vs. 86 - More, less, greater, greatest and Least any two digit number. - More and less with coins and bills. (\$20 + \$20 + \$20) vs. (\$10 + \$20 + \$10).

MATHEMATICS CONTENT	Month 7 List of Topics (Lessons: 101 to 109)	Month 8 List of Topics (Lessons: 110 to 128)	Month 9 List of Topics (Lessons: 129 to 136)
NUMERATION, READING AND WRITING	<p>Reading and writing addition and subtractions exercises.</p> <ul style="list-style-type: none"> - Reading and writing numbers as part of an answer to an exercise. 	<p>Reading and writing addition and subtractions exercises.</p> <ul style="list-style-type: none"> - Reading and writing numbers as part of an answer to an exercise 	<p>Reading and writing addition and subtractions exercises.</p> <p>Reading and writing numbers as part of an answer to an exercise</p>
OPERATION: ADDITION	<p>ORAL: (with fingers, counters or objects, or with out any support):</p> <p>Case: $a + b$ is less or equals 10 (12 or 15). E.g.: $6 + 3$, $6 + 2$, $8 + 5$.</p> <p>Case: $a + b + c$ less or equals 10 (or 12 or 15). E.g.: $6 + 1 + 3$, $7 + 3 + 2$.</p> <p>HORIZONTAL:</p> <p>Case: $a + b + c$, less or equals 9 (12 or 15). E.g.: $3 + 5 + 1 =$</p> <p>Case: $a + b$, less or equals 15. E. g.: $8 + 6 =$</p> <p>COLUMN:</p> <ul style="list-style-type: none"> - Case: $a + b + c$ less or equals 9. E.g.: $\begin{array}{r} 3 \\ 2 \\ +4 \end{array}$ 	<p>ORAL:</p> <ul style="list-style-type: none"> - Case: $a + b$ is greater than 10. E.g.: $6 + 9$, $7 + 7$. - Case: $a + b$, with emphasis in $a + 0$ and $0 + b$. E.g.: $7 + 0$ and $0 + 5$ Cases: $ab + 1$, $a0 + 1$ and $a0 + 2$, with a between 2 and 9. E.g.: $78 + 1$, $90 + 1$, $70 + 2$. - Cases: $a + b + c$ is less or equal 10 and $a + b$, emphasis on sums greater than 10. E.g.: $7 + 1 + 5$. $3 + 5 + 9$. - Cases: $20 + b$, $30 + b$ e. g.: $20 + 9$, $30 + 7$ and $a0 + b$. E.g.: $80 + 7$, $90 + 4$ Case: $a9 + 1$. E.g.: $49 + 1$, $39 + 1$. Case: $a + b + c$, $a + b \leq 10$. E.g. $5 + 3 + 8$, $4 + 2 + 9$ (emphasis in sums > 10) - Case: $a0 + 1$, $25_a \leq 9$. E.g.: $80 + 1$ <p>HORIZONTAL:</p> <ul style="list-style-type: none"> - Case: $a + b =$, with emphasis on $a + 0$ and $0 + a$ E.g.: $7 + 0$, $0 + 8$ Case: $a + b + c$. E.g.: $4 + 6 + 9 =$ Case: $a + b$, with emphasis on sums greater than 10. E.g.: $7 + 9$ Case: $a0 + b$. E.g.: $90 + 6$ Case: $a9 + 1$. E.g.: $29 + 1$, $89 + 1$) Case: $a + b + c$ with $c = 1$. E.g.: $8 + 2 + 1$ <p>COLUMN:</p> <p>Case: $a + b + c$ is less or equals 6. Introduction to reading. E.g.: $\begin{array}{r} +1 \\ 34 \end{array}$</p>	<p>ORAL:</p> <p>Case: $a + b + c$. E.g.: $5 + 7 + 9$. Case: $a0 + b$. E.g.: $90 + 5$, $30 + 7$ Case: $a + b$ with sums greater than 10. E.g.: $9 + 9$</p> <p>HORIZONTAL:</p> <p>Case: $a + b$ with emphasis on sums greater than 10.</p> <p>- Case: $a0 + b$. E.g.: $40 + 5$, $60 + 7$</p> <p>COLUMN:</p> <p>Cases: $a + b$ and $ab + c$, with emphasis on $b = 0$ or $c = 0$. E.g.: $\begin{array}{r} 20 \quad 97 \quad 7 \quad 8 \\ +2 \quad +0 \quad \quad +0 \end{array}$</p> <ul style="list-style-type: none"> - Cases: $a + b + c$ less or equal 9. E.g.: $\begin{array}{r} 3 \\ 2 \\ +4 \end{array}$

MATHEMATICS CONTENT	Month 7 List of Topics (Lessons: 101 to 109)	Month 8 List of Topics (Lessons: 110 to 128)	Month 9 List of Topics (Lessons: 129 to 136)
		$\begin{array}{r} +15 \\ \text{Case: } ab + c, c=1 \text{ or } c=2. \text{ E.g.: } 67 \ 78 \\ \phantom{\text{Case: } ab + c, c=1 \text{ or } c=2. \text{ E.g.: }} + 1 \ +2 \end{array}$ - Case: $ab + c$, in general. E.g.: $50 \ 63$ $\phantom{\text{Case: } ab + c, \text{ in general. E.g.: }} + 2 \ +2$	
OPERATION: SUBTRACTION	<p>ORAL (with counters, fingers, pictures) Case: $a - b$ is between 1 and 9 and b is different than zero E.g.: $6 - 4$; $7 - 7$; $9 - 1$, $8 - 4$. Cases: $a - b$ and $a - 0$. E.g.: $4 - 2, 5 - 0$. Cases: $a - b$ and $a - a$. E.g.: $7 - 4, 7 - 7$</p> <p>HORIZONTAL: Case: $a - b$ is between 0 and 9. E.g.: $5 - 3 =$; $9 - 8 =$; $8 - 1 =$. Cases: $a - a$, $a - 0$. E.g.: $4 - 4 =$, $6 - 6 =$</p> <p>COLUMN: Case: $a - b$ is less or equals 9. $\begin{array}{r} 7 \\ 5 \end{array}$ Case: $a - 0$ and $a - a$. E.g.: $\begin{array}{r} 6 \quad 6 \\ -0 \quad -6 \end{array}$</p> <p>- Case: $ab - cd$ is greater or equals 10. E.g.: $\begin{array}{r} 23 \quad 41 \\ -12 \quad -21 \end{array}$</p> <p>- Case: $a0 - b0$. E.g.: $40 - 10, 30 - 20, 50 - 40$</p>	<p>ORAL: Case: $a - b$. E.g.: $8 - 3$ Case: $ab \ 1$, b is different than zero. E.g.: $42 - 1$; $25 - 1$. Case: $2b - b$. E.g.: $24 - 4, 25 - 5, 26 - 6$. Cases: $a - b$, $a - a$, $a - 0$. E.g.: $8 - 6, 8 - 8, 4 - 0$ Case: $ab - b$, combine with counting. E.g.: $12 - 2$; $23 - 3$.</p> <p>HORIZONTAL - Cases: $a - b$, $a - a$, $a - 0$. E.g.: $\begin{array}{r} 8 - 6 =, \\ 9 - 7 =, 5 - 0 = \end{array}$ Case $a - b = 5$, a is a number between 5 and 10 (e.g.: $5 - 0, 6 - 1, 7 - 2$).</p> <p>COLUMN: - Case: $a - b$, $a - a$, $a - 0$. E.g.: $\begin{array}{r} 6 \quad 9 \quad 5 \\ -4 \quad -9 \quad -0 \end{array}$</p> <p>Cases: $ab - cd$ is greater or equals 10 and $b=d$ and $d=0$. E.g.: $\begin{array}{r} 86 \quad 95 \\ -46 \quad -65 \end{array}$</p> <p>Case: $ab \ cd$, mix with column addition. Emphasis on $+$ and $-$ (symbols)</p>	<p>ORAL: Case $a - b \leq 4$. E.g.: $5 - 1$; $3 - 2$ Case $6 - b$; $7 - b$; $8 - b$ and b is a number between 0 and 8 (e.g.: $6 - 4$; $7 - 7$; $8 - 4$). Cases: $a - 0$; $a - a$. E.g.: $4 - 0$; $4 - 4$) Case $ab - 1$. E.g.: $12 - 1$; $20 - 1$ Cases: $ab - b$, $2b - b$. E.g.: $15 - 5$; $17 - 7$)</p> <p>COLUMN: - Case: $ab - c$, c can be 1 or 2. E.g.: $\begin{array}{r} 23 \quad 34 \quad 76 \\ -1 \quad -2 \quad -1 \end{array}$</p> <p>- Case: $ab - c$ and emphasis $b=c$ and $c=0$. E.g.: $\begin{array}{r} 34 \ 56 \ 42 \\ -3 \quad -6 \quad -0 \end{array}$</p>
ADDITION AND SUBTRACTION (COMBINATION)	<p>Oral: $a + b$ and $a - b$. E.g.: $4 + 2, 9 - 3, 9 - 7, 3 + 8, 4 - 0, 9 - 0$. Column addition and subtraction, one and two digit numbers, without regrouping. E.g.: $\begin{array}{r} 34 \quad 75 \end{array}$</p>	<p>Column addition and subtraction, one and two digit numbers, without regrouping. E.g.: $\begin{array}{r} 45 \quad 45 \\ +33 \ -14 \end{array}$</p>	<p>- Case: $ab + c$, with emphasis in reading $+$ and $ab - c$ with emphasis in reading</p>

MATHEMATICS CONTENT	Month 7 List of Topics (Lessons: 101 to 109)	Month 8 List of Topics (Lessons: 110 to 128)	Month 9 List of Topics (Lessons: 129 to 136)
	+15 - 30		
WORD PROBLEMS	<ul style="list-style-type: none"> - Stories, where addition and subtraction are applied to find the answer. - Value of coins or bills (\$1, \$5, \$10, \$20, \$100) and addition. - Playing store with money. - Comparing coins (more or less) - Stories with days of the week. - <u>Create stories based on pictures.</u> 	<ul style="list-style-type: none"> - Word problems (stories): Value of coins and bills; applying addition ; buying and selling. - More and less with money. E.g.: \$60 vs. \$55. - Word problems (stories) applying addition, subtraction, multiplication (as repeated adds) 	<ul style="list-style-type: none"> - Word problems (stories) applying addition, subtraction, multiplication (as repeated adds). - Fractions, comparing size. - Word problems related to money.
FRACTIONS	<ul style="list-style-type: none"> - Writing fractions, copying, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. - Reading fractions, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. - Parts of a figure that are shaded, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{4}$. Circle the fraction that represents the shaded part. - Selecting shapes that are divided in $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. 	<ul style="list-style-type: none"> - Reading and writing fractions, $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. - Parts of a shape as halves, thirds, fourths E.g.: shading $\frac{1}{2}$, $\frac{3}{4}$, $\frac{2}{3}$. 	
ORDINALS	<ul style="list-style-type: none"> - Ordinals: First to fifth - Ordinals 1st to 12th with months of the year and events. Emphasis on first to fifth. 	<ul style="list-style-type: none"> - Ordinals First to Fifth - Ordinals with months of the year First to twelve). Emphasis on first to seventh. 	<ul style="list-style-type: none"> - Ordinals 1st to 12th - Ordinals with months of the year: p^h to 12th and 1 to 12th.
ESTIMATION	<ul style="list-style-type: none"> - Estimation, combined with measurement: Length. - Estimation, groups of 10's counters. - Estimation with groups of objects between 1 to 50; 1 to 60 	<ul style="list-style-type: none"> - Estimation, combined with measurement (Length, capacity, weight) - Estimation with groups of objects between 1 and 70; 1 to 100 and application of more, less and counting by 10's. 	<ul style="list-style-type: none"> - Estimation, combined with measurement (Length, capacity, weight) - Estimation with groups of objects between 1 to 70; 1 to 100 and application of more, less and counting by 10's.
GEOMETRY	<ul style="list-style-type: none"> - Direction and movement: Above, below, in front, behind, between, on, in., next to. - Symmetry. Recognizing it (in a butterfly, shapes, curtains, etc.) - Shapes: Triangle, square, rectangle and circle. Focus on triangle and its properties. 	<ul style="list-style-type: none"> - Direction and movement: Above, below, in front, behind, between, on, in., next to. - Shapes: Triangle, circle and their properties. - Open and closed lines. - Symmetry. Recognizing it (in a butterfly, shapes, curtains, etc.) 	<ul style="list-style-type: none"> - Shapes: Triangle, square, rectangle and circle and their properties. - Directions and movement: Above, below, in front, behind, between, on, in., next to. - Closed and open "lines".
PATTERNS	<ul style="list-style-type: none"> - Patterns and Symmetry. - Patterns with shapes, sounds, 	<ul style="list-style-type: none"> - Patterns with numbers and shapes. - Patterns with colors, with sounds. 	<ul style="list-style-type: none"> - Patterns with numbers and shapes.

MATHEMATICS CONT NT	Month 7 List of Topics (Lessons: 101 to 109)	Month 8 List of Topics (Lessons: 110 to 128)	Month 9 List of Topics (Lessons: 129 to 136)
	numbers (recognize and draw them)		
LENGTH	<ul style="list-style-type: none"> - Measuring Length with a ruler (1 to 10 cm) - Comparing lengths: Shorter, longer, longest, shortest - Height, comparing. 	<ul style="list-style-type: none"> - Measuring length with a ruler (1 to 10 cm). - Measuring length, cm. - Standard unit: METRE 	<ul style="list-style-type: none"> - Lengths of different objects and comparing them. - The standard unit: METRE.
TIME	<ul style="list-style-type: none"> - Clock, hours - Months of the year and a calendar. 	<ul style="list-style-type: none"> - Clock, hours using "O'clock" - Months of the year and a calendar. 	<ul style="list-style-type: none"> - Months of the year and events (e.g.: National holidays) - Months of the year and the calendar. Ordinals with months of the year.
MONEY	<ul style="list-style-type: none"> - Recognizing coins and Bills: \$1, \$5, \$10, \$20, \$100. - Value of a group of coins and bills. - Shopping: Ask the prices and read the labels objects 	<ul style="list-style-type: none"> - Recognize coins and bills and add them - Shopping using coins and bills (\$20 and \$100). Reading labels with prices, asking prices and giving changes. - Adding groups of coins and bills in groups of 10's - Equivalence: e.g.: \$20 equivalent to two \$10 or one \$10 and two \$5 or four \$5. 	<ul style="list-style-type: none"> - Equivalence: e.g.: \$10 is two \$5 - Value of groups of coins and bills - Shopping using coins and bill (\$20) - Reading labels with prices, asking prices and giving changes.
STATISTIC (BASIC)	<ul style="list-style-type: none"> - Reading graphs (two and three columns) and finding relations. - Construction of graphs. 	<ul style="list-style-type: none"> - Reading graphs (two and three columns and different topics). - Collection of data and making a graph (three columns). 	<ul style="list-style-type: none"> - Reading graphs (two and three columns and different topics) and interpretation of the data. - Construction of graphs.
MASS/WEIGHT	<ul style="list-style-type: none"> - Light or heavy. Collection of light and heavy objects. - Heavier, lighter, heaviest. - Scales for measuring mass/weight. - Not standard units. 	<ul style="list-style-type: none"> - Light, heavy, heavier, lighter, heaviest - Kilogram. 	<ul style="list-style-type: none"> - Kilogram - Weight (Mass): Light, heavy, heavier, lighter, heaviest.
CAPACITY	<ul style="list-style-type: none"> - "Hold more", hold less" - Capacity and estimation (cup, different sizes of bottles.). - "Holds the most", holds the least". - Not standard units. 	<ul style="list-style-type: none"> - Standard unit: The LITRE.. - Hold "more than litre", "hold less than a litre". Litre bottle, "hold the least", "hold the most" 	<ul style="list-style-type: none"> - Standard unit: The litre. - Hold "more than litre", "hold less than a litre". Litre bottle.

IRI SONGS FOR GRADE ONE

Composed by PETER CALLENDER

THE CHILDREN'S SONG

VERSE 1

We are the flowers, beautiful and bright,
Whether yellow, red, brown or white,
We are so special in our own little way,
Reaching for the stars as we learn and play.

CHORUS

Let's sing a song for all the children,
Let's lift our voices for the little ones,
With life and laughter to brighten up your
day,
So let's be joyful in every way,

Singing la, la, la,
la, la, la,
la, la, la,
la, la, la, la. (repeat)

Verse 2

In the morning like the birds we sing,
We add rich music to everything,
Even when times are bad,
Or you're feeling sad,
With our happy faces we'll make you glad.

FUN WITH NUMBERS

We're going to have fun with numbers,
So much fun with numbers,
We're going to have fun with numbers,
It's so easy you will see.

It's so simple you will see,
Now listen very carefully,
Whether one, two or three,
This game was meant for you and me,
One, two, three, four, five,
It keeps your mind alive.

THE MAGIC NUMBER IS TWO

CHORUS

The magic number is two,
The magic number is two,
This song is for me and you,
And all the children too.

Verse

Two hands for holding,
Two feet for walking,
Two eyes for seeing,
Two ears for hearing.

THE INSTRUMENT SONG

CHORUS

Come on boys and girls,
Let's make music for the world,
Our instruments we will play,
And make music every day.

Verse 1

We will play on the drum,
We will play on the trumpet,
We will play on the piano,
We will play on the sitar.

Verse 2

We will play with the tambourine,
We will play on the flute,
We will play on the guitar,
We will play on the violin.

Verse 3

We will play on the banjo,
We will play with the shak-shak,
We will play on the steel pan,
We'll play with the harmonium.

I WOULD FLY

Verse

If I had wings like a Kiskadee,
Or I had wings like a Blue sakee,
I would fly, up, up in the sky
Like the birds that fly so high.

CHORUS

Fly, fly, fly, fly,
Way up in the sky.

I will fly, fly, fly, fly,
Way up in the sky

Verse

Two little birds sitting on the wall
One name Seeta
One name Paul.

Fly away Seeta
Fly away Paul

Lift your wings and fly above all.

ON THE FARM

CHORUS

On the farm with Mr. Joe,
I love how the animals go,
On the farm with Mr. Joe,
Hear what the animals say.

Verse I

The cow go moo, moo,
The cow go moo, moo,
The cow go moo, moo,
The cow go moo, moo.

Sheep go maa, baa, - (repeat four times)
Dogs go arf, woof, arf, (repeat four times)

Verse 2

Horse go neigh ... (repeat four times)
Turkey go 00000 ... (repeat four times)
Chicks go chick, chick (repeat four times)

Verse 3

Birds go (whistle ...) – (repeat four times)
Pig go oink, oink - (repeat four times)
Donkey go hee-haw – (repeat four times)

Duck go quack, quack ... - (repeat four times)

ONE IS IMPORTANT

CHORUS

One is important you'll see,
One is important to me,
One is important you must agree,
One is important to you and me,
La, la, la, la, la, la, la, la, la, la.

Verse

One sun to light our day,
One tree to plant along the way,
One moon to shine by night,
One smile to make your face bright.

THE SPIDER SONG

Verse

Incy, wincy spider went up the water pane,
Down came the rain and washed her in the drain,
Out came the sun dried up all the rain
boys and girls she will play again.

CHORUS

Who's that Spider?
It's incy, wincy Spider.
Who's that Spider?
It's incy, wincy Spider.
(twice)

SONG FOR THE NUMBER FOUR

CHORUS

This song is about the number four,
Sing it, sing it, sing some more,
This song is about the number four,
Sing it, sing it, sing some more.

Verse

Four hooves has a cow,
Four hooves has a horse,
Four hooves has a cow,
Four hooves has a horse.

Four wheels has a car,
Four letters spell the word star,
Four wheels has a car,
Four letters spell the word star.

CHORUS

F-O-U-R, FOUR
F-O-U-R, FOUR
F-O-U-R, FOUR
F-O-U-R, FOUR

"SONG FOR THE MONTHS OF THE YEAR"

CHORUS:

There are twelve months in the year
Twelve months in the year
Twelve months in the year
Let's sing:
January, February, March, April, May,
June, July, August, September, October,
November, December.
Twelve months in the year.

Verse

The year begins in January,
February gives us **Mashramani**,
March and April **Phagwah** and Easter.
May-June rains, It's time to shelter.
July-August – Our schools' vacation.
September, we celebrate our education.
October, November, please remember
The two months before December.

MARCH OF NUMBERS

On we go marching along
Marching along, marching along
On we go marching, marching along we
go.

We would count from one to ten,
One to ten, one to ten,
We would count from one to ten,
Join us my friend.
One, two, three, four, five,
Six, seven, eight, nine, ten. (twice)

THE DAYS OF THE WEEK SONG

CHORUS:

There are seven days in the week
Seven days in the week
Seven days in the week
Seven days in the week.

Sunday, Monday, Tuesday, Wednesday,
Thursday, Friday and Saturday.
One, two, three, four, five, six, seven
Seven days in the week.

Verse:

Sunday for the Horse
Monday for the Cow
Tuesday for the Dog
He goes bow, wow, wow.
Wednesday for the Parrot
Thursday for the Hen
Friday for the Lion
Roaring in the Den,
But the spider said I want to play
So I will take Saturday.

We're thankful for each day of the
week.
We're thankful for each day of the
week.

One, two, three, four, five, six, seven,
Seven days in the week.

Sunday, Monday, Tuesday, Wednesday,
Thursday, Friday, Saturday.

THE CHILDREN OF GUYANA

Verse

Flowers of one garden
Beautiful and bright
We are special
Yellow, black or white.
Reaching for the star
We work and play
Happy and joyful
All through the day

CHORUS:

We are the children of Guyana
The children of the world
We are the children of Guyana
All the boys and girls. (repeat)

Verse

We are all different living in this land,
Learning together, we all are one
Beautiful, intelligent, precious too
We will join and sing for you.

CHORUS

We are the children of Guyana
The children of the world
We are the children of Guyana
All the boys and girls. (repeat)

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