

A perfect fusion of Thai Syllabus and Singapore Maths approach

TEACHER'S

Guide

Textbook Prathomsuksa 1

Based on the Basic Education Curriculum B.E. 2551 (Revised Edition B.E. 2560)

Chapter 1 Numbers 0 to 10

The big idea

- 1. Ask students about playgrounds.
 - Do you like to play at a playground?
 - What do you like best at a playground?
 - Usually are there many children at the playground?
- 2. Ask the students to look at the picture carefully. Ask them if they can tell the number of children and the number of balls shown in the picture.



Strand 1: Numbers and Algebra

Standard M.1.1 Numbers

Indicators:

M 1.1 Gr1/1 Tell the numbers of objects, show quantities of objects of given cardinal numbers. Read and write Hindu-Arabic and Thai numerals showing cardinal numbers not exceeding 100 and 0.

M 1.1 Gr1/2 Compare cardinal numbers not exceeding 100 and 0 by using comparison symbols: $= \neq > <$.

M 1.1 Gr1/3 Arrange sequence of cardinal numbers not exceeding 100 and 0 from 3 to 5 numbers.



Extra notes

Tell the students that zero (0) is very special. If there are zero things, there is nothing at all. If there are zero cups, this means there are no cups at all.

Lesson 1 Counting to 10

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Count 0 to 10.
- Read and write numbers to 10 in Hindu-Arabic and Thai numerals and in words.
- 3. Count back by 1s.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

Zero to ten, count back

Materials needed

Counters, numeral cards (0 to 10), word cards (0 to 10)

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

 Guide the students to count the items in each row. Ask them point at each of the items as they count aloud.

- 2. Tell them that the last number they count represents the total number of items in that set.
- 3. Guide them to trace the Hindu-Arabic and Thai numerals in the book.
- 4. Guide them to spell the numbers.
- 5. Repeat for a few times.
- 6. Ask the students to count their fingers loudly for a few times.
- 7. Also ask them to spell out the numbers too.





Fun at Mathel

Work in pairs.

- 1. Put some cubes on the table.
- 2. Get your partner to show the correct card that matches the number of cubes.
- 3. Switch roles and repeat.
- 4. The one who showed more correct cards wins.





Count. Write the numbers in Hindu-Arabic numerals and words. Write them in Thai numerals too.



Fun with Maths!

Materials required: Counters, word cards

Objective of the activity: Counting and matching numbers with words

For this activity, word cards can be replaced with numeral cards. Alternatively, the student can show the card instead of the counters first. Then, the second student will show the correct number of counters based on the card.

Try This!

Help the students to read and understand the instruction. Get some students to count the balls and others to verify their answers.

Further practices

Get the students to complete the practices on pages 1 to 3 in Go Get Maths Workbook P1.

- 1. Using fingers, ask the students to count on from zero to ten.
- 2. Then, also using fingers guide the students to count back from ten to zero for a few times.
- Guide the students to refer to Starting Point on page 2. Ask them to answer the question. Have a discussion to conclude the lesson.



TRY THIS!

1. Count back. Write the numbers.



Try This!

Help the students to read and understand the instruction. Get some students to count the books and others to verify their answers.

Encourage the participations of other students to answer the second question. Get everyone to count back in order to verify the answer.

Further practices

Get the students to complete the practices on page 4 in Go Get Maths Workbook P1.

Activity for Reinforcement

- 1. Write a few numbers in sequence on the board.
- 2. Invite a student to give 3 numbers that follow the sequence.
- 3. Ask for verification from the rest of the students.
- 4. Repeat a few times.



Lesson 2 Comparing and ordering numbers

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Compare numbers to 10.
- 2. Arrange numbers to 10 in order.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary Equal to, not equal to, more than, fewer than

Materials needed

2-color counters, spoons, forks

Starting point

Give the students some red and blue cubes. Ask them if the red cubes are more than the blue cubes. Ask them if they know what they will learn today.

Teaching ideas

- 1. Tell the students that numbers can be compared.
- Count the numbers of dogs and bones together with the students. Ask if the number of dogs and the number of bones the same.
- 3. Introduce the term *equal to* and symbol =.
- Count the numbers of cats and fish together with the students. Ask if the number of cats and the number of fish the same. Tell them that that is an unmatched cat.
- Introduce the terms *not equal to*, *more than* and *fewer than*, and symbol ≠.

Go Get Maths Teacher's Guide P1 | 6

Fun with Maths!

Materials required: Spoons, forks

Objective of the activity: Comparing numbers

For this activity, guide the students to use the terms correctly. Tell the students that they need to familiarize themselves with statements using these terms.

Try This!

Help the students to read and understand the instruction. Get some students to count the items. Then, get some to compare the items and others to verify their answers.

Further practices

Get the students to complete the practices on pages 5 and 6 in Go Get Maths Workbook P1.





There are fewer

Play in groups of three.

- 1. The first student shows some spoons.
- 2. The second student shows some forks.
- 3. The third student matches the spoons and forks, and compares them.
- 4. Switch roles and repeat.



TRY THIS!

1. Which two groups have equal number of things?





Activity for Reinforcement

- 1. Write 3 numbers on the board.
- Invite a student to compare them and identify the greatest and smallest numbers.
- 3. Get a student to arrange the numbers starting with the greatest number.
- Get another student to arrange the numbers starting with the smallest number.
- 5. Repeat a few times with other students.

Teaching ideas

- 1. Tell the students to count the red and blue cubes.
- Ask them to match them. Lead them to see that there are more red cubes than blue cubes.
- Introduce the terms *greater than* and *smaller than* and their symbols
 > and <.
- 4. Get the students to read the statements with these terms to familiarize.

Activity for Reinforcement

- 1. Write 2 different numbers on the board.
- 2. Invite a student to compare them and ask him or her to give a statement.
- 3. Repeat a few times with other students.

Teaching ideas

- 1. Count the roosters, ducks and turkeys with the students together.
- 2. Ask students to identify the animal with the greatest number and the animal with the smallest number.
- If they are not able to identify, ask them to match a turkey to a duck to a rooster. Ask them which type of animals has the highest unmatched animals. Assist the students to link it to the animal with the highest number. Ask them which type of animals is matched all. Assist the students to link it to the animal with the lowest number.
- 4. Get the students to arrange the numbers starting with the greatest number and then with the smallest number.

Go Get Maths Teacher's Guide P1 | 8

Try This!

Help the students to read and understand the instructions.

For question 1, get some students to count the items and write them down. Get another 2 students to compare the numbers. Help them to recall the symbols > and <.

For questions 2 and 3, get some students to identify the greatest and smallest numbers. Ask the rest to verify their answers.

For question 4, invite 4 students to answer it. Ask them how they get their answers. Get some students to verify the answers.

Further practices

Get the students to complete the practices on pages 7 to 10 in Go Get Maths Workbook P1.

TRY THIS
1. Count and compare.
φφφφφφ

 2. Which is the greatest? Cross. (a) 2 8 5 (b) 4 1 6
3. Which is the smallest? Cross.
(a) 7 3 9 (b) 2 5 0
 4. Arrange these numbers. (a) Starting with the greatest number 5 6 10 → 3 0 7 →
(b) Starting with the smallest number $10 5 9 \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$
Chapter 1 9



Extra notes

A **cardinal number** tells how many of something there are, such as one, two and three. It tells us about quantity. An **ordinal number** tells us the position of a

thing in a sequence or a list, such as first, second and third.

Lesson 3 Ordinal numbers

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Read and write ordinal numbers.
- 2. Use ordinal numbers to tell positions.
- 3. Tell a position in 2 ways.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary First to tenth, position, left, right

Materials needed

-

Starting point

Ask the students to analyze the picture. Ask them to describe the position of the kid in the row. Ask them if they know what they will learn today.

- Tell the students that an ordinal number is a number that tells the position of a thing in a sequence or a list.
- 2. Guide them to read the ordinal numbers. Inform the students that most ordinal numbers end in "th" except for:
 - one \Rightarrow first (1st)
 - two \Rightarrow second (2nd)
 - three \Rightarrow third (3rd)
- Encourage them to know the spellings of the first ten ordinal numbers.

- Ask students to raise their right hands and then their left hands. Ask them how they identify their left and right hands. Ensure they can differentiate them.
- Ask the students to analyze the diagram. Ask them where the left and right sides of the diagrams are.
- Guide them to name the animals from their right and then from their left.
- Assist them to tell the positions of the animals from the right and from the left.
- Guide the students to refer to Starting Point on page 10. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Appoint 2 students to name the people in the diagram from their left and right. Get 4 students to answer the questions. Then, get the rest to verify their answers.

Further practices

Get the students to complete the practices on pages 11 to 13 in Go Get Maths Workbook P1.





11 | Go Get Maths Teacher's Guide P1



Extra notes

Number bonds show how numbers join together, and how they break down into component parts. Each number bond has a pair of numbers (parts) that make a greater number (whole).

Lesson 4 Number bonds

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Tell numbers in part-part-whole relationship.
- 2. Make different number bonds for a number.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary Number bond, part, whole

Materials needed Counters, cups, marbles

Starting point

Ask the students to use some counters to represent the doughnuts and place the counters onto 2 groups. Ask them to draw on the board their groups. Ask them if they know what they will learn today.

Teaching ideas

- Using counters to represent the doughnuts, ask the students to show different ways to group the 6 counters.
- 2. For each way, draw the number bond diagram and introduce the terms *number bond*, *whole* and *part*.
- 3. Explain to the students that the parts are made of smaller numbers while the whole is made up of a greater number.
- Guide the students to refer to StartingPoint. Ask them to answer the question.Have a discussion to conclude the lesson.

Go Get Maths Teacher's Guide P1 | 12

Fun with Maths!

Materials required: Counters

Objective of the activity: Making number bonds

After all the number bonds of 9 are made, ask the students to arrange the number bonds systematically. Guide the students to notice the pattern.

Get the students to repeat with 10 counters. Ask them if the pattern of the number bonds of 10 similar to the pattern of the number bonds of 9.

Try This!

Encourage the students to use counters if they are not able to find the answers.

Thinking Corner!

Discuss this problem with the students using cups and marbles. Ask them to relate it to a suitable number bond. Repeat this activity with different number of marbles.

Further practices

Get the students to complete the practices on pages 14 and 15 in Go Get Maths Workbook P1.





Chapter 2 Addition within 10

The big idea

- 1. Ask students to analyze the picture.
- 2. Discuss the picture by asking these questions:
 - How many yellow fish are there?
 - How many blue fish are there?
 - How many fish are there altogether?
 - How many purple squids are there?
 - How many blue squids are there?
 - How many squids are there altogether?
- Ask the students how they find the total number of each type of animals.
 Did they count? Encourage them to think of other methods.

Strand 1: Numbers and Algebra

Standard M.1.1 Numbers

Indicators:

M 1.1 Gr1/4 Find the value of the unknowns in addition and subtraction number sentences of cardinal numbers not exceeding 100 and 0.

M 1.1 Gr1/5 Show mathematical methods of finding answers to addition and subtraction word problems of cardinal numbers not exceeding 100 and 0.

Lesson 1 Ways to add

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Understand what addition is.
- 2. Add by counting on.
- 3. Add with number bonds.
- 4. Understand the properties of addition.

Suggested teaching time

8 periods (8 x 50 minutes)

Vocabulary

Addition, plus, addition equation, count on, properties of addition, commutative property

Materials needed

2-color counters, addition cards (within 10)

Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

Teaching ideas

- Explain to the students that when we put 2 cupcakes and 1 cupcake together, we will get 3 cupcakes in total.
- Write '2 + 1 = 3' on the board and read the equation as 'two plus one equals three' while pointing to it.
- Explain that we read the symbol + as plus and it means to put things together. So, in 2 + 1 = 3, 2 things and 1 thing are placed together giving 3 things in total.





Activity for Reinforcement

Introduce some more examples to reinforce the students' understanding of addition. Here is an example.

- 1. Draw 4 apples and 3 oranges on the board.
- 2. Ask these questions:
 - How many apples are there?
 - How many oranges are there?
 - How many fruits are there altogether?
- 3. Then, write '4 + 3 = 7' on the board. Guide the students to read the equation.



Extra Notes

We can count on from the smaller number. Both methods give the same answer. However, counting on from the greater number is easier than counting on from a smaller number.

Teaching ideas

 Introduce the term *addition equation*. Write on the board a few examples of addition equations vertically and horizontally. Guide them to read the equations.

- Show the students 2 red counters and 1 blue counter. Guide them to count on. Count with them aloud.
 Tell them the last count is the total number of counters. Tell them there are 3 counters in total.
- Now, add with them using the pictures on the book. Show the students that to find the total number of eggs, count on from the greater number.
- Point to the 2 eggs and say aloud 2. Then count on 1 step from 2. At the end, say that *two plus one equals three*.
- Write the addition equation on the board and read it out. This is to reinforce their abstract understanding.
- 5. Repeat the same for the next example to reinforce the concept of counting on.

- Referring to the book, guide the students to count on 3 steps from 4. Tell them that the last count (7) represents the total number of books.
- Get 2 students to write the addition equation horizontally and vertically.

Start from 4. Count on 3 steps. 4, 5, 6, 7 4 + 3 = 7There are 7 books altogether. hinking corner! When we add by counting on, why should we count on from the greater number? TRY THIS! 1. How many ladybugs are there altogether? ----.... 3 3 + 3 = ladybugs altogether. There are 2. How many buttons are there altogether? 5 + 2 =buttons altogether. There are

Thinking Corner!

Help the students to read and understand the question. Based on the previous example, get a student to count on 4 steps from the smaller number which is 3. Ask them if the answer the same. Discuss with the students which method they prefer and the reasons.

Try This!

Ask for volunteers to solve these 2 problems. Ask them how they solve the problems. Get the rest to verify their answers.

Further practices

Get the students to complete the practices on pages 16 and 17 in Go Get Maths Workbook P1.

Activity for Reinforcement

The students need time to practice the 'counting on' strategy. Write a few addition questions on the board. Invite some students to solve them by counting on. Get the rest to verify the answers.



Activity for Reinforcement

The students need time to practice the 'number bond' strategy. Write a few addition questions on the board. Invite some students to draw the number bond diagrams. Get the rest to verify the answers.

- Help the students to recall what a number bond is. Write a number bond diagram for 7. Ask the students to give other examples of number bonds for 7.
- 2. Ask the students to analyze the picture of apples. Ask the students to form a number bond based on the picture.
- Draw the number bond of 2 + 3 = 5 on the board. Point to the number bond diagram and say *'two plus three equals to 5'*. Relate the 2 *parts* as the green apples and red apples, and the *whole* as the total number of apples.
- Repeat with the next example of oranges to reinforce the concept of addition using number bonds.



Try This!

Get volunteers to solve these problems. If they do not get the answers right, repeat the 'number bond' strategy with them again.

Fun with Maths!

Materials required: Addition cards (within 10), counters

Objective of the activity: Practicing addition The students can use the counters to add by counting on.

Further practices

Get the students to complete the practices on page 18 in Go Get Maths Workbook P1.









- Explain to the students that there are some rules when we add. These rules are also known as *properties*.
- Ask a student to explain the meaning of 0. Have another student to verify his/her answer.
- Ask the students to analyze the pictures of the 2 fishbowls. Get a volunteer to find the number of fish altogether.
- Ask the students to analyze the pictures of the 2 egg trays. Get a volunteer to find the number of eggs altogether.
- 5. Help them to realize that when we add a zero to a number, the answer is the same as that number.
- Ask the students to analyze the 2 groups of balloons. Find out if they notice any differences.
- 7. Get a volunteer to find the number of balloons in each group.
- Ask the students to analyze the 2 groups of sliced cakes. Find out if they notice any differences.
- 9. Get a volunteer to find the number of sliced cakes altogether.
- Help them to realize that the answers are the same regardless the order of addition.

Try This!

Invite 4 students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on pages 19 and 20 in Go Get Maths Workbook P1.

Lesson 2 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Apply the concept of addition to solve addition word problems.
- 2. Create addition word problems.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary Word problem

Materials needed 2-color counters

Starting point

Help the students to read and understand the instruction. Ask them if they know what they will learn today.

Teaching ideas

- Help the students to understand the questions. Guide them to analyze the picture. There are 2 types of plants. Ask them to find the number of each type of plant. Then, ask them the number of the plants altogether.
- Explain that here we use addition because 2 groups of plants are put together.
- Ask a student to write the addition equation to answer the question and another to verify the answer.
- 4. Repeat with next example.
- Always encourage the students to refer to the picture for more understanding of the question.



Extra Notes

Always use the pictures when helping the students to read and understand the questions. Visual mathematics aids in understanding.

21 | Go Get Maths Teacher's Guide P1





Extra Notes

At this stage, not all the students can create word problems based on pictures. They might not able to relate the picture to 'addition'. Stepby-step guidance is important.

Try This!

Help the students to read and understand the questions. Invite the students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on pages 21 and 22 in Go Get Maths Workbook P1.

- Tell the students that we can create addition word problems based on pictures.
- Ask the students to analyze the picture.
 Encourage them to talk about the picture.

- 3. Guide the students to analyze the picture by asking these questions:
 - How many trees are there?
 - How many apples are there on the first tree?
 - How many apples are there on the second tree?
 - How many apples are there altogether?
- Then, guide them to create the question. Tell them that they need to create the story or situation before posing the question.
- Finally, ask them to write the story and the question. Highlight words like 'altogether' and 'total' that are usually used in addition word problems.
- Guide the students to refer to Starting Point on page 21. Ask them to answer the question. Have a discussion to conclude the lesson.

Step 1: Analyzing the picture Mow many trees are there? A 2 trees Solution How many apples are there on each tree? $rac{}{\sim}$ On the first tree, there are 7 apples. ↔ On the second tree, there are 2 apples. Step 2: Creating a question Identify the objects and their quantities for the questions. Apples on the trees and their quantities So Write 2 sentences describing the quantities of the objects. A The first tree has 7 apples. A The second tree has 2 apples. Lastly, write a question asking the total number of the objects. ▲ How many apples are there altogether? The first tree has 7 apples. The second tree has 2 apples. How many apples are there altogether? TRY THIS! Create an addition word problem based on the picture below.

Try This!

Help the students to analyze the picture and to create the question.

Further practices

Get the students to complete the practices on pages 23 and 24 in Go Get Maths Workbook P1.

Activity for Reinforcement

Materials required: Counters Objective of the activity: Creating addition word problems

- 1. One student writes an addition word problem.
- 2. Another student finds the answer using counters.
- 3. Get 1 more student to make an addition word problem based on the equation.
- 4. Get another to verify the answer.
- 5. Ask them to change roles and repeat.



Chapter 3 Subtraction within 10

The big idea

- 1. Ask students to analyze the picture.
- 2. Discuss the picture by asking these questions:
 - How many bees are there altogether?
 - How many bees fly away?
 - How many bees are left?
- Ask the students how they find the number of bees left on the flowers. Did they count? Encourage them to think of other methods.

Strand 1: Numbers and Algebra

Standard M.1.1 Numbers

Indicators:

M 1.1 Gr1/4 Find the value of the unknowns in addition and subtraction number sentences of cardinal numbers not exceeding 100 and 0.

M 1.1 Gr1/5 Show mathematical methods of finding answers to addition and subtraction word problems of cardinal numbers not exceeding 100 and 0.

Lesson 1 Ways to subtract

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Understand what subtraction is.
- 2. Subtract by counting back.
- 3. Subtract by crossing out.
- 4. Subtract with number bonds.

Suggested teaching time

8 periods (8 x 50 minutes)

Vocabulary

Subtraction, minus, subtraction equation, count back

Materials needed

Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

- Explain to the students that when we eat 2 cupcakes from the 5 cupcakes, there will be 3 cupcakes left.
- Write '5 2 = 3' on the board and read the equation as 'five minus two equals three' while pointing to it.
- Explain that we read the symbol as minus and it means to take away things. So, in '5 – 2 = 3', 2 things are taken away from 5 things and 3 things are left.





Activity for Reinforcement

The students need time to practice the 'counting back' strategy. Write a few subtraction questions on the board. Invite some students to count back to get the answers. Get the rest to verify the answers.

Teaching ideas

4. Introduce the term *subtraction equation*. Write on the board a few examples of subtraction equations vertically and horizontally. Guide them to read the equations.

- 1. Tell the students that we can subtract by counting back.
- 2. Pointing at 5, count back 2 steps.
- 3. The last count (3) is the answer.
- 4. Write the subtraction equation 5 2 = 3 on the board and say *five minus two equals 3.*
- Repeat the same for the next example to reinforce the concept of counting back.

- Guide them to count back. If the students are not fluent with counting back, get them to count back together aloud from 10 for a few times using their fingers.
- 7. Explain that when we subtract 0 from a number, the answer is the same as that number.

Start from 6. Count back 5 steps. 2 3 4 1 6, 5, 4, 3, 2, 1 6 - 5 = 11 banana is not peeled. There are 8 cubes. There are no red cubes How many blue cubes are there? 1 2 3 4 5 6 7 8 Since there are no red cubes, we do not need to count back. 8 - 0 =There are blue cubes. TRY THIS! There are 7 flowers. How many flowers are blooming? 3 flowers are blooming. opter 3 2

Try This!

Invite 2 students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on pages 25 and 26 in Go Get Maths Workbook P1.



Activity for Reinforcement

The students need time to practice the 'cross out' strategy. Write a few subtraction questions on the board. Invite some students to draw the necessary pictures and cross them out to find the answers. Get the rest to verify the answers.

Teaching ideas

- 1. Inform the students that we can subtract by crossing out.
- Explain to the students that the 4 apples are crossed out because they were eaten. To find the answer, ask the students to count the apples that are not crossed or left.
- 3. Repeat with the next example to make the students understand better.

Try This!

Invite 2 students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on page 27 in Go Get Maths Workbook P1.

- 1. Inform the students that we can subtract using number bonds.
- Draw a number bond diagram on the board and get a student to explain it. This will help them recall what a number bond is.
- Use the example to explain that the answer to the subtraction is in one of the 2 parts of the number bond.
- 4. Repeat with the next example to make the students understand better.
- Guide the students to refer to Starting Point on page 25. Ask them to answer the question. Have a discussion to conclude the lesson.



Try This!

Invite 2 students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on page 28 in Go Get Maths Workbook P1.



Activity for Reinforcement

The students need time to practice the 'number bond' strategy. Write a few subtraction questions on the board. Invite some students to draw the number bonds to find the answers. Get the rest to verify the answers.



Extra Notes

Always use the pictures when helping the students to read and understand the questions. Visual mathematics aids in understanding.

Lesson 2 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Apply the concept of subtraction to solve subtraction word problems.
- 2. Create subtraction word problems.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary Subtraction word problems

Materials needed

2-color counters

Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

- Help the students to read and understand the question. Ask them to refer to the diagram.
- Explain that here we use subtraction because 3 loaves of bread were sold or taken away from the group.
- 3. Use the next example to ensure the students understand better.

Try This!

Help the students to read and understand the questions. Invite the students to solve the problems. Ask them to explain their answers.

Further practices

Get the students to complete the practices on pages 29 and 30 in Go Get Maths Workbook P1.

Teaching ideas

- Tell the students that we can create subtraction word problems based on pictures.
- 2. Ask the students to analyze the picture. Encourage them to talk about the picture.

TRY THIS!

1. There are 8 animals. 2 of them are beetles. How many of them are spiders?



2. Jack has 6 toy planes. He gives 4 toy planes to Anong. How many toy planes does Jack have left?





Creating word problems



Step 1: Analyzing the picture

- How many people are there?
 7 people
- Mow many boys and girls are there?
 - ☆ There are 3 boys.
 ☆ There are 4 girls.

Step 2: Creating a question

- Identify the objects and their quantities for the questions.
 A People, boys and girls, and their quantities
- Write 2 sentences describing the quantities of the objects.
 A There are 7 people.
 - Ճ There are 3 boys.
- Lastly, write a question asking the number of the other object. A How many girls are there?



There are 7 people. There are 3 boys. How many girls are there?



Create subtraction word problems based on the pictures below.



Activity for Reinforcement

Materials required: Counters

Objective of the activity: Creating subtraction word problems

- 1. Ask the students to work in pairs.
- 2. One student writes a subtraction word problem
- 3. Another student finds the answer using counters.
- 4. Get 1 more student to make a subtraction word problem based on the equation.
- 5. Get another to verify the answer.
- 6. Ask them to change roles and repeat.

Teaching ideas

- 3. Guide the students to analyze the picture by asking these questions:
 - How many people are there?
 - How many boys are there?
 - How many girls are there?
- Then, guide them to create the question. Tell them that they need to create the story or situation before posing the question.
- 5. Finally, ask them to write the story and the question.
- Guide the students to refer to Starting Point on page 30. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Help the students to analyze the pictures and to create the questions.

Further practices

Get the students to complete the practices on page 31 in Go Get Maths Workbook P1.

Go Get Maths Teacher's Guide P1 | 32

Lesson 3 Addition and subtraction

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Relate addition and subtraction using number bonds.
- 2. Write a fact family about addition and subtraction.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

Fact family, unknown, relationship

Materials needed

2-color counters



Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

Teaching ideas

- Use counters to represent the blue and red cans of paint. Ask a student to make an addition equation based on the counters. Write the equation on the board.
- Get the students to think of a different addition equation. Remind them of the commutative property of addition. Write the equation on the board.
- Get other students to think of 2 subtraction equations based on the counters. Write them on the board too.
- Ask them to analyze the 4 equations. What do they notice? Introduce them the term *fact family*.



Activity for Reinforcement

The students need more examples to clearly understand the concept of fact family. Here is an example you may use:

- 1. Draw 4 apples and 2 oranges on the board.
- 2. Ask for 2 addition equations and 2 subtraction equations based on the pictures.
- 3. Write all the 4 equations on the board and get the students to notice that these 4 equations use the same set of 3 numbers.
- 4. Help them to conclude that these 4 equations make up a fact family.

33 | Go Get Maths Teacher's Guide P1



- Tell students that the fact family is useful. If we know one of the equations, we can easily find the other 3 equations.
- 2. Use the example to explain further.
- Guide the students to refer to Starting Point on page 33. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 4 students to answer the questions. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 32 and 33 in Go Get Maths Workbook P1.

Chapter 4 Shapes and patterns

The big idea

- 1. Ask the students to analyze the picture.
- 2. Discuss the picture by asking these questions:
 - Are these items common to you?
 - Have you seen them before?
 - Do all of them have straight edges?
 - Do all of them have pointed corners?
 - Can you name the shapes of these items?



Strand 2: Measurement and Geometry

Standard M.2.2

Indicators:

M 2.2 Gr1/1 Distinguish triangles, quadrilaterals, circles and ellipses, cuboids, spheres cylinders and cones.


Extra Notes

2D shapes are read as 2-dimensional shapes or just simply 2D shapes. They are flat. They have height and width only.

3D shapes are read as 3-dimensional shapes or just simply 3D shapes. They are not flat. They have height, width and depth.

Lesson 1 Recognizing 2D shapes

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Identify and name 2D shapes.
- 2. Know the properties of 2D shapes.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

2D shape, quadrilateral, triangle, circle, oval, side, vertex

Materials needed

Cut-outs of quadrilaterals, triangles, circles and ovals, colored paper, pencils, scissors

Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

- 1. Explain to the students that 2D shapes are shapes that are flat.
- Tell the students that they are going to learn about quadrilaterals, triangles, circles and ovals. Use large cut-outs to show the shapes to the students.
- Ask the students to trace the outlines of each shape with their fingers. Then, ask them to draw the shapes in the air with their fingers while saying out loud the names a few times.
- 4. Get the students to give examples of the common things with the shapes.

Thinking Corner!

Show the cut-outs of an oval and a circle to the students. Ask them how these 2 shapes are different.

Try This!

Get 4 students to answer the questions. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 34 and 35 in Go Get Maths Workbook P1.





- For each shape, use the cut-outs to explain its properties such as the number of vertices and the number of sides.
- 2. Explain that vertices are where 2 sides meet.
- 3. Explain also that *vertices* is the plural form of vertex. Both refer to the same meaning.
- 4. Reiterate that 2D shapes have only flat faces.
- Guide the students to refer to Starting Point on page 36. Ask them to answer the questions. Have a discussion to conclude the lesson.

Activity for Reinforcement

Show the table below to the students to compare the properties of the 4 shapes.

	Quadrilaterals	Triangles	Ovals	Circles
Corner	4	3	0	0
Vertex	4	3	0	0

This will help to the students to understand clearly.

Fun with Maths! Materials required: Colored paper, pencils, scissors Funa Maths! Objective of the activity: Recognizing and Work in groups of five. drawing 2D shapes $\ensuremath{\mathbf{1.}}$ Draw shapes on colored paper and cut them out. 2. Make a picture like a house using the shapes. Be creative. Encourage the students to be creative. 3. Select a member to describe the picture and the shapes the picture is made from in front of the class. 4. The group with the best creativity and descriptions about the shapes wins. **Try This!** Get 3 students to answer the questions. Ask TRY THIS! the rest to verify the answers. 1. Which shape has 4 vertices? Cross. **Further practices** 2. Which shape has 3 sides? Cross. Get the students to complete the practices on page 36 in Go Get Maths Workbook P1. 3. Which shapes have no sides and vertices? Cross.

er 4 | 3



Lesson 2 Recognizing 3D shapes

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Identify and name 3D shapes.
- 2. Know the properties of 3D shapes.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

3D shape, cuboid, sphere, cylinder, cone, edge, flat face, curved face

Materials needed

Objects with shapes of cuboid, sphere, cylinder and cone, 2D cut-outs, bag

Starting point

Help the students to understand the question. Ask them if they know what they will learn today.

- 1. Explain to the students that 3D shapes are shapes that are not flat.
- Tell the students that they are going to learn about cuboids, spheres, cylinders and cones. Use large objects with those shapes to explain to the students.
- 3. Show them the cuboid. Ask the students to say the name out loud a few times.
- 4. Get a few students to give examples of objects with this shape.
- 5. Repeat with other shapes.

- Show them a circular cut-out and a ball. Invite a student to identify a 2D shape and a 3D shape. Get another to verify the answer and explain.
- 7. Discuss with the students the difference between a 2D shape and a 3D shape.



Try This!

Get 4 students to answer the questions. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 37 and 38 in Go Get Maths Workbook P1.





Activity for Reinforcement

Use a table to compare the properties of the 4 shapes.

	Cuboids	Spheres	Cylinders	Cones
Edge	12	0	2	1
Vertex	8	0	0	1
Curved face	0	1	1	1
Flat face	6	0	2	1

This will help the students to understand clearly.

- Show the students a 3D shape and explain its properties such as the number of edges, types of faces and number of vertices.
- Explain and show the difference between a flat face and a curved face. Encourage them to feel the faces for better understanding.
- 3. Ask them to feel the edges and vertices with their fingers.
- Count with them the number of edges, the number of vertices and the number of the different types of faces.
- Guide the students to refer to Starting Point on page 40. Ask them to answer the question. Have a discussion to conclude the lesson.



Thinking Corner!

Show a cuboid and a rectangular cut-out to the students. Ask them how these 2 shapes are different.

Try This!

Get 2 students to answer the questions. Ask the rest to verify the answers.

Fun with Maths!

Materials required: Different 3D shapes, bag

Objective of the activity: Recognizing the properties of 3D shapes, improving sensory skills

Encourage the students to use their sensory skills and imagination to figure out the shapes.

What is the difference between an edge of a 3D shape and a side of a 2D shape? Image: Comparison of the problem of the pr

- 3. Guess the shape without looking at it.
- 4. Switch roles and repeat.
- 5. Then, take turns to reveal your guess with an explanation.
- 6. Lastly, teacher reveals the answer.



Further practices

Get the students to complete the practices on pages 39 and 40 in Go Get Maths Workbook P1.



Lesson 3 Making patterns with shapes

Lesson objectives

By the end of the lesson, the students should be able to:

 Identify the next shapes in repeated patterns of 2 geometric figures or 2 other forms.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary Pattern, size, color, orientation

Materials needed 2D shapes, 3D shapes

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Draw a pattern of 2 different shapes on the board. They can be either 2D shapes or 3D shapes.
- Guide the students to analyze the pattern. Show them that every 2 subsequent shapes makes a group. These groups consist of the same shapes in the same order.
- Guide them to analyze the shapes in the groups. Ask them how the shapes differ such as the types of shapes, their sizes, colors and orientations.
- 4. Guide them to realize the next shape in each pattern.
- 5. Give more examples of patterns for better understanding.

Go Get Maths Teacher's Guide P1 | 44

- The students might not understand the concept of orientation. Orientation of a shape is the position of the shape, whether it is upright, inverted or turned.
- Show a few examples of patterns with a change in orientation of the same shape.
- Guide the students to refer to Starting Point on page 44. Ask them to answer the question. Have a discussion to conclude the lesson.

Fun with Maths!

Materials required: 2D shapes or 3D shapes **Objective of the activity:** Making and identifying patterns

Tell the students that they need to make at least 2 groups of similar shapes in order for their partner to identify the change and the next shape. Encourage the students to be creative.

Try This!

Get 2 students to answer the questions. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 41 to 43 in Go Get Maths Workbook P1.









Chapter 5 Numbers to 20

The big idea

- 1. Ask students about animals.
 - Can you name a few common animals?
 - Do you like horses?
 - How do horses move?
 - How many legs does a horse have?
- 2. Ask the students to look at the picture carefully. Ask them if they can tell the number of horses shown in the picture.

Strand 1: Numbers and Algebra

Standard M.1.1 Numbers

Indicators:

M 1.1 Gr1/1 Tell the numbers of objects, show quantities of objects of given cardinal numbers. Read and write Hindu-Arabic and Thai numerals showing cardinal numbers not exceeding 100 and 0.

M 1.1 Gr1/2 Compare cardinal numbers not exceeding 100 and 0 by using comparison symbols: $= \neq > <$.

M 1.1 Gr1/3 Arrange sequence of cardinal numbers not exceeding 100 and 0 from 3 to 5 numbers.

Lesson 1 Counting to 20

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Count to 20.
- Read and write numbers to 20 in Hindu-Arabic and Thai numerals and in words.
- 3. Tell the place value of each digit in numbers to 20.
- 4. Write numbers in expanded form.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

Eleven to twenty, digit, ones, tens, place value

Materials needed

Numeral cards (0 to 20), word cards (0 to 20)

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

 Guide the students to count the items in each row. Ask them point at each item as they count aloud.











- 2. Tell them that the last count represents the total of items in that set.
- 3. Guide them to trace the Thai and Hindu-Arabic numerals in the book.
- 4. Guide them to spell the numbers. Help them to analyze the differences in the spellings of 1 to 10 and 11 to 20.
- 5. Repeat for a few times.
- Draw 18 squares on the board. Get a student to count them. Then get another student to circle 10 squares and count the balance squares.
- 7. Ask the class which way is easier to count. Ask them for their reasons.

Fun with Maths!

20), word cards (11 to 20)

to words and vice-versa

spell out the words.

- Tell them that it will be easier to make 10 first and then count the balance.
- 9. Use the examples of ducks to explain further. Read to them that 10 and 3 makes 13.
- 10. Use the next example to make them understand better.
- 11. Tell the students that they can circle 10 items to make 10.

Materials required: Numeral cards (11 to

Encourage the students to read out and

Objective of the activity: Matching numbers



- 4. If it is correct, player 2 gets a point.
- 5. They switch roles and repeat for 3 rounds.
- 6. The player with more points wins.





TRY THIS!



Image: state state

Try This!

For question 1, get 3 students to answer it. For question 2, get a student to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 44 to 47 in Go Get Maths Workbook P1.

- 1. Get a student to write 0 to 9 and another to write 11 to 20 on the board.
- Ask the rest of the students what they notice about these 2 sets of numbers. Guide them to realize that there is only 1 digit in every number from 0 to 9, and 2 digits in every number from 11 to 20.
- 3. Write 14 big on the board. Ask the students the number of digits 14 has.
- Tell them that each digit in 14 represent different values. Place value is the value of each digit in a number.
- 5. Explain tens and ones as the values of the positions in the number. Draw the place value chart for 14. Explain the place value of each digit in 14.
- 6. Use other numbers to explain more.
- Guide the students to refer to Starting Point on page 47. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on page 48 in Go Get Maths Workbook P1.





Activity for Reinforcement

Materials required: Counters

Objective of the activity: Comparing numbers

- 1. Get the students to work in pairs.
- 2. Give each pair of students 2 sets of counters.
- 3. Ask them to count and then match the 2 sets of counters.
- 4. Ask them which set has more counters and which has fewer counters.
- 5. Lastly, ask them to make statements to compare them.

Lesson 2 Comparing and ordering numbers

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Compare numbers to 20.
- 2. Arrange numbers to 20 in order.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

Greatest, smallest

Materials needed

Counters, numeral cards (0 to 20), word cards (0 to 20)

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

- Help the students to recall the meaning of =, > and <. Write 2 numbers (0 to 10) on the board and invite a student to compare the numbers using the symbols. Repeat a few times with other students.
- Use the example to guide the students to compare. Use the matching method to compare the objects.

- 3. Tell the students that place value charts can be used to compare numbers.
- 4. Draw the place value charts for 15 and 11 on top of each other.
- 5. Ask the students to compare the tens and ones of both numbers.
- Guide them on how to compare the numbers by comparing their ones since their tens are the same.
- 7. Write a few pairs of numbers on the board. Get some students to draw the place value charts and compare the numbers. Get the rest to verify the answers.



Get 9 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 49 to 51 in Go Get Maths Workbook P1.



Activity for Reinforcement

Materials required: Numeral cards (11 to 20) Objective of the activity: Comparing numbers

- 1. Get the students to work in pairs.
- 2. Give each pair of students some numeral cards.
- 3. Ask each of them to randomly pick a card.
- 4. Then, ask them to compare the numbers by making statements and using symbols.



Activity for Reinforcement

Write a few sets of 3 numbers on the board. Get some students to arrange the numbers from the greatest and also from the smallest. Ask the rest of the students to verify the answers.

- Tell the students that comparing 3 numbers is similar to comparing 2 numbers by using the place value charts.
- 2. Write 3 numbers on the board. Invite 3 students to draw the place value charts for the 3 numbers.
- Guide them on how to compare by comparing the tens first. Then, compare the ones.
- Guide them to find the greatest number. Tell them that the greatest number is greater than the other 2 numbers.
- Guide them to find the smallest number. Tell them that the smallest number is smaller than the other 2 numbers.
- Guide them to arrange the numbers from the smallest to the greatest and also from the greatest to the smallest.
- Advise the students to be cautious when ordering numbers, not to order wrongly.

- Tell the students that comparing 4 numbers is similar to comparing 3 numbers by using the place value charts.
- 2. Write 4 numbers on the board. Invite 4 students to draw the place value charts for the 4 numbers.
- Guide them on how to compare by comparing the tens first. Then, compare the ones.
- Guide them to find the greatest number. Tell them that the greatest number is greater than the other 3 numbers.
- Guide them to find the smallest number. Tell them that the smallest number is smaller than the other 3 numbers.
- Guide them to arrange the numbers from the smallest to the greatest and also from the greatest to the smallest.
- Advise the students to be cautious when ordering numbers, not to order wrongly.
- Guide the students to refer to Starting Point on page 52. Ask them to answer the questions. Have a discussion to conclude the lesson.



Activity for Reinforcement

Write a few sets of 4 numbers on the board. Get some students to arrange the numbers from the greatest and also from the smallest. Ask the rest of the students to verify the answers.

	(14) (16) (11) (17)
17 is 11 is 16 is	the greatest number. the smallest number. greater than 14.
	17, 16, 14, 11 greatest smallest
TR	Y THIS!
1.	Compare these numbers.
	(a) 18 12 14 (b) 15 11 16 19
	The greatest number is The greatest number is
	The smallest number is The smallest number is
2.	Arrange these numbers.
	(a) 17 19 13
	Starting with the smallest number:
	Starting with the greatest number:
	(b) 14 11 18 20
	Starting with the smallest number:
	Starting with the greatest number:

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 51 to 53 in Go Get Maths Workbook P1.



Chapter 6 Addition and subtraction within 20

The big idea

- 1. Help the students to recall how to add and subtract. Here is an example:
 - a. Write 4 + 2 = 0 on the board.
 - b. Invite a volunteer to give the answer and explain how he gets the answer.
 - c. Get another student to verify. Repeat with other addition and subtraction equations.
- 2. Ask the students to look at the picture carefully. Ask them these questions to start a discussion:
 - How many apples are there on the first tree?
 - How many apples are there on the second tree?
 - How do you find the total number of apples on both trees? How do you add them?
 - How many orange flowers are there?
 - How many green flowers are there?
 - How many flowers are there altogether? How do you add them?

Strand 1: Numbers and Algebra

Standard M.1.1 Numbers

Indicators:

M 1.1 Gr1/4 Find the value of the unknowns in addition and subtraction number sentences of cardinal numbers not exceeding 100 and 0.

M 1.1 Gr1/5 Show mathematical methods of finding answers to addition and subtraction word problems of cardinal numbers not exceeding 100 and 0.





Activity for Reinforcement

Materials required: 2-color counters

Objective of the activity: Adding by counting on

- 1. Show 8 red counters and 5 blue counters.
- 2. Guide them to count the red counters.
- 3. Then, guide them to count on 5 steps for the blue counters.
- 4. Ask them how many counters are there altogether.
- 5. Repeat with other numbers of counters.

Lesson 1 Ways to add

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Add by counting on.
- 2. Add by making 10.
- 3. Add by adding ones.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

-

Materials needed

2-color counters, ten-egg cartons, ten-frames

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

- 1. Tell the students that they can use the *counting on* strategy to add within 20.
- Ask them to count the number of the pink butterflies. Then, count on 4 steps with them aloud on the blue butterflies. Tell them that there are 11 butterflies altogether.
- Guide them to count on using the number ladder. Count on with them while pointing to each number. Help them to relate the butterflies to the number ladder.
- 4. Repeat with other similar additions.

- 5. Advise the students to count on from greater numbers.
- 6. Remind them that we can write addition equations vertically too.
- Write a few addition equations. Get some students to draw the number ladders and count to get the answers. Get the rest to verify the answers.

Thinking Corner!

- 1. Ask the students why we should count on from the greater number.
- 2. Use this as a discussion for the students' better understanding:
 - a. Write '2 + 15 =' on the board.
 - Get a student to count on aloud from 2 and another student to count on aloud from 15.
 - c. Ask the class which is easier and the reasons for it.
 - d. Make a conclusion.

Try This!

Get 7 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 54 and 55 in Go Get Maths Workbook P1.







Extra Notes

Take note that the *making 10* strategy applies to addition of 2 single-digit numbers only.

Teaching ideas

- 1. Tell the students that we can add by making 10.
- Use 2 ten-frames. Place 6 blue counters in 1 frame and 5 red counters in the other.



 Then, move 4 red counters to the first frame to make it 10. Guide them to realize that 1 red counter is left in the second frame.



- 4. Tell them that '6 + 5' is the same as '10 + 1'. There are 11 counters altogether.
- 5. Use the pictures of burger to repeat to ensure they understand.
- Guide them to use the number bonds to make 10 too. Tell them 4 and 1 makes 5, and 6 and 4 makes 10. So, eventually 10 and 1 makes 11.

- Repeat the addition using the *making* 10 strategy by using other examples.
- 8. Remind the students to always use the number bond of the smaller number.

Fun with Maths!

Materials required: Ten-egg cartons, green and red cubes

Objective of the activity: Adding using *making 10* strategy

Guide the students to fill the egg carton with cubes that represent the greater number. Let them try with the cubes that represent the smaller number and ask them to compare and conclude.



6. The group with the most points wins.

Extra Notes

Remind students that the properties of addition learnt earlier are applicable on greater numbers too.

Commutative property: 12 + 6 = 18 6 + 12 = 18 Adding a zero: 17 + 0 = 17, 0 + 20 = 20



Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 56 and 57 in Go Get Maths Workbook P1.

- Show the students 12 red counters and 3 blue counters. Ask them how they will find the total number of counters. Ask them these questions to start the discussion:
 - Can you add by counting on?
 - Can you add by making 10?
 - Is there any other strategy?

Emphasize that this is an addition involving a 2-digit number and a 1-digit number.

- 2. Help the students to recall that we can regroup a 2-digit number into its tens and ones. So, 10 and 2 makes 12.
- Using the *adding ones* strategy, guide the students to add the ones, which is 2 and 3. Therefore, 12 + 3 = 15.
- 4. Use the number bond of 12 to explain further. 10 and 2 makes 12. 2 and 3 makes 5. So, 10 and 5 makes 15.





Extra Notes

Take note that the *adding ones* strategy applies to addition of a 2-digit number and a 1-digit number.





- Use other examples of addition of 2digit numbers and 1-digit numbers for the students to understand better.
- Guide the students to refer to Starting Point on page 58. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 58 and 59 in Go Get Maths Workbook P1.

Lesson 2 Ways to subtract

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Subtract by counting back.
- 2. Subtract by subtracting ones.
- 3. Subtract by subtracting from 10.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed

Counters

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

- Help the students to recall how count back by counting back together aloud from 20.
- Draw 14 apples on the board. Tell the students that they are going to subtract 2 from 14. Write '14 2 =' on the board. Tell them that since they are going to subtract 2 from 14, they need to cross out 2 apples. Guide them to count back 2 steps. Tell them that the last count is the answer.
- Repeat with the example '12 1 = ' on the book. Use the number ladder to count back too.
- Use the following example '15 6 = ' to repeat.
- 65 | Go Get Maths Teacher's Guide P1





Extra Notes

Remind the students when 0 is subtracted from a number, the number remains.

18 - 0 = 18 13 - 0 = 13 20 - 0 = 20

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 60 and 61 in Go Get Maths Workbook P1.

- 1. Write '12 1 =' on the board.
- Help the students to recall that a 2digit number can be regrouped into its tens and ones. 12 is made up of 1 ten and 2 ones.
- Then, guide the students to subtract 1 from the ones which will give 1. So, 12 -1 = 11.
- Repeat the subtraction by subtracting 1 from the tens. Ask them if they will get the answer. Discuss with them which method is easier – subtracting from ones or subtracting from tens.

- 5. Draw the number bond diagram to link to the subtracting the ones. Emphasize that we use the number bond for the greater number.
- 6. Repeat with other examples such as
 - 17 5
 - 19 6

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 62 and 63 in Go Get Maths Workbook P1.





- Write '17 9 =' on the board. Ask the students if they can solve the question by using the *subtracting ones* strategy. Explain that this method is not workable as the ones in 17 is smaller than 9. We cannot subtract 9 from 7.
- 2. Tell the students that for these types of subtraction, we need to subtract using the *subtracting from 10* strategy.
- 3. Guide the students that 11 can be grouped into 1 ten and 1 one. Ask the students to subtract 4 from 1 ten, which will give 6. Then, ask the students to add 6 and 1, which will give 7. So, the answer is 7.
- 4. Draw the number bond diagram to link to the subtracting from 10.
- 5. Repeat with other examples such as
 - 12 5
 - 17 9
- Guide the students to refer to Starting Point on page 65. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Thinking Corner!

Guide the students to understand the question in this section. Invite one or two volunteers to answer it and give his/her explanation.

Explain that we subtract using the *subtracting from ones* strategy when the ones in the 2-digit number is greater than the 1-digit number. We use the *subtracting from 10* strategy when the ones in the 2-digit number is smaller than the 1-digit number.



Further practices

Get the students to complete the practices on pages 64 and 65 in Go Get Maths Workbook P1.





Extra Notes

Bar models are a versatile tool that can be used to visualize many math concepts, such as fractions, ratios and percentages. By using suitable bar models, the students can determine the knowns and unknowns in a given situation.

Lesson 3 Finding the unknowns in addition and subtraction

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Find the unknowns in addition.
- 2. Find the unknowns in subtraction.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary Unknown

Materials needed Counters

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

- Tell the students that they are going to learn to use the bar models.
- 2. Show them 6 red counters and 4 blue counters. Ask them to add up the counters.
- Guide them to draw a bar model based on the counters. Tell them that the length of the rectangles in the bar model are proportional to the number of counters.
- Explain what each rectangle represents and what the whole both rectangles represent.
- Repeat with some examples to enable the students to draw the bar models correctly and understand what the rectangles represent.

- 6. Tell the students that they will learn to use the bar models to find the unknowns in addition.
- Write '8 + ? = 14' on the board. Ask a student to draw the bar model and explain what each rectangle represents.
- Guide the students to count on from 8 to reach 14 or count back from 14 to reach 8 to get the answer.
- Repeat with the following questions to ensure the students understand fully on how to use the bar models to find the unknowns
 - 6 + ? = 17
 - 12 + ? = 19

Thinking Corner!

Help the students to relate the bar model to the number bond. The rectangles in the bar model are the parts in the number bond diagram.




- 10. Write '? + 9 = 18' on the board. Ask a student to draw the bar model and explain what each rectangle represents.
- 11. Guide the students to count on from 9 to reach 18 or count back from 18 to reach 9 to get the answer.
- 12. Repeat with the following questions to ensure the students understand fully on how to use the bar models to find the unknowns
 - ? + 3 = 11
 - ? + 12 = 20

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on page 66 in Go Get Maths Workbook P1.

- Tell the students that they are going to use the bar models to find the unknowns in subtraction.
- Show them 6 red counters and 2 blue counters. Ask them to subtract 2 from 8 using the counters.
- Guide them to draw a bar model based on the counters. Tell them that the length of the rectangles in the bar model are proportional to the number of counters.
- Explain what each rectangle represents and what the whole both rectangles represent.
- Repeat with some examples to enable the students to draw the bar models correctly and understand what the rectangles represent.



Thinking Corner!

The students need to understand clearly what each rectangle in the bar model represents. They should be able to give the following equations:

$$4 + 6 = 10$$

 $6 + 4 = 10$
 $10 - 4 = 6$

10 - 6 = 4



- Write '13 ? =8' on the board. Ask a student to draw the bar model and explain what each rectangle represents.
- Guide the students to count on from 8 to reach 13 or count back from 13 to reach 8 to get the answer.
- Repeat with the following questions to ensure the students understand fully on how to use the bar models to find the unknowns
 - 16 ? = 10
 - 15 ? = 3
- Write '? 4 = 13' on the board. Ask a student to draw the bar model and explain what each rectangle represents.
- 10. Guide the students to count on 4 steps from 13 to get the answer.
- Repeat with the following questions to ensure the students understand fully on how to use the bar models to find the unknowns
 - ? 11 = 6
 - ? 4 = 13
- 12. Guide the students to refer to **Starting Point** on page 70. Ask them to answer the question. Have a discussion to conclude the lesson.

Thinking Corner!

Tell the students that in addition and subtraction, the number bond diagrams can be linked to bar models closely.

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on page 67 in Go Get Maths Workbook P1.





Extra Notes

Always ask the students to refer to the picture for better understanding of the number story and question. Guide them to interpret the picture by asking these questions:

- What is the question asking us to find?
- Is it an addition or subtraction question?
- What is the equation?

Lesson 4 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

- Apply the concept of addition and subtraction to solve word problems involving addition and subtraction.
- 2. Create word problems involving addition and subtraction.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed

Paper, color pencils, numeral card (1 to 20)

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Guide the students to read and understand the number story and the question.
- 2. Ask them if this involves addition or subtraction. Ask for their reasons.
- Guide them to draw the bar model. Guide them to realize that 12 and 4 are the parts, which should be represented by the 2 rectangles.
- 4. Tell them that in order to get the whole, they should count on 4 steps from 12.

- 5. Guide the students to read and understand the number story and the question in the next example.
- 6. Ask them if this involves addition or subtraction. Ask for their reasons.
- Guide them to draw the bar model. Guide them to realize that 14 and 5 are the parts, which should be represented by the 2 rectangles.
- Tell them that in order to get the whole, they should count on 5 steps from 14.

Teaching ideas

- Guide the students to read and understand the number story and the question.
- 2. Ask them if this involves addition or subtraction. Ask for their reasons.
- Guide them to draw the bar model. Guide them to realize that 8 is one of the parts, which is one of the rectangles, and 13 is the whole.
- Tell them that in order to get the other part, they should count back 8 steps from 13.





- Guide the students to read and understand the number story and the question in the next example.
- 6. Ask them if this involves addition or subtraction. Ask for their reasons.
- Guide them to draw the bar model. Guide them to realize that 9 is one of the parts, which is one of the rectangles, and 17 is the whole.
- Tell them that in order to get the other part, they should count back 9 steps from 17.

Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 68 to 72 in Go Get Maths Workbook P1.

- 2. Mother buys 16 cupcakes. She gives 8 cupcakes to Grandmother. How many cupcakes does Mother have left now?
- **3.** There are some people in the hall. 6 people are sitting and 9 people are standing. How many people are there altogether?





A He is giving the boy some pencils.

How many pencils is the man giving the boy? A pencils

Step 2: Creating a question

- Identify the objects and their quantities for the questions.
 Pencils and their quantities
- Write 2 sentences describing the quantities of the objects. The boy has 9 pencils.
 - A The man gives another 4 pencils to the boy.
- Lastly, write a question asking the total number of the objects. A How many pencils does the boy have altogether?



The boy has 9 pencils. The man gives the boy another 4 pencils. How many pencils does the boy have altogether?

Activity for Reinforcement

Materials required: Paper, colored pencils, numeral cards (1 to 9)

Objective of the activity: Creating addition word problems

- 1. Ask the students to work in pairs.
- 2. Ask each of them to select a numeral card and use the cards to create an addition equation.
- 3. Get them to create and draw the story of the addition equation. Give them some time to draw.
- 4. Then, select a few groups to present their stories based on their drawings.

Teaching ideas

- 1. Guide the students to analyze the picture and the question.
- 2. Guide them to create a word problem involving addition step by step.

- 1. Guide the students to analyze the picture and the question.
- 2. Guide them to create a word problem involving subtraction step by step.
- Guide the students to refer to Starting Point on page 76. Ask them to answer the question. Have a discussion to conclude the lesson.



Activity for Reinforcement

Materials required: Paper, colored pencils

Objective of the activity: Creating subtraction word problems

- 1. Ask the students to work in pairs.
- 2. Write a subtraction equation on the board.
- 3. Get them to create and draw a story based on the subtraction equation. Give them some time to draw.
- 4. Then, select a few groups to present their stories based on their drawings.

TRY THIS!

1. Create an addition word problem based on the picture below.



2. Create a subtraction word problem based on the picture below.



Try This!

Get some students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 73 to 75 in Go Get Maths Workbook P1.

To find out if the students have mastered the first half of the year's content, ask them to complete the **Revision 1** on pages 76 to 82 in Go Get Maths Workbook P1.

Chapter 7 Length

The big idea

- 1. Ask the students if they have been to a beach. Ask them what they see there.
- 2. Use the picture to refocus the students.
- 3. Ask the students to look at the picture carefully. Ask them these questions to start a discussion:
 - a. How many ships are there?
 - b. What can you say about the ships? How do they differ?
 - c. How many coconut trees are there?
 - d. What can you say about the coconut trees? How do the trees differ?



Strand 2: Measurement and Geometry

Standard M.2.1

Indicators:

M 2.1 Gr1/1 Measure and compare length in centimeters and meters.



Extra notes

Comparative adjectives are words used to describe a noun by comparing it to another noun. Some examples are taller, shorter and smaller.

Superlative adjectives are words used to describe a noun when comparing it to two or more nouns to the highest or lowest degree. Some examples are tallest, shortest and smallest.

Lesson 1 Comparing objects

Lesson objectives

By the end of the lesson, the students should be able to:

1. Compare lengths and heights of things using the correct terms.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

Height, length, tall, taller than, tallest, short, shorter than, shortest, long, longer than, longest

Materials needed

Pencils, any items found in a pencil case

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas

- Ask the students to analyze the 3 buildings. Besides the colors, get them to talk about the buildings.
- 2. Introduce the words tall, taller than, tallest, short, shorter than and shortest.
- 3. Move the pointer vertically when teaching them these terms using the buildings.

Thinking Corner!

Guide the students to know the degree of adjectives such as tall, short and long.

> Tall, tall, tallest Short, shorter, shortest Long, longer, longest

- Ask the students to analyze the 3 items. Get them to talk about the lengths of the items.
- Introduce the words long, longer than, longest, short, shorter than and shortest.
- Move the pointer horizontally when teaching them these terms using the items.
- 4. Bring their attention that all the 3 items are placed at the same starting line.
- 5. Inform them that the word short can be use to describe height and length.

Thinking Corner!

- Show the students 3 pencils of different lengths without lining them up at a starting line. Ask them if they can tell which is the longest and which is the shortest. Ask them for their reasons.
- Then, line up the pencils at a starting line. Now, ask them to compare again. Ask them which method is easier to compare. Discuss it.
- Guide the students to refer to Starting Point on page 84. Ask them to answer the question. Have a discussion to conclude the lesson.



Extra notes

Length denotes how long a shape is and height denotes how tall it is. Length is the horizontal measurement in a plane whereas height is the vertical measurement.





Fun with Maths!

Materials required: Any items found in a pencil case

Objective of the activity: Comparing heights or lengths

The students should use the terms taught previously correctly. Take note on how they construct their sentences. They also should show that comparison is done at the same starting point.

Try This!

Get 6 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 83 to 86 in Go Get Maths Workbook P1.

Lesson 2 Measuring length

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Measure and compare lengths and heights of things using common objects.
- 2. Measure and compare lengths and heights of things in m and cm.

Suggested teaching time

6 periods (6 x 50 minutes)

Vocabulary Unit, meter, centimeter, width

Materials needed

Paper clips, ice cream sticks, books, pencils, crayons, table, desk, chair, board, window, erasers, meter rule, ruler

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas

- Tell the students that we can measure the length of an object using other objects such as paper clips and ice cream sticks.
- 2. Show the students how to measure the length of a book with paper clips. Count the number of paper clips together with the students. Tell them that the length of the book is as long as the total number of paper clips used. Explain that here we use a paper clip as 1 unit of length.
- 3. Repeat with the examples on the book.



Activity for Reinforcement

Materials required: Pencil, paper clips Objective of the activity: Measuring length using non-standard units

- 1. Ask the students get a pencil.
- 2. Then, ask them to measure the length of the pencil with paper clips.
- 3. Advise them to put the paper clips end-to-end with no gaps between them.
- 4. Ask them to make a statement about the length of their pencil.
- Ask them if they can use a mixture of objects such as paper clips and ice cream sticks to measure the length of a pencil. Discuss.



88 | Mathematics Prathomsuksa 1

Activity for Reinforcement

Materials required: Chair, ice cream sticks

Objective of the activity: Measuring length using non-standard units

- 1. Ask the students to measure the height of their chair with ice cream sticks.
- 2. Tell them that there should be no gap between the ice cream sticks while measuring.
- 3. Ask them to think of a way to measure and try it out.
- 4. Lastly, discuss the best method to measure the height of the chair using ice cream sticks.
- 5. Ask them to make a statement about the height of the chair.

Teaching ideas

- 4. Show the students how to measure the height of a table with ice cream sticks. Count the number of ice cream sticks together with the students. Tell them that the length of the table is as long as the total number of ice cream sticks used. Tell the students that here we use 1 ice cream stick as 1 unit of length.
- 5. Repeat with the examples on the book.

Fun with Maths!

Materials required: Any objects, paper clips Objective of the activity: Estimating and measuring length with non-standard units Estimating work is important towards an accurate measuring skill.

- Ask the students besides paper clips and ice cream sticks, what other objects that they can use to measure length. Ask them to think about our body parts.
- Introduce the terms hand span, foot and cubit. Demonstrate how to use our body parts to measure length. Get the students to try measuring with their body parts too.

Fun with Maths!

Materials required: Desk, blackboard, window

Objective of the activity: Measuring length with non-standard units (body parts) After measuring the length, start a discussion with the following questions:

- Are your answers the same as your friends'?
- If no, is it because of the objects (desk, blackboard, window) or the body parts?
- Does everyone have the same length of his hand span, foot and cubit?
- Is this method of measuring length using body parts a good one? Why?

We can also use our body parts to measure length.



This cupboard is as tall as 4 hand spans. It is 4 feet wide.

Fun.... Maths!

Work in pairs.

- 1. Use your body parts to measure the length of the objects listed in the table below.
- 2. Fill up the table.

Object	The second	-
Your desk		
The blackboard		
The window		





Try This!

Get 5 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 87 to 89 in Go Get Maths Workbook P1.

- Tell the students that when using objects to measure length, we need to make sure the objects are similar. For example, if we use paper clips to measure length, the paper clips should be of the same size. We cannot have different sized-paper clips or the answers will vary.
- Introduce to the students the term meter. Show them a meter rule. Tell them that it is 1 m long. Explain that meter is a unit of length and it is a standard.
- 3. Guide how to read the term.



Activity for Reinforcement

The students need to have an idea how long is 1 m. Ask them to compare the length of their open arms with a meter rule. Which is longer? How much is the difference?



The length of the board is 2 m. The height of the board is 1 m.



Height is the vertical measurement whereas length is the horizontal measurement.

Fun with Mathel

Work in groups of 4.

- 1. Get a meter rule or a 1-m string.
- 2. Guess the measurements of the objects in the table below.
- 3. Then, measure them.

Object	Your guess	It is about
The height of your desk		
The length of your teacher's table		
The height of the door		
The length of your arms stretched wide		
The height of your chair		

92 | Mathematics Prathomsuksa 1

Teaching ideas

 Demonstrate how to measure the length and height of the board. Guide them to make statements.

Fun with Maths!

Materials required: Meter rule, desk, table, door, chair

Objective of the activity: Estimating and measuring lengths with meter rule After measuring the lengths, start a discussion with the following questions:

- Are your answers the same as your friends'?
- Can you explain the reason?
- Is measuring lengths in m more reliable then measuring lengths using objects such as paper clips and ice cream sticks?

- Show the students the length of 1 cm on a ruler. Explain that centimeter is another unit of length.
- Show them a meter rule and a short ruler. Show them how long are 1 m and 1 cm.
- Ask a volunteer to explain which unit he will use to measure the length of a pencil and the length of his classroom.
- Conclude that we use m to measure long objects and cm to measure short object.
- 5. Demonstrate how to measure the length of a pencil with a ruler. Make sure one end of the pencil is placed at the 0 mark on the ruler and reading is take at the other end of the pencil.





Activity for Reinforcement

The students need to have an idea how long is 1 cm. Ask them to compare the width of their finger nail with 1 cm. Which is longer? How much is the difference?



The comb is 11 cm long. The pen drive is 5 cm long.

Fun with Mathel

Work in groups of 4.

- 1. Get a ruler.
- 2. Guess the measurements of the objects in the table below.
- 3. Then, measure them with the ruler.

Object	Your guess	It is about
The length of your pencil		
The length of this book		
The length of your eraser		

Thinking corner!



How do you measure the length around your head or your wrist? Can you use a ruler to do so? What tool should you use?

94 | Mathematics Prathomsuksa 1

Teaching ideas

- 6. Ask the students to measure the length of some common objects around them in cm and read out the measurement.
- Guide the students to refer to Starting Point on page 87. Ask them to answer the question. Have a discussion to conclude the lesson.

Fun with Maths!

Materials required: Ruler, pencil, book, eraser

Objective of the activity: Estimating and measuring length with ruler The students should be able to measure length in cm. Estimation skill is important too.

Thinking Corner!

Guide the students to read and understand the question. Lead them into a discussion by asking them these questions:

- Can you measure the length around your head using a ruler? Why?
- What tools should you use?
- Can you use a string and a ruler to do so? How?

Try This!

Get 6 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 90 to 92 in Go Get Maths Workbook P1.

TRY THIS!
1. The plant and the car are measured with a meter rule. Fill in the blanks.
(a) The plant is m tall. (b) The height of the plant is m.
(c) The length of the car is m. (d) The car is m long. 2. Fill in the blanks.
Spanner Screwdriver
իարադադադադադադադադադադադադադադադադադադա
 (a) The length of the spanner is cm. (b) The screwdriver is cm long.



Activity for Reinforcement

1. Draw 2 bars on the board and indicate their lengths as 10 m and 7 m respectively.



- 2. Tell them the difference in length between the 2 bars is 3 m. Ask them to how to find the difference in length. Guide them to construct statements comparing their lengths while pointing to the bars.
 - The blue bar is 3 m longer than the green bar.
 - The green bar is 3 m shorter than the blue bar.

Lesson 3 Comparing and ordering lengths

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Compare and order lengths in m.
- 2. Compare and order lengths in cm.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

-

Materials needed

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- 1. Guide the students to compare the heights of the 2 giraffes.
- Tell them that they need to find the difference in height between the giraffes.
- Guide them to make statements regarding the difference in height between the giraffes. Remind them to use the comparative adjectives.

- Guide the students to compare the lengths of the vehicles by asking them these questions:
 - Are all the units the same?
 - Which is longer, the taxi or the motorcycle? By how much?
 - Which is longer, the motorcycle or the bus? By how much?
 - Which is the longest?
 - Which is the shortest?
- 5. Guide the students to arrange the vehicles. Tell them that we can arrange them starting with the shortest or the longest. Always fill in the shortest and the longest first and then only fill in the last one in between them.



Activity for Reinforcement

1. Draw 3 bars on the board and indicate their heights as 8 m, 10 m and 4 m respectively.



- 2. Guide them to compare the heights of the bars by asking them these questions:
 - Are all the units the same?
 - Which is longer, the green or the yellow bar? By how much?
 - Which is longer, the yellow or the blue bar? By how much?
 - Which is longer, the green or the blue bar? By how much?
 - Which is the longest? Which is the shortest?
- 3. Then, guide them to arrange the bars starting from the shortest and also from the longest.

2			*******	Strav
				Fork
_				
C		4	Spoon	
0 cm 1 2	3 4 5 6 7	8 9 10 11	12 13 14 15	16 17 18 19 20
The length of	the straw is 19 cr	m.		
The length of	f the fork is 17 cm	ι.		
The length of	f the spoon is 12 c	m.		
The spoon is	shorter than the fo	ork.		
17 - 12	= 5			
It is 5 cm sho	orter.			
The fork is sh	norter than the stra	aw.		
19 – 17	= 2			
It is 2 cm sho	orter.			
The spoon is	the shortest.			
The straw is t	the longest.			
We can amon	as them starting u	with the chest	at one	
we can arran	Spoon	fork	st one.	7
	shortest	IOIK,	longes	t
	shortest		longes	t.
We can arran	ge them starting v	with the longes	st one.	
	C .	Cont		

- Tell the students that comparing and arranging lengths in cm is the same as in m. Remind them that the units should the same for each set.
- 2. Guide the students to compare the lengths of the items by asking them these questions:
 - Are all the units the same?
 - Which is shorter, the fork or the spoon? By how much?
 - Which is shorter, the straw or the fork? By how much?
 - Which is the shortest?
 - Which is the longest?
- 3. Guide the students to arrange the items. Tell them that we can arrange them starting with the shortest or the longest. Always fill in the shortest and the longest first and then only fill in the last one in between them.
- 4. Ask the students if the arrangement will change when we analyze the items with these questions:
 - Are all the units the same?
 - Which is longer, the fork or the spoon? By how much?
 - Which is longer, the straw or the fork? By how much?
 - Which is the shortest?
 - Which is the longest?
- Guide the students to refer to Starting Point on page 96. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 7 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 93 to 96 in Go Get Maths Workbook P1.

TRY THIS!		
1. Fill in the blanks.		Blackboard
Sofa 2 m	Cupboard	4m
(a) The blackboard i	s m long	er than the cupboard.
(b) The sofa is	m longer than	the cupboard.
(c) The cupboard is	m shorte	r than the blackboard.
(d) The cupboard is	the	
(e) The blackboard	is the).
2. (a) Fill in the blanks	8	
	The pencil	is long.
		The pen is long.
	ne crayon is	long.
impopulation 0 cm 1 2 3 4 5 6	n in the second se	րույակացուղագրողություրակացությունը 11 12 13 14 15 16 17 18 19 20
(b) Arrange the item	s.	
(i) Starting with	h the longest:	
(11) Starting with	n the shortest:	
		chapter / 33



How do you know if a word problem is an addition word problem or a subtraction word problem?

100 | Mathematics Prathomsuksa 1

Lesson 4 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

 Solve addition and subtraction word problems involving length in cm and m.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed Counters

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

 Introduce the 3 simple steps to solve a word problem.

Step 1: Understand the problem

- Ask the students to read the number story and the question silently and analyze the pictures by themselves. Then, read them together with the students. Explain further the number story and the question if the students do not understand.
- Ask the students these questions to ensure they understand:
 - What information is given?
 - What do you need to find?

Step 2: Plan and execute

- Ask the students to draw the suitable bar model including the known and unknown numbers.
- Ask them to find the keyword in the problem that indicates the operation whether to add or to subtract.
- Analyze the bar model drawn.
- Then, write the number equation and solve it.

Step 3: Check the answer

- Always ask the students to check their answer. They need to check if the answer makes sense and is reasonable.
- 2. Work with them the 3 steps in solving the word problems.
- Tell them that when we are comparing the lengths of 2 or more items, we use a different bar model as shown below:





 Guide the students to refer to Starting Point on page 100. Ask them to answer the question. Have a discussion to conclude the lesson.



The ribbon that is left is 7 m long.

The tree is 3 m tall. The flagpole is 2 m taller than the tree. How tall is the flagpole?



Extra notes

Here are some keywords that tell if addition or subtraction is need to be carried out: **Addition** – Altogether, together, both, total, combined

Subtraction – Have left, remain, much taller, much shorter, much longer



102 | Math

natics Prathomsuksa 1

Try This!

As the students still need more examples to familiarize themselves with the 3 steps in solving word problems, solve these 2 word problems together with them.

Further practices

Get the students to complete the practices on pages 97 to 100 in Go Get Maths Workbook P1.

Try This!

Get 2 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 97 to 100 in Go Get Maths Workbook P1. **3.** Mother has a piece of cloth. She cuts it into 2 pieces. The first piece is 8 cm long. The second piece is 10 cm long. How long was the cloth at the beginning?



4. The length of the pencil is 5 cm. The pen is 9 cm longer than the pencil. How long is the pen?





Chapter 8 Mass

The big idea

- Ask the students to name the playground equipment shown in the picture.
- 2. Ask them these questions to start the discussion about seesaws:
 - What do we call this equipment?
 - Where do you usually see a seesaw?
 - Have you played on a seesaw before?
 - Do you stand or sit on a seesaw?
 - What does a seesaw do?
- Ask the students to look at the picture carefully. The kids on the seesaw are not swinging. Ask them these questions to start a discussion:
 - Why is the end of the seesaw where the girl is seated tilted upward?
 - Did you have any such experience? Talk about it.
 - Why is the end of the seesaw where the boy is seated tilted downward?
 - Did you have any such experience? Talk about it.
 - How do you make the seesaw balanced?

Strand 2: Measurement and Geometry

Standard M.2.1

Indicators:

M 2.1 Gr1/2 Measure and compare weight in kilograms and kheeds (hectograms).

Go Get Maths Teacher's Guide P1 | 104

Lesson 1 Comparing objects

Lesson objectives

By the end of the lesson, the students should be able to:

1. Compare masses of things using the correct terms.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

Light, heavy, balance, as light as, as heavy as, lighter, heavier, lightest, heaviest

Materials needed

Stationery, equal-arm balance

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas

- Introduce the terms light and heavy. Explain that a light object is easy to lift and carry, whereas a heavy object is hard to lift and carry.
- 2. Ask students to give examples of light and heavy objects in their daily life.
- 3. Show them a balance. Demonstrate how it works. Guide the students to relate it with how a seesaw works.
- Put 2 similar objects on the pans. Tell the students that one of the objects is as heavy as the other.



Activity for Reinforcement

Materials required: Pencil, dictionary

Objective of the activity: Comparing masses

- 1. Invite a volunteer to the front of the class.
- 2. Ask him to lift the pencil and the dictionary from the table one after another. Ask him which is easier to lift, and which is hard to lift.
- 3. Ask another student to make statements about the pen and dictionary.





Activity for Reinforcement

Draw the diagrams on the board. Then, start the discussion by asking these questions:

- Which is heavier, the green box or the red box?
- Which is heavier, the green box or the blue box?
- Can you guess which is heavier, the red box or the blue box?
- Which is the heaviest? Which is the lightest?

Teaching ideas

- Put 2 different objects on the pans of the balance to compare their masses. Guide the students to make comparison statements of the masses of the objects using the terms *lighter than* and *heavier than*.
- 6. Get 3 different objects and compare their masses with the students. Get the students to make comparison statements of the masses of the objects using the terms *lighter than* and *heavier than*. Then, get 2 volunteers to tell the heaviest and the lightest objects.
- 7. Use the example in the book to explain more.
- Guide the students to refer to Starting Point on page 105. Ask them to answer the question. Have a discussion to conclude the lesson.

Fun with Maths!

Materials required: Things in the class, balance Objective of the activity: Estimating and comparing masses Estimating skill is important. Daily experiences make estimation more accurate.

Try This!

Get 6 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 101 to 104 in Go Get Maths Workbook P1.

Fun Maths!

Work in pairs.

- 1. Look for 2 small items such as a pencil and an eraser.
- 2. Compare the masses of the items. Which is heavier? Which is lighter?
- 3. Use a balance to compare the masses. Is your guess correct?
- 4. Repeat with other items.

Item 1	Item 2	Guess – The heavier item is	Is your guess correct?
Pencil	Eraser	Eraser	Yes

TRY THIS!

Study the pictures. Then, fill in the blanks with *lighter than, heavier than, the heaviest* and *the lightest.*




Extra notes

The non-standard units used to measure mass should be similar. For example, the marbles used should be of the same size.

Lesson 2 Measuring mass

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Measure and compare masses of things using common objects.
- 2. Measure and compare masses of things in kg and kheeds.

Suggested teaching time

6 periods (6 x 50 minutes)

Vocabulary Kilogram, kheed, weighing scale

Materials needed

Equal-arm balance, weighing scale, marbles, cubes, books, anything in the classroom, flour, sand, rice, bags

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Tell the students that they are going to measure mass using non-standard units such as marbles and cubes.
- 2. Demonstrate how to measure mass with marbles using the balance. Tell the students that marbles are placed one by one onto the pan until the pans are balanced. Then, guide them to make statement regarding the mass using the marbles.
- Inform the students that here we use 1 marble as 1 unit of mass. Guide them to make statements about masses using 1 marble as 1 unit of mass.

Go Get Maths Teacher's Guide P1 | 108

Fun with Maths!

comparing masses

accurate.

- Ask the students to measure masses of other objects found in their classroom using cubes. Guide them to make statements of mass using the cubes.
- Ask a student to measure the mass of his book using marbles and then using cubes. Discuss the results by asking them these questions:
 - Are the results the same?
 - Can you give a reason?
 - Will the result be the same if you use other units such as erasers and paper clips?

Materials required: Things in the classroom

Objective of the activity: Estimating and

Estimating skill is important. Daily experiences make estimation more

We can use other objects to measure mass.



The orange is as heavy as 3 cubes. The mass of the orange is 3 units.



The bottle is as heavy as 5 cubes. The mass of the bottle is 5 units.





Work in pairs.

- 1. Look for an object around you.
- 2. Your partner guesses the mass of the object if it is measured with cubes.
- 3. Measure the object with some cubes.
- 4. Then, switch roles for 3 times. Who guessed correctly more?

Pencil case	2 cubes	2 cubes





Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 105 and 106 in Go Get Maths Workbook P1.

- 1. Inform the students that we use kilogram as a unit of mass.
- Show the students a weighing scale.
 Point to the numbers on the scale explaining them.
- Demonstrate how to measure mass with a weighing scale. Guide them to read the scale while pointing to the reading.
- Bring some items that weigh 1 kg, 2 kg, 3kg and 4 kg. Ask some students to measure their masses and read out the masses in kg.



Activity for Reinforcement

Materials required: 1-kg packets of flour and rice

Objective of the activity: Having an idea how heavy is 1 kg

- 1. Ask the students to study the packaging of the flour or rice. Ask them if they notice the mass stated on the packaging.
- 2. Ask the students to lift a packet of thing in hand. Ask them if it is heavy. Tell them that is how heavy is 1 kg.



- Get the students to realize that on the weighing scale that are small markings between the numbers.
- 2. Introduce kheed as a unit of mass and it is for lighter objects.
- Demonstrate how to measure mass using kheed with a weighing scale. Guide them to read the scale while pointing to the reading.
- Bring some items that weigh less than 10 kheed. Ask some students to measure their masses and read out the masses in kheed.
- Guide the students to refer to Starting Point on page 108. Ask them to answer the question. Have a discussion to conclude the lesson.

Thinking Corner!

Put a 1-kg object on the weighing scale. Get a student to read the mass in kg. Get another to read in kheed. Start a discussion with these questions:

- Where was the pointer pointing to?
- What is the mass in kheed? What is the mass in kg?
- Do both readings have the same value? Give your reason.
- Is 1 kg equal to 10 kheed?

Make a conclusion that 1 kg is equal to 10 kheed.

Fun with Maths!

Materials required: Bags of sand, bags, sand Objective of the activity: Measuring mass Have this activity done on a field. The students should have an idea how heavy is 1 kg.

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 107 to 110 in Go Get Maths Workbook P1.





Activity for Reinforcement

Introduce some more examples to help the students to compare masses. Here is an example.

- Draw 1 watermelon and 1 papaya on the board. Write 3 kg on top of the watermelon and 1 kg on top of the papaya.
- 2. Ask these questions:
 - What is the mass of the watermelon?
 - What is the mass of the papaya?
 - Which is heavier? Which is lighter?
 - What is the difference in mass between them?
- 3. Guide them to make statements to compare the masses of the watermelon and papaya.

Lesson 3 Comparing and ordering masses

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Compare and order masses in kg.
- 2. Compare and order masses in kheed.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

Materials needed

Weighing scales, weights

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Demonstrate how to compare the masses of 2 items using a weighing scale. State a discussion by asking these questions:
 - a. What is the mass of the first item?
 - b. What is the mass of the second item?
 - c. Which is heavier? Which is lighter?
 - d. What is the difference in mass between the 2 items?Ask them to make statements to

compare the masses of the items.

2. Use the example in the book to explain further.

- Demonstrate how to compare and arrange the masses of 3 items using a weighing scale. State a discussion by asking these questions:
 - a. What is the mass of the first item?
 - b. What is the mass of the second item?
 - c. What is the mass of the third item?
 - d. What is the difference in mass between any 2 of the 3 items? Ask them to make statements comparing the masses of the items.
 - e. Which is the lightest? Which is the heaviest?

Then, guide them to arrange the items starting from the heaviest and then from the lightest.

4. Use the example in the book to explain further.

$ \begin{array}{c} $
The mass of the bag of cucumbers is 3 kg. The mass of the bag of potatoes is 5 kg. The mass of the bag of tomatoes is 2 kg.
The bag of potatoes is heavier than the bag of cucumbers. 5-3=2 It is 2 kg heavier.
The bag of cucumbers is heavier than the bag of tomatoes. 3-2=1 It is 1 kg heavier.
The bag of potatoes is the heaviest. The bag of tomatoes is the lightest.
We can arrange them starting with the heaviest one. Bag of potatoes, bag of cucumbers, bag of tomatoes heaviest
We can arrange them starting with the lightest one. Bag of tomatoes, bag of cucumbers, bag of potatoes lightest
Chapter 8 115

Activity for Reinforcement

Introduce some more examples to help the students to compare and arrange masses. Here is an example.

- 1. Draw 3 boxes with different masses in kg on the board.
- 2. Ask these questions:
 - What is the mass of each box?
 - What is the difference in mass between any 2 of the 3 boxes? Ask them to make statements comparing the masses of the boxes.
 - Which is the lightest? Which is the heaviest?
- 3. Guide them to arrange the items starting from the heaviest and then from the lightest.

Lean	Comparing and ordering masses in kheeds
The m	ass of the bowl of marbles is 8 kheed.
The m	ass of the bowl of chocolate is 4 kheed.
The m	ass of the bowl of sweets is 1 kheed.
The bo 8 It is 4	well of chocolate is lighter than the bowl of marbles. -4 = 4 kheed lighter.
The bo	the power of the sweets is lighter than the bowl of chocolate. -1 = 3
It is 3	kheed lighter.
The bo	owl of marbles is the heaviest.
The bo	owl of sweets is the lightest.
We can	n arrange them starting with the heaviest one.
e eu	Bowl of marbles, bowl of chocolate, bowl of sweets
	heaviest bightest
Walan	n arrange them starting with the lightest one
we cal	Bowl of sweets bowl of chocolate bowl of marbles
	lightest
	11 Mart V Mart

Activity for Reinforcement

Introduce some more examples to help the students to compare and arrange masses in kheed. Use the similar example for masses in kg.

Teaching ideas

- Like the previous example, guide them to compare and arrange items based on their masses in kheed.
- Guide the students to refer to Starting Point on page 114. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 7 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 111 to 114 in Go Get Maths Workbook P1.

TRY THIS!		
1. Fill in the blanks.		
(a) Box A is kg	heavier than box C.	
(b) Box B is kg	lighter than box A.	
(c) Box C is kg	heavier than box B.	
(d) Box A is the		
(c) Box B is the		
2. Arrange the items.		V
Flower pot	Mobile phone	Teapot
(a) Starting from the light	ghtest:	
(b) Starting from the he	caviest:),
		Chapter 8 117



Lesson 4 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

1. Solving word problems involving masses in kg and kheeds.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed

-

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Guide the students to read and understand the story number in the book.
- 2. Ask them these questions:
 - What operation should we use to solve this question, addition or subtraction?
 - What is the keyword that tells you the operation to use?
 - Can you draw a bar model to represent the operation?
 - How do add them up?
 - Can you give the answer in a complete sentence?

Go Get Maths Teacher's Guide P1 | 118

- 3. Guide the students to read and understand the story number in the book.
- 4. Ask them these questions:
 - What operation should we use to solve this question, addition or subtraction?
 - What is the keyword that tells you the operation to use?
 - Can you draw a bar model to represent the operation?
 - How do subtract them?
 - Can you give the answer in a complete sentence?
- Repeat with the next example. For this one, guide them to notice that it compares the masses of the table and chair. Therefore, the bar model is different from the rest.
- Guide the students to refer to Starting Point on page 118. Ask them to answer the question. Have a discussion to conclude the lesson.

The total mass of the plate and the cake is 7 kheed. The plate has a mass of 2 kheed. How heavy is the cake? 7 kheed 2 kheed 2 7 - 2 = 5The cake has a mass of 5 kheed. The mass of the table is 8 kg. The chair is 5 kg lighter than the table. What is the mass of the chair? 8 kg Why should we Table subtract? Chair 2 5 kg 8 - 5 = 3The mass of the chair is 3 kg.

Activity for Reinforcement

Introduce some more examples to help the students to solve word problems. There are some examples of the word problems:

- The kitten weighs 4 kheed and the puppy weighs 9 kheed. How much heavier is the puppy than the kitten?
- Mother buys 5 kg of flour. Sister uses 2 kg of flour. How much flour is left?
- Sanit has 2 kheed of sugar. He then buys 5 kheed of sugar. How much sugar does he has now?

TRY THIS!

 Mother buys 5 kg of shrimps and 4 kg of squids for making seafood tomyam. What is the total mass of the shrimps and squids?



2. A box of papayas weighs 12 kg. A box of rambutans weighs 3 kg lighter than the box of papayas. What is the mass of the box of rambutans?



Try This!

Get 2 students to answer it and explain how they get their answers. Ask the rest to verify the answers.

Try This!

Get 2 students to answer it and explain how they get their answers. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 115 to 118 in Go Get Maths Workbook P1.


Chapter 9 Numbers to 100

The big idea

- 1. Ask students about animals.
 - a. Can you name a few common animals?
 - b. Do you like sheep?
 - c. What is the color of a sheep?
 - d. What does a group of sheep known as?
- 2. Ask the students to look at the picture carefully. Ask them if they can tell the number of sheep shown in the picture.

Extra notes

"If you cannot sleep, start to imagine some sheep jumping over a fence. Count each of them as they jump over the fence," advise someone. This strategy might work on some, but not all. This is because it is very simple, very repetitive and boring.

Strand 1: Numbers and Algebra

Standard M.1.1 (Numbers) Indicators:

M. 1.1 Gr1/1 Tell the numbers of objects, show quantities of objects of given cardinals numbers. Read and write Hindu- Arabic and Thai numerals showing cardinal numbers not exceeding 100, and 0.

M. 1.1 Gr1/2 Compare cardinal numbers not exceeding 100, and 0 by using comparison symbols: $= \neq > <$.

M. 1.1 Gr1/3 Arrange sequence of cardinal numbers not exceeding 100 and 0 from 3 to 5 numbers.

Standard M.1.2 (Patterns) Indicators:

M. 1.2 Gr1/1 Identify missing numbers in patterns of numbers that increase or decrease by 1s and 10s and identify missing pictures in repeated patterns of 2 geometric figures or 2 other forms.

Lesson 1 Counting to 100

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Count to 100.
- Read and write numbers to 100 in Hindu-Arabic and Thai numerals and in words.
- 3. Tell the place value of each digit in numbers to 100.
- 4. Write numbers in expanded form.

Suggested teaching time

3 periods (3 x 50 minutes)

Vocabulary

Twenty-one to one hundred

Materials needed

Straws, rubber bands, counters

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas

- 1. Tell the students that they can count on in tens.
- 2. Guide them to count on and read out loud in tens from 10 to 100. Spell with them the words too.



Activity for Reinforcement

Materials required: Straws and rubber bands

Objective of the activity: Counting to 100 in tens

- 1. Get the students in groups of 5.
- 2. Give each group 100 straws and 10 rubber bands.
- 3. Ask them to bundle 10 straws with a rubber band.
- 4. Then, ask them to count the straws in tens.

	-	
10 crayons 10 crayons 10 crayons 10 crayons	డం	50 fifty
10 crayons 10 crayons 10 crayons 10 crayons	٥٩	60 sixty
10 crayons	ຝ໐	70 seventy
10 crayons	ಎಂ	80 eighty
10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons 10 croyons	ನಂ	90 ninety
10 crayons	ဓဝဝ	100 one hundred
124 Mathematics Prothonsuksa 1		

- 3. Write some numbers in numerals on the board and get some students to write the numbers in words. Ask the rest to verify.
- 4. Write some numbers in words and get some students to write them in numerals. Ask the rest to verify.



- 5. Guide the students to count on in tens and ones.
- 6. Use the example of crayons to count with them. The students should know that 24 is made up of 20 and 4. 20 is spelt as twenty and 24 is spelt as twenty-four. Emphasize the hyphen.
- 7. Repeat with the next example of sticks.
- Write some numbers in numerals on the board and get some students to write the numbers in words. Get the rest to verify.
- Write some numbers in words and get some students to write them in numerals. Get the rest to verify.



Activity for Reinforcement

Materials required: Straws and rubber bands

Objective of the activity: Counting to 100 in tens and ones

- 1. Get the students in groups of 5.
- 2. Give each group some straws (<100) and some rubber bands.
- 3. Ask them to bundle 10 straws with a rubber band.
- 4. Then, ask them to count the straws in tens and ones, and write the number in numerals and words.

(10 crayons)	10 crayons	10 crayon:		
	3 tens			6 ones
36 = 3 tens 6 on	les	Tens 3	Ones 6	
50 – 50 + 0 The digit 3 in 30	6 is in the tens	place Its value	e is 30	
The digit 6 in 30	6 is in the one	s place. Its valu	e is 6	
	6 tens			9 ones
	6 tens	10 4444444 10 4444444		9 ones
69 = 6 tens 9 on	6 tens	Tens	Ones	9 ones
69 = 6 tens 9 on 69 = 60 + 9	6 tens	Tens 6	Ones 9	9 ones
69 = 6 tens 9 on 69 = 60 + 9 The digit 6 in 69	6 tens	Tens 6 place. Its value	Ones 9 2 is 60.	9 ones
69 = 6 tens 9 on 69 = 60 + 9 The digit 6 in 69 The digit 9 in 69	6 tens 9 is in the tens 9 is in the one	Tens 6 place. Its value s place. Its value	Ones 9 c is 60. c is 9.	9 ones
69 = 6 tens 9 on 69 = 60 + 9 The digit 6 in 69 The digit 9 in 69	6 tens 9 is in the tens 9 is in the one	Tens 6 place. Its value s place. Its value	Ones 9 2 is 60. c is 9.	9 ones
69 = 6 tens 9 on 69 = 60 + 9 The digit 6 in 69 The digit 9 in 69	6 tens ees 9 is in the tens 9 is in the one:	Tens 6 place. Its value s place. Its value	Ones 9 2 is 60. c is 9.	9 ones
69 = 6 tens 9 on $69 = 60 + 9$ The digit 6 in 69 The digit 9 in 69 The digit 9 in 69	6 tens 9 is in the tens 9 is in the one	Tens 6 s place. Its value s place. Its value	Ones 9 c is 60. c is 9.	9 ones



- 1. Help the students to recall place values.
- 2. Write 16 big on the board. Ask the students these questions:
 - How many digits are there in this number?
 - Does each digit represent different values?
 - What is the place value of the digit 1? What is its value?
 - What is the place value of the digit 6? What is its value?
- Repeat with other numbers less than 21.
- 4. Tell them that this concept is used for larger numbers too.
- Use the examples in the book to explain further. Tell that 36 is made up of 3 tens and 6 ones while 69 is made up of 6 tens and 9 ones.
- 6. Write a few numbers (<100) on the board. Ask some students to fill up the place-value chart for each number and state the place value of each digit and its value.
- Guide the students to refer to Starting Point on page 123. Ask them to answer the question. Have a discussion to conclude the lesson.

Thinking Corner!

Give the students some counters. Ask them to use the counters to show their answers to the 2 questions.

Try This!

Get 9 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 119 to 122 in Go Get Maths Workbook P1.

TRY THIS!

1. Count. Write in numerals and words.

Items	Thai numerals	Hindu-Arabic numerals	Words
······································			
 Fill in the blanks. (a) tens ones = 28 (c) tens ones = 65 	(b) (d)	tens or tens or	nes = 47 nes = 92
 Fill in the blanks. (a) The digit 7 in 73 (b) The digit 3 in 73 	3 is in the	place. Its value	e is .



Activity for Reinforcement

Materials required: Straws and rubber bands Objective of the activity: Comparing numbers

- 1. Show the students 2 and 8 bundles of 10 straws each.
- 2. Ask them the number of straws in each group.
- 3. Ask them these questions to start the discussion:
 - How many bundles of straws and how many straws are there in each group?
 - Which group has more straws? How do you know?
- 4. Tell them that 20 has 2 tens and 80 has 8 tens. So, 80 is greater than 20.
- 5. Repeat with other numbers of straws.

Lesson 2 Comparing and ordering numbers

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Compare numbers not exceeding 100.
- Order 3 to 5 numbers not exceeding 100.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

-

Materials needed

Straws, rubber bands, paper

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas

- Help the students to recall the meaning of =, > and <. Write 2 numbers (0 to 20) on the board and invite a student to compare the numbers using the symbols. Repeat a few times with other students.
- Tell students that when comparing any 2 2-digit numbers, always compare their tens first. The number with greater tens is the greater number. The number with smaller tens is the smaller number.
- 3. Use the examples to explain further with place-value charts.

Go Get Maths Teacher's Guide P1 | 128

- Ask the students what to do when the tens are the same when we are comparing 2 2-digit numbers. Should they continue to compare the ones?
- 2. Ask them to always compare the tens first. If the tens are the same, then, compare the ones.
- 3. Use the examples in the book to explain further.

Try This!

Get 3 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 123 to 126 in Go Get Maths Workbook P1.



Activity for Reinforcement

Introduce some more examples to reinforce the students' understanding of comparing numbers.

- 1. Write 2 numbers on the board and a blank place-value chart.
- Invite a volunteer to compare the numbers using the place-value chart. Let him or her to explain how he or she gets the answer.
- 3. Let another student to verify the answer.
- 4. Repeat with other numbers.



Activity for Reinforcement

Write a few sets of 3 numbers on the board with their empty place-value charts. Ask 3 students to fill up the charts and compare the numbers. Get some students to arrange the numbers from the greatest and also from the smallest. Ask the rest of the students to verify the answers.

Teaching ideas

- Tell the students that comparing 3 numbers is similar to comparing 2 numbers by using the place-value charts.
- 2. Write 3 numbers on the board with their empty place-value charts. Invite 3 students to fill up the charts.
- Invite another 3 students to compare. Ask them to explain how they compare using the charts.
- Ask another 2 students to tell the greatest number and the smallest number among the 3 numbers.
- Guide them to arrange the numbers from the smallest to the greatest and also from the greatest to the smallest.
- Advise the students to be cautious when ordering numbers, not to order wrongly.
- 7. Use the example in the book to explain further.

Thinking Corner!

Guide the students to read and understand the questions. Encourage them to think by asking them these questions:

- Which place in a number has a higher value, tens or ones?
- If we compare the ones first, and they are different, should we proceed by comparing the tens?

- Tell the students that comparing 4 numbers is similar to comparing 3 numbers by using the place-value charts.
- Write 4 numbers on the board with their empty place-value charts. Invite 4 students to fill up the charts.
- Invite another 4 students to compare. Ask them to explain how they compare using the charts.
- Ask another 2 students to tell the greatest number and the smallest number among the 4 numbers.
- Guide them to arrange the numbers from the smallest to the greatest and also from the greatest to the smallest.
- Advise the students to be cautious when ordering numbers, not to order wrongly.
- 7. Use the example in the book to explain further.



Activity for Reinforcement

Write a few sets of 4 numbers on the board with their empty place-value charts. Get some students fill up the charts and some to arrange the numbers from the greatest and also from the smallest. Ask the rest of the students to verify the answers.



Activity for Reinforcement

Write a few sets of 5 numbers on the board with their empty place-value charts. Get some students to fill up the chart and some to arrange the numbers from the greatest and also from the smallest. Ask the rest of the students to verify the answers.

Teaching ideas

- Tell the students that comparing 5 numbers is similar to comparing 4 or 3 numbers by using the place-value charts.
- 2. Repeat the previous teaching idea with the students.
- Advise the students to be cautious when ordering numbers, not to order wrongly.
- 4. Use the example in the book to explain further.

Fun with Maths!

ordering numbers

groups too.

Materials required: Paper

- 4. Use the example in the book to explain further.
- Guide the students to refer to Starting Point on page 128. Ask them to answer the question. Have a discussion to conclude the lesson.

Objective of the activity: Comparing and

The answers can be verified by different

Arrange these numbers starting from the greatest number. 60 43 93 48 Compare the tens. 9 is the greatest. So, 93 is the greatest number. 4 is the smallest. Compare the ones of 48 and 43. 3 is smaller than 8. So, 43 is smaller than 48 and 43 is the smallest number. Compare the tens of 60 and 70. 7 is greater than 6. So, 70 is greater than 60. 93, 70, 60, 48. 43 smallest greatest Fun at Mathal Work in groups of 5. 1. Write 5 numbers on a piece of paper and the instruction to arrange the numbers starting with the smallest or the greatest number. 2. Exchange the paper with other groups. 45, 29, 87, 63, 85 Arrange starting with the greatest number. 3. Then, arrange the numbers as stated on the paper. 4. The fastest group who answered correctly wins.

TRY THIS! Fill in the blanks.
1. Compare these numbers.
(a) 34 43 40 (b) 82 39 54 86
The greatest number is The greatest number is
The smallest number is The smallest number is
(c) 46 40 68 84 60
The greatest number is
The smallest number is
2. Arrange these numbers.
(a) 57 73 51
Starting with the smallest number:
Starting with the greatest number:
(b) 81 89 98 95
Starting with the smallest number:
Starting with the greatest number
starting with the greatest humber.
(c) 50 85 68 88 62
Starting with the smallest number:
Starting with the greatest number:
134 Mathematics Prathomsuksa 1

Try This!

Get 9 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 127 and 128 in Go Get Maths Workbook P1.

Lesson 3 Number patterns

Lesson objectives

By the end of the lesson, the students should be able to:

 Identify the missing numbers in number patterns that increase or decrease by 1s and 10s.

Suggested teaching time

5 periods (5 x 40 minutes)

Vocabulary

Number pattern

Materials needed

Starting point

Help the students to understand the questions. Ask them if they know the answers and what they will learn today.

Teaching ideas



- Draw the above on the board. Guide them to analyze this number pattern by asking these questions:
 - How many balls are the in the 1st, 2nd, 3rd and 4th rows?
 - How many balls will there be on the 5th row if this pattern continues?
 - How do you know?

Guide them to realize that the number pattern increases by 1.

- Lead the students to identify the number pattern of 1 more for counting on and 1 less for counting back.
- 3. Use the examples in the book to explain further.
- 135 | Go Get Maths Teacher's Guide P1



Activity for Reinforcement

Show some more examples to reinforce the students' understanding of number patterns of 1 more and 1 less. Ask the students to identify the patterns.





Activity for Reinforcement

Show some more examples to reinforce the students' understanding of number patterns of 10 more and 10 less. Ask the students to identify the patterns.

Teaching ideas

- 4. Tell the students that number patterns can be of 10 more or 10 less.
- Lead the students to identify the pattern of 10 more for counting on and 10 less for counting back. Use the examples in the book to explain further.
- Guide the students to make number patterns that increase. Write 11 on the board and tell them that they are going to build a number pattern of 1 more starting with 11. Ask them these questions to start the discussion:
 - What does a number pattern of 1 more mean?
 - How do we find the 2nd number?
 Why should we add, not subtract?
 Why should we add 1?
 - How do we find the 3rd number?
 Why should we add, not subtract?
 Why should we add 1? Should we add 1 to the 1st number or the 2nd number?

Repeat with other numbers to make number patterns of 10 more.

- Guide the students to make number patterns that decreasing. Write 14 on the board and tell them that they are going to build a number pattern of 1 less starting with 14. Ask them these questions to start the discussion:
 - What does a number pattern of 1 less mean?
 - How do we find the 2nd number?
 Why should we subtract, not add?
 Why should we subtract 1?
 - How do we find the 3rd number? Why should we subtract, not add? Why should we subtract 1? Should we subtract 1 from the 1st number or the 2nd number?

Repeat with other numbers to make number patterns of 10 less.

starting from 86. 10 less 86 We subtract 10 from the number to find the next number 86 - 10 = 7676 - 10 = 66 and so on. 86 76 66 56 36 26 16 46 TRY THIS! 1. Make a number pattern that has numbers 1 less than the numbers before them, starting from 52. 1 less 52 2. Make a number pattern that has numbers 10 more than the numbers before them, starting from 17.

Make a number pattern that has numbers 10 less than the numbers before them,



Try This!

Get 2 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 129 and 130 in Go Get Maths Workbook P1.



- Tell the students that sometimes they need to find the missing numbers in a number pattern. For this task, they need to identify the type of the number pattern first.
- Write 3, 4, 5, , 7, 8, 9 on the board.
 Ask them these questions to start the discussion:
 - Are the numbers arranged from the smallest to the greatest or from the greatest to the smallest? How do you know?
 - What is the difference between the 1st number and the 2nd number, and between the 2nd number and the 3rd number?
 - Is this a number pattern of 1 more, 1 less, 10 more or 10 less?
 - What should be added the 3rd number or subtract from the 3rd in order to find the missing number?
 - How do you check the answer? Repeat with 14, 13, 12, 11, _ , 9, 8.
- 3. Use the examples in the book to explain further.

- 4. Tell the students that there might be more than 1 missing number in a number pattern, but the method is similar as finding a missing number in a number pattern.
- 5. Always ask the students to identify if the number pattern is increasing or decreasing first. Then find out the difference between 2 consecutive numbers in the number pattern.
- 6. Use the examples in the book to explain further.
- 7. Guide the students to refer to **Starting** Point on page 135. Ask them to answer the question. Have a discussion to conclude the lesson.

Complete the number pattern below.



What are the missing numbers in the number pattern below?

	53	P	51	50	Q	48	47
51 – 1 48 – 4	50 = 1 47 = 1						

So, each number is 1 less than the number before it.

= 53 - 1	Q = 50 - 1
= 52	= 49

Р

TR	Y THIS	! Fill i	in the blar	nks.				
1.	75	74	73	72	71		69	
2.			29	39	49	59		
3.	48	49	50			53		
							(Chapter 9

Try This!

Get 3 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 131 and 132 in Go Get Maths Workbook P1.



Strand 1: Numbers and Algebra

Standard M.1.1 (Numbers)

Indicators:

M 1.1 Gr1/4 Find the value of unknown in addition and subtraction number sentence of cardinal numbers not exceeding 100, and 0.

M 1.1 Gr1/5 Show mathematical methods of finding answers to addition and subtraction word problems of cardinal numbers not exceeding 100 and 0.

Chapter 10 Addition and subtraction within 100

The big idea

- Help the students to recall how to add and subtract. Here is an example:
 - a. Write '6 + 7 = ' on the board.
 - b. Invite a volunteer to give the answer and explain how he gets the answer.
 - c. Get another student to verify. Repeat with other addition and subtraction questions.
- 2. Ask the students to look at the picture carefully. Ask them these questions to start a discussion:
 - a. How many balloons is the boy holding?
 - b. How many balloons is the father holding?
 - c. How do you find the total number of balloons? How do you add them up?

Lesson 1 Ways to add

Lesson objectives

By the end of the lesson, the students should be able to: 1. Add within 100.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Vertically

Materials needed

Rubber bands, straws, base-10 blocks

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- 1. Tell the students that they can use the counting on strategy to add within 100.
- Ask a student to demonstrate how to add 32 and 5 using the number ladder. Together with the students point to 32 and count on 5 steps.
- 3. Remind them to count on from the greater number.
- Tell that we can use the adding ones strategy too. Get a student to demonstrate this strategy for 46 + 3. Tell them that 46 is made up of 40 and 6. Add the ones first and then add the tens.



Activity for Reinforcement

The students need time to practice these 2 strategies for addition within 100. Write a few addition questions on the board. Invite some students to show how they get the answers. Get the rest to verify the answers.



Activity for Reinforcement

Materials required: Straws, rubber bands Objective of the activity: Adding without regrouping

- 1. Ask the students to work in pairs.
- 2. Write 34 + 3 = 0 on the board.
- Ask the students to make 34 straws in bundles of tens and ones in a group, and another 3 straws in another group.
- 4. Ask the students to put together the ones from the 2 groups. How many ones are there? How many tens are there? How many straws are there altogether?
- 5. Repeat with other numbers.

Teaching ideas

- Use base-10 blocks to represent the vertical addition. Guide them to add the ones first and then the tens of the blocks. Guide them to relate this method with the vertical addition.
- Use a few examples to reinforce the understanding of the students using the base-10 blocks.
- Inform the students that they can add vertically too. Guide them to write the numbers vertically.
- 8. Reiterate that the alignment of the numbers based on the place value of each digit is important.
- 9. Tell them to always add the ones first before adding the tens.
- 10. Use the examples in the books to explain further.
- 11. Then, let them add without using the blocks.

- 1. Tell students that when we are adding multiples of 10 such as 10, 20, 30... to a number, we can count on in tens.
- 2. Use the example in the book to explain.
- Inform the students that we can add the tens first. 23 is made up 2 tens and 3 ones, and 40 is made up 4 tens. We can add the tens first, 2 tens + 4 tens = 6 tens. Then, add in the ones, making 63.
- Use base-10 blocks to represent the vertical addition. Guide them to add the ones first and then the tens of the blocks. Guide them to relate this method with the vertical addition.

40 + 50 - 2	46 56 66	6 76		
So, 46 + 30 = 76	+ 10 + 10	+ 10		
We can also add tens by $23 + 40 = ?$	y using the number	bond.		
23 +/40 3 20 / 60	20 + 40 = 60 60 + 3 = 63	0 (add tens)	$\frac{\begin{array}{c}23\\\underline{40}\\\underline{63}\end{array}}+$	
So, $23 + 40 = 63$				
We can add vertically. $35 + 10 = ?$				
Step 1: Add the ones.				
		Tens 3 1	Ones 5 0 5	

Activity for Reinforcement

The students need time to practice the 3 strategies to add tens to a number. Here is one way to carry out the practice.

- 1. Write 40 + 28 = ? on the board.
- 2. Get each of the 3 students to add using one of the 3 strategies. Get them to explain too.
- 3. Get the rest to verify the answers.


- 5. Repeat with the example in the book.
- Use a few examples to reinforce the understanding of the students using the base-10 blocks.'
- 7. Then, let them add without using the blocks.

Thinking Corner!

- 1. Ask the students to add
 - 50 + 43 = ?
 - 43 + 50 = ?
- 2. Ask them if the answers are the same.
- Help to recall the commutative property of addition. Tell them that this rule applies here.

- 1. Tell the students that when adding 2 2digit numbers, it is the best to use the adding vertically strategy.
- 2. Use base-10 blocks to represent the vertical addition. Guide them to add the ones first and then the tens of the blocks. Guide them to relate this method with the vertical addition.
- Use a few examples to reinforce the understanding of the students using the base-10 blocks.'
- 4. Then, let them add without using the blocks.
- 5. Guide them to write the numbers vertically.
- Reiterate that the alignment of the numbers based on the place value of each digit is important.
- 7. Tell them to always add the ones first before adding the tens.
- 8. Use the examples in the books to explain further.
- Guide the students to refer to Starting Point on page 141. Ask them to answer the question. Have a discussion to conclude the lesson.



Activity for Reinforcement

Materials required: Straws, rubber bands

Objective of the activity: Adding without regrouping

- a. Ask the students to work in pairs.
- b. Write 26 + 32 =on the board.
- c. Ask the students to make 26 straws and 32 straws in bundles of tens and ones as 2 groups.
- d. Ask the students to put together the ones from the 2 groups. How many ones are there?
- e. Ask the students to put together the tens from the 2 groups. How many tens are there? How many straws are there altogether?
- f. Repeat with other numbers.



Try This!

Get 11 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 133 to 139 in Go Get Maths Workbook P1.

Lesson 2 Ways to subtract

Lesson objectives

By the end of the lesson, the students should be able to: 1. Subtract within 100.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed

Straws, rubber bands, base-10 blocks

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Tell the students that they can use the counting back strategy to subtract within 100.
- 2. Using the example in the book, count back with them 4 steps from 48 in the number ladder to get 44.
- 3. Inform them that number bond strategy can be used too.
- Guide them how to subtract using the number bond strategy. 67 is made up of 6 tens and 7 ones. Subtract the ones first by subtracting 5 ones from 7 ones to get 2 ones. Then, add the tens to get 62.



Activity for Reinforcement

The students need time to practice these 2 strategies for subtraction within 100. Write a few subtraction questions on the board. Invite some students to show how they get the answers. Get the rest to verify the answers.



Activity for Reinforcement

Materials required: Straws, rubber bands Objective of the activity: Subtracting without regrouping

- 1. Ask the students to work in pairs.
- 2. Write 27 4 =on the board.
- 3. Ask the students to make 27 straws in bundles of tens and ones.
- 4. Ask the student to take away 4 ones. How many ones are left? How many tens are left? How many straws are left altogether?
- 5. Repeat with other numbers.

- 5. Inform the students that they can subtract vertically too.
- Use base-10 blocks to represent the vertical subtraction. Guide them to subtract the ones first and then the tens of the blocks. Guide them to relate this method with the vertical subtraction.
- Use a few examples to reinforce the understanding of the students using the base-10 blocks.'
- 8. Then, let them subtract without using the blocks.
- 9. Guide them to write the numbers vertically.
- 10. Reiterate that the alignment of the numbers based on the place value of each digit is important.
- 11. Tell them to always subtract the ones first before subtracting the tens.
- 12. Use the examples in the books to explain further.

- Tell students that when we are subtracting multiples of 10 such as 10, 20, 30... from a number, we can count back in tens.
- 2. Use the example in the book to explain.
- Inform the students that we also can subtract the tens first. 71 is made up 7 tens and 1 one, and 30 is made up 3 tens. We can subtract the tens first, 7 tens - 3 tens = 4 tens. Then, add in the ones, making 41.
- 4. Guide the students to subtract vertically too.
- 5. Use base-10 blocks to represent the vertical subtraction. Guide them to subtract the ones first and then the tens of the blocks. Guide them to relate this method with the vertical subtraction.

	19	29	39	49	59		
	- 1	10 - 1	10 -	10 -	10		
So, $59 - 40 = 19$							
We can also subtract	tens by us	ing the	numbe	r bond			
71 - 30 = ?							
71 - 30							7 1
							3 0 -
						-	4 1
70 - 30	0 = 40 (sul	btract t	ens)				
40 ± 1	- 41						
So, $71 - 30 = 41$							
We can subtract verti	cally.						
44 - 20 = ?							
Step 1: Subtract the	ones.						
					Tens	Ones	
					4	4	_
					2	0	_

Activity for Reinforcement

The students need time to practice the 3 strategies to subtract tens from a number. Here is an example.

- 1. Write 57 40 = ? on the board.
- 2. Get 3 students to subtract. Each of them should use one of the 3 strategies. Get them to explain too.
- 3. Get the rest to verify the answers.



- 6. Use a few examples to reinforce the understanding of the students using the base-10 blocks.'
- 7. Then, let them subtract without using the blocks.
- 8. Guide them to write the numbers vertically.
- 9. Reiterate that the alignment of the numbers based on the place value of each digit is important.
- 10. Tell them to always subtract the ones first before subtracting the tens.
- 11. Repeat with the example in the book.
- 12. Use a few examples to repeat with the students.

- Tell the students that when subtracting 2 2-digit numbers, it is the best to use the subtracting vertically strategy.
- 2. Use base-10 blocks to represent the vertical subtraction. Guide them to subtract the ones first and then the tens of the blocks. Guide them to relate this method with the vertical subtraction.
- Use a few examples to reinforce the understanding of the students using the base-10 blocks.'
- 4. Then, let them subtract without using the blocks.
- 5. Guide them to write the numbers vertically.
- Reiterate that the alignment based on the place value of each digit is important.
- 7. Tell them to always subtract the ones first before subtracting the tens.
- 8. Use the examples in the books to explain further.
- Guide the students to refer to Starting Point on page 147. Ask them to answer the question. Have a discussion to conclude the lesson.



Activity for Reinforcement

Materials required: Straws, rubber bands Objective of the activity: Subtracting without regrouping

- a. Ask the students to work in pairs.
- b. Write 37 11 =on the board.
- c. Ask the students to make 37 straws in bundles of tens and ones.
- d. Ask the students to take away 1 one. How many ones are left?
- e. Ask the students to take away 1 ten. How many tens are left? How many straws are left altogether?
- f. Repeat with other numbers.



Try This!

Get 11 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 140 to 146 in Go Get Maths Workbook P1.



Lesson 3 Finding the unknowns in addition and subtraction

Lesson objectives

By the end of the lesson, the students should be able to:

- 1. Find the unknowns in addition.
- 2. Find the unknowns in subtraction.

Suggested teaching time

4 periods (4 x 50 minutes)

Vocabulary

Materials needed

-

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

- Tell the students that they will learn to use the bar models to find the unknowns in addition.
- Help the students to recall how to use the bar model. Write '5 + ? = 14' on the board. Ask a student to draw the bar model and explain what each rectangle represents.
- 3. Guide the students to count on from 5 to reach 14 or count back from 14 to reach 5 to get the answer.
- 4. Use the example in the book to make them understand more.
- Discuss with them if this method is still suitable when the difference between the numbers is great such as
 - 26 + ? = 79







- Help the students to recall the relationships between the numbers in a fact family using the example in the book.
- Then, draw a bar model and ask some students to list all the addition and subtraction equations based on it.
- Use the examples in the book to guide the students to find the unknown in addition.
- 9. As the students need more practices, ask them to draw the bar models and find the unknowns of these:
 - 36 + ? = 82
 - ? + 85 = 97
 - 14 + ? = 68
 - ? + 62 = 79

- Tell the students that we can use the fact family to find the unknowns in subtraction too.
- 2. Use the examples in the book to guide them to find the unknowns.
- 3. As the students need more practices, ask them to draw the bar models and find the unknowns of these:
 - 54 ? = 12
 - 84 ? = 26
 - ? 38 = 39
 - ? 73 = 12
- Guide the students to refer to Starting Point on page 153. Ask them to answer the question. Have a discussion to conclude the lesson.



Thinking corner!

We can also use the number bond to find the missing number in this equation.



What is the missing number?

TRY THIS!

Complete the bar model for each equation. Then, find the missing number.



Thinking Corner!

Guide them to use the number bond to find the unknown in the book.

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 147 and 148 in Go Get Maths Workbook P1.

Lesson 4 Word problems

Lesson objectives

By the end of the lesson, the students should be able to:

1. Solve word problems involving addition and subtraction within 100.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Materials needed

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Guide the students to read and understand the number story and the question.
- 2. Ask them if this involves addition or subtraction. Ask for their reasons.
- 3. Guide them to realize that the 2 examples are comparison questions.
- 4. Guide them to draw the bar models.
- 5. Lead them to realize that the difference is given in the first example, but in the second example, they need to find the difference.



Extra Notes

Tell the students that before they draw the bar model, they need to understand the number story and the question first. Then, they only can draw the suitable bar model.



 Lead the students to realize that in this example, they need to find the whole.
 So, a common parts-whole bar model is used.

- Guide the students to read and understand the number story and the question.
- 2. Ask them if this involves addition or subtraction. Ask for their reasons.
- Ask them if they should use a comparison bar model or a part-whole bar model. Ask for their reasons.
- 4. Then, guide them to draw the bar model and solve the problem.

- 5. Guide the students to read and understand each of the number stories and the questions.
- 6. Ask them if it involves addition or subtraction. Ask for their reasons.
- Ask them if they should use a comparison bar model or a part-whole bar model. Ask for their reasons.
- 8. Then, guide them to draw the bar model and solve the problem.

The stall has 40 durians and 88 mangoes. How many more mangoes than durians does the stall have?





8 8

The stall has 48 more mangoes than durians.

In a park, there are 77 children. There are 53 more children than adults. How many adults are there in the park?



Thinking Corner!

Lead a discussion by asking them these questions:

- What did you notice about the examples given on pages 157 to 159 in the textbook?
- Do you realize that there are 2 types of bar models used in those examples?
- What can you say about the examples that use the part-whole bar model? Are the questions comparing 2 items?
- What can you say about the examples that use the comparison bar model? Are the questions comparing 2 items?
- When do we use these 2 bar models?



TRY THIS! Complete the bar model for each problem. Then, solve it.

1. Box A has 94 books. Box B has 33 fewer books than box A. How many books are there in box B?



2. There are 94 passengers on the train. 64 passengers get off at a station. How many passengers are there on the train now?



Try This!

Get 4 students to answer these 4 questions. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 149 to 152 in Go Get Maths Workbook P1.

Further practices

Get the students to complete the practices on pages 149 to 152 in Go Get Maths Workbook P1.





- 1. Write '34 + 52 = 86' on the board.
- 2. Guide them to create a word problem based on the equation. Use the example in the book to explain further.
- 3. Invite some students to create other word problems based on the same equation.
- 4. Repeat the same for the subtraction equation.
- Guide the students to refer to Starting Point on page 157. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 153 and 154 in Go Get Maths Workbook P1.





TRY THIS!

Create an addition word problem using each of the addition equations below.
 (a) 24 + 65 = 89

(b) 40 + 10 = 50

 Create a subtraction word problem using each of the subtraction equations below.

(a) 65 - 23 = 42
(b) 88 - 72 = 16





Chapter 11 Picture graphs

The big idea

- Ask the students to look at the picture carefully. Ask them these questions to start a discussion:
 - a) How many oranges are there on the tree?
 - b) How many pears are there on the tree?
 - c) How many apples are there on the tree?
 - d) How do we present this information in a pictorial chart?
- Lead the students to analyze the chart. Ask them what they say about the chart.

Strand 3: Statistics and Probability

Standard M.3.1

Indicators:

M 3.1 Gr1/1 Use data from pictograms to find the answers of word problems and using 1 picture represents 1 unit.

Go Get Maths Teacher's Guide P1 | 164

Lesson 1 Reading a picture graph

Lesson objectives

By the end of the lesson, the students should be able to:

1. Interpret information from a picture graph.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

Picture graph, vertical, horizontal

Materials needed

Colored buttons

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

- This part helps to explain how a picture graph is formed although the students do not need to create a picture graph.
- Explain that we can arrange the colored buttons based on the colors and from there we will have the number of each colored buttons.





Extra notes

A picture graph is a way of showing data using images or symbols. Each image or symbol stands for a certain number of things.

- Then, we can convert the information into a picture graph. In this level, each symbol in a picture graph represents a unit of the item only.
- 4. Show them that picture graphs can be presented vertically and horizontally too.
- Lead the students to always read the title of the picture graph and realize how many items a picture or a symbol represents.
- 6. Guide them to read the picture graph.
 - There are 2 green buttons.
 - There are 4 red buttons.
 - There are 3 blue buttons.
 - There are 4 yellow buttons.



- 1. Ask the students to study the picture graph shown.
- 2. Ask them these questions to start a discussion:
 - What is the title of the picture graph? What does it tell us?
 - What does each check represent?
 - How many types of fruits are there?
 - How many checks are there for apples? How many apples are there?
 - How many checks are there for oranges? How many oranges are there?
 - How many checks are there for pears? How many pears are there?
 - How many checks are there for mangoes? How many mangoes are there?
- Guide the students to refer to Starting Point on page 165. Ask them to answer the question. Have a discussion to conclude the lesson.

Try This!

Get 4 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 155 and 156 in Go Get Maths Workbook P1.



Each 🗸 represents 1 fruit.

Based on the picture graph above, there are 3 apples, 7 oranges, 4 pears and 2 mangoes in the refrigerator.







Lesson 2 Solving problems

Lesson objectives

By the end of the lesson, the students should be able to:

1. Solve word problems involving picture graphs.

Suggested teaching time

5 periods (5 x 50 minutes)

Vocabulary

-

Materials needed

-

Starting point

Help the students to understand the question. Ask them if they know the answer and what they will learn today.

Teaching ideas

- Tell the students that there is a lot of information we can get from a picture graph.
- 2. At the beginning, get a student to explain the title and another to tell the number of children the symbol represents.
- It is a good idea to have the students to write the number of items for each column.
- 4. However, it is also good to have the students practice their spatial reasoning such as:
 - 'most' the highest/longest column
 - 'least' lowest/shortest column
 - 'more than', 'less than', 'as many as' making one-to-one comparison of 2 columns

Go Get Maths Teacher's Guide P1 | 168

Try This!

Get 9 students to answer it. Ask the rest to verify the answers.





2. A	2. Answer the questions based on the picture graph.							
_		Animals in a pet shop						
	Cat	☆						
	Dog 🙀	☆ ☆						
	Tortoise 🐥	$\bigstar \bigstar \bigstar \bigstar \bigstar$						
	Bird 💓	☆ ☆						
	Fish 🡼	* * * * * *	7					
1	Each 🚖 represents 1 animal.							
(a) H	(a) How many dogs are there in the pet shop?							
(b) H	(b) How many tortoises are there in the pet shop?							
(c) H	(c) How many fish are there in the pet shop?							
(d) H	(d) How many fewer birds than fish are there?							
(c) H	(c) How many more tortoises than cats are there?							
(f) W	(f) Which animal is the most?							
(g) W	(g) Which animal is the least?							
(h) H	(h) How many animals are there altogether?							
70 Mathemati	cs Prathomsuksa 1							

Try This!

Get 8 students to answer it. Ask the rest to verify the answers.

Further practices

Get the students to complete the practices on pages 157 and 159 in Go Get Maths Workbook P1.

To find out if the students have mastered the second half of the year's content, ask them to complete the **Revision 2** on pages 160 to 166 in Go Get Maths Workbook P1.

Computational Thinking

The big idea

- Tell the students that computational thinking is a way to solve a problem through a set of systematic approaches.
- 2. Explain briefly the 4 skills in computational thinking.
- 3. Give examples of how each skill is used.
 - Decomposition: For example, to tidy up your room, you need break this task into smaller tasks like making your bed, tidying your table, organizing your clothes, sweeping the floor and more.
 - Pattern recognition: For example, to tidy up your table, you may realize you need to sort out your books according their genres.
 - Algorithms: For example, to tidy up your room, you need to plan which task to do first and which task follows. Should you mop the floor first and then sweep the floor?
 - Abstraction: For example, when you are tasked to tidy up your room, you should ignore what online games your siblings are playing.



Computational thinking is not about programming a computer or thinking like a computer. It is rather a set of systematic approaches to solving problems. Then, we can present the solutions in a way a computer or a human or both can understand.

There are four skills or elements in computational thinking.



Extra notes

It is not necessary to use all the 4 skills of computational thinking when solving a problem.



Example 1

- 1. Guide the students to read and understand the question.
- 2. Ask them to analyze the picture.
- 3. In this example, 2 skills are used pattern recognition and abstraction.

Example 2

- 1. Guide the students to read and understand the question.
- 2. Ask them to analyze the picture.
- 3. In this example, 2 skills are used decomposition and algorithms.