## PROCESS SKI LLS I N PROBLEM SOLVI NG (L1) CONTENTS

## Part I The Model Approach

Unit 1 Addition Within 10 ..... 1(Part-Whole Model / Putting-Together Concept / Adding-On Concept)
Unit 2 Subtraction Within 10 ..... 10
(Part-Whole Model / Set-And-Subset Concept / Taking-Away Concept)
Unit 3 Addition And Subtraction Within 10 ..... 19
Unit 4 Addition And Subtraction Within 20 ..... 25
Unit 5 Addition and Subtraction Involving Comparison ..... 31
(Comparison Concept I, II, III)
Unit 6 Addition And Subtraction Within 40 ..... 40
Part II The Heuristic Approach
Unit 7 Systematic Listing ..... 47
Unit 8 Look For Pattern I (Numbers) ..... 53
Unit 9 Look For Pattern II (Shapes) ..... 59
Unit 10 Draw A Diagram ..... 65
Unit 11 Restate The Problem ..... 71
Unit 12 Guess And Check ..... 74
Answer Key \& Detailed Solutions ..... 77
Parents' Workshop Support ..... 102
*More challenging problems especially for advanced pupils.

## Example 1A (Part-Whole Model)

Study the model diagram.
What is the missing number?


Step 1 Understand the model (using number bond).


Thinking Mathematically
The model shows two parts. To find the whole, we add the two parts.


## Addition And Subtraction Involving Comparison

## Example 5A (Comparison Concept I)

Solve the problem.
May has 5 pencils.
June has 2 more pencils than May.
How many pencils does June have?

Step 1 Represent the information using model.

Thinking Mathematically
Who has more pencils?
Ans: June
Who gets the longer bar?
Ans: June
To find the value of the longer bar, we add.

Step 2 Write the number sentence.

$$
5+2=7
$$

Step 3 Write the answer statement.

June has $\underline{\underline{7}}$ pencils.

3. There are 7 chicks.
(a) How many different ways can they be in and out of a chicken coop?


| In | Out |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |



They can be in and out of a chicken coop in $\qquad$ different ways.
(b) What do you notice about the answer you get?

