## nderstanding

athematics

## Student's Activity Book for Class P

Name:

Section: $\qquad$

School:


Department of School Education Ministry of Education and Skills Development Royal Government of Bhutan Thimphu

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## INTRODUCTION

This Student's Activity Book for Class PP is to be introduced in the schools from the year 2011, along with the new Mathematics Teacher's Guide for the same class. The term "Activity Book" is simply a change from the term "workbook". They mean the same. Even though we would be more familiar and used to the latter term, the former is a more suitable educational term now.

This Student's Activity Book for Class PP in mathematics is expected to fulfill the long desired need of such a book. This is something that the teachers have been expressing a wish for during the last several years even with the old mathematics curriculum.

The content organization of the Activity Book is reflective of that of the Teacher's Guide, in terms of the Chapter names and their listings. However, you will notice that Chapter 6 (Data Management), as it appears in the Teacher's Guide, is missing in the Activity Book. This is because there really was no appropriate paper-andpencil activity with this particular chapter, at least for this first edition.

The mathematics curriculum emphasizes hands-on, practical, communication and reasoning intensive classroom activities often intended for group or pair-based engagement. It espouses students' capacity including: to discover ideas (and the need to be interested in discovering ideas); to deepen their reasoning skills; to build on their intuition; to arrive at common generalizations; and to create (or recreate) knowledge. The Teacher's Guide will aid the teachers in carrying out this curricular intention. The activities in the Activity Book, albeit paper-and-pencil based, are designed to support the activities suggested in the Teacher's Guide.

Following are some pertinent points related to this activity book and its intended manner of use.

- The activities serve as an extension of and support of the normal classroom activities. They cannot replace the real activities mentioned or suggested in the guide book.
- The activities for each chapter are generally intended for use further along or at the end of teaching the chapter, rather than at the outset.
- The students should normally do and complete the activities during the class hours under the close guidance of the teacher.
- Considering the general students' language proficiency at this level, the teacher would need to explain most of the instructions for the activities, even though they are written in a concise and easy to understand manner.
- The teacher should delve the students into verbal discussions on the activities to extend beyond simply completing the activities, wherever possible and appropriate. Many of the activities have this opportunity inherent in them. For example, once a student has done a matching activity, the teacher can ask why and how he or she did the matching.
- Some of the activities could be done in more than one valid way, depending on how the students reason with the problem. That is why it would be important to ask the students for their reasons, where appropriate.
- The Teacher's Remark(s) space, provided below each activity, is intended to provide a space in which the teacher may record any useful and interesting anecdotes concerning the child and the particular activity. The anecdotal records could also help the teacher in assessing the student's learning. The space could also be used to communicate messages to the parents and caregivers of the child.
- The Reproducible pages at the end of the book would serve as ready material resources for some of the activities in the Teacher's Guide requiring them.
- The Summative Assessment Recording Sheets included at the end of the book are meant for the teacher to record the student's understanding and achievement of the learning goals for each chapter assessed through the means of Interview-based Performance Tasks. The teacher could remove these sheets from the book and maintain them in separate files for the student's assessment records.
- There is no assumption that this Activity Book, beside the Teacher's Guide, would be sufficient as a programme of studies for mathematics in class PP. The teacher is encouraged to go beyond what is presented here to make additional activity sheets for the students, as needed.

The Primary Mathematics Section, REC, would welcome comments and feedback from teachers and other users of this Activity Book that may contribute to its improvement. We wish success and enjoyment in the teaching and learning of mathematics for teachers and students.

Trashi Delek.

Colour the same picture with the same colours.


Teacher's Remark(s):

Teacher's Signature and Date:

## Colour the circles blue, the triangles orange, and the rectangles purple.



Teacher's Remark(s):

Teacher's Signature and Date:

Match two objects (based on shape).


Teacher's Remark(s):

Teacher's Signature and Date:

Match two pictures (based on use).


Teacher's Remark(s):

Teacher's Signature and Date:

The circled object does not belong in the group. Why do you think so? Explain verbally.


Teacher's Remark(s):

Teacher's Signature and Date:

Circle the object which does not belong in the group. Explain your choice verbally.


Teacher's Remark(s):

Teacher's Signature and Date:

Do you see a pattern ? Tick yes $(\checkmark)$ or no (x), and explain verbally.

## Example








Teacher's Remark(s):

## Teacher's Signature and Date:

Do you see a pattern? Tick yes $(\checkmark)$ or no (x), and explain verbally.


Teacher's Remark(s):

Teacher's Signature and Date:

Circle the part that repeats over and over again in each pattern below.

## Example










[^0]
## Teacher's Signature and Date:

Match the childrens ( $\odot$ ) to the chairs ( $\mid$ ) , and tell which is more.

Example

©

There are more $\qquad$ than $\qquad$ .


There are more $\qquad$ than $\qquad$ .


There are more $\qquad$ than $\qquad$ .

Teacher's Remark(s):

Teacher's Signature and Date:

Match the apples (¢) to the bananas ( \&) , and tell which is less.


There are less $\qquad$ than $\qquad$ .


There are less $\qquad$ than $\qquad$ .



There are less $\qquad$ than $\qquad$ .

Teacher's Remark(s):

## Circle the box that is less.

## Example



Teacher's Remark(s):

Teacher's Signature and Date:

Circle the box that is the same.


Teacher's Remark(s):

Teacher's Signature and Date:

## Circle the box that is more.



Teacher's Remark(s):

Teacher's Signature and Date:

Break the set into two smaller sets, so that one set has more items than the other.

## Example



Teacher's Remark(s):

## Break the set into two smaller sets, so that the two smaller sets have the same number of items.

## Example



Teacher's Remark(s):

Teacher's Signature and Date:

## Colour all the sets showing this many - $\bigcirc \bigcirc \bigcirc$



Teacher's Remark(s):

Teacher's Signature and Date:

Chapter 2 Numbers to 5

$$
1 \text { one fish }
$$

## Trace:



## Draw:


$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

## 2 two eyes

## Trace:



## Write:


$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

## 3 three spiders

## Trace:



Write:

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

## 4 <br> four flowers

## Trace:



## Write:

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

[^1]
## 5 five stars

## Trace:



Write:

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

Match the numeral to the pictures.


Teacher's Remark(s):

Teacher's Signature and Date:

Count and write the number below each set.


3 balloons

rectangles

___ puppies

___ triangles

circles

__ bow

fish

Teacher's Remark(s):

Teacher's Signature and Date:

Count, and write the numbers on each side of the separating line for the set. Then write the number for the whole set.

## Example


together: $\quad 3$

together: $\qquad$

together: $\qquad$

together: $\qquad$

together: $\qquad$

together: $\qquad$

together: $\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

Write the number of counters shown on the 5-frame.

## Example


$\qquad$

$\qquad$

$\qquad$

$\qquad$


Teacher's Remark(s):

## Put the counters on the 5-frame by drawing.

Example


00



[^2][^3]Fill the empty sides of the domino cards with dots, so that the number of dots on one side of a card is the same as the number of dots on the side of the card next to it. The first one has been done for you.


[^4]
## Chapter 3 Length

## Circle the curved lines.



Teacher's Remark(s):

[^5]Chapter 3 Length
Look at the pairs of lines, and circle the shorter line in each pair.

$\qquad$
$\qquad$




Teacher's Remark(s):

Teacher's Signature and Date:

## Circle the longer line.

## Example



Teacher's Remark(s):

Teacher's Signature and Date:

Look at the pairs of shapes, and colour the longer shape in each pair.


Teacher's Remark(s):

Teacher's Signature and Date:

Colour the longest rectangle.


Colour the tallest tree.


Colour the shortest bottle.


Teacher's Remark(s):

Teacher's Signature and Date:

Is each of the following a pattern? Tick ( $\sqrt{ }$ ) yes or no (x). For the sequence of lines that is a pattern, circle the part that repeats over and over again.

example




$$
|=\quad| \quad=-\quad \square
$$



[^6]Teacher's Signature and Date:

Colour the sphere green, and the cone yellow.


Colour the rectangular prisms red, and the cylinders blue.


Teacher's Remark(s):

Teacher's Signature and Date:

Match the shapes to the words.


Label the parts of the rectangular prism.


Teacher's Remark(s):

Teacher's Signature and Date:

## Label the parts of the cylinder.



Label the parts of the cone.


Teacher's Remark(s):

Choose the word from (cylinder, cone, rectangular prism, sphere) that describes the shape of a football.

$\qquad$

Choose the word from (cylinder, cone, rectangular prism, sphere) that describes the shape of a book.

$\qquad$

What two shapes can you see with the pencil? Write them

$\qquad$ $\xrightarrow{ }$

[^7]
## Trace the spheres.



Draw 3 spheres.

## Trace the cones.



Draw 2 cones.

Teacher's Remark(s):

## Trace the cylinders.



## Draw 3 cylinders.

Teacher's Remark(s):

Teacher's Signature and Date:

## Trace the rectangular prisms.



## Draw 3 rectangular prisms.

Teacher's Remark(s):

Circle the shapes that will roll.


Circle the shapes that will slide.


Circle the shapes that will only roll.


Circle the shapes that will only slide.


Teacher's Remark(s):

Teacher's Signature and Date:

Circle the part that repeats over and over again in the following shape patterns.

## $\square \square$ <br> 



Teacher's Remark(s):

## Teacher's Signature and Date:

Draw some towers using any of the shapes given here. Tell which shapes you used for the bases of your towers.


Teacher's Remark(s):

Teacher's Signature and Date:

Draw sets with more than 3 , less than 3 , and 3 counters, as indicated.


3

more than 3

less than 3


3

Draw counters on the 5-frames, as indicated.

Example
2

more than 2

less than 2


Teacher's Remark(s):

Teacher's Signature and Date:

## Draw items in the sets, as indicated.



5

more than 5

less than 5


5

Write the numbers from 1 to 5 , as shown.
1
2
3
4
5

Teacher's Remark(s):

Teacher's Signature and Date:

## Trace:

## 6000 six eggs $\bigcirc \bigcirc$



Write:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
Teacher's Remark(s):

Teacher's Signature and Date:

Chapter 5 Numbers to 10

## 7宣里电 seven butter lamps

## Trace：



Write：
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\square$

Teacher＇s Remark（s）：

Teacher＇s Signature and Date：

## Trace:

## $8 \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ eight circles $\bigcirc \bigcirc$



## Write:

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remarks):

Teacher's Signature and Date:

Chapter 5 Numbers to 10

## $9 \triangle \triangle \triangle \triangle \triangle \triangle \Delta \Delta$

## Trace:



## Write:

$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remarks):

Teacher's Signature and Date:

## 10 ten circles $\bigcirc \bigcirc$

## Trace:



Write:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

Match the numbers to the pictures.


Teacher's Remark(s):

Teacher's Signature and Date:

Write the numbers from 1 to 10 as shown.
123
45
6
7
89
10

Write the missing numbers on the number lines.


Teacher's Remark(s):

Teacher's Signature and Date:

Write the numbers below each set.


Teacher's Remark(s):

Teacher's Signature and Date:

Count the dots in each box and write the number under each.


Teacher's Remark(s):

Teacher's Signature and Date:

Write the number of eggs below each bangchung.


Write the number for the counters on the 5 -frames.

$\qquad$


Teacher's Remark(s):

Teacher's Signature and Date:

Match the sets having the same numbers of items.


Write 0 on the number line.


Teacher's Remark(s):

## Teacher's Signature and Date:

Write the missing numbers on the number line.


Write the the numbers from 0 to 10 on the number line.


Trace to make a number line, and write the numbers.


Draw a number line.

Teacher's Remark(s):

Teacher's Signature and Date:

Each line of counters below shows the number 6 by using two colours of counters. Write the number of black and white counters in each line.

Example $\bigcirc 5 \underline{5}$ and $\underline{1}$ is 6 Example


Teacher's Remark(s):

Each group of counters below shows the number 7. The counters in each group are separated by a line. Write the numbers for the counters on each side of the line.

Example


5 and 2 is 7

___and $\qquad$ is 7


4 and 3 is 7

and $\qquad$ is 7

___and $\qquad$ is 7

Teacher's Remark(s):

Teacher's Signature and Date:

Represent the counters on the 10-frames, and write the numbers.

Example

$\qquad$


Teacher's Remark(s):

The 10-frame below shows the number 7. Answer the questions that follow it.


Question: By how much is 7 more than 5?
Answer: $\qquad$
Question: By how much is 7 less than 10 ?
Answer:
The 5 -frame below shows the number 3 . Answer the question that follow it.


Question: By how much is 3 less than 5?
Answer: $\qquad$
Answer the questions that follow the 10-frame below.


Question: What number does the above 10 -frame show?
Answer: $\qquad$
Question: By how much is it less than 10?
Answer: $\qquad$

Teacher's Remark(s):

Teacher's Signature and Date:

You have 8 pencils, as shown below.


Question: How many more do you need to have 10 pencils?
Answer: $\qquad$

You are at number 8 on the number line, as shown.


Question: How much farther do you have to go to get to 10 ?
Answer: $\qquad$
Draw 8 pencils. Separate them into two parts by drawing. How many are in each part?


Teacher's Remark(s):

Teacher's Signature and Date:

Write the numbers that come before the numbers below.

$$
\begin{array}{llll}
3 & -7 & -3 & -10
\end{array}
$$

Write the numbers that come after the numbers below.
$5 \quad 6$
8 $\qquad$ 0 $\qquad$
9 $\qquad$
3 $\qquad$ 7

Join the dots as you move your pencil from 1 to 10. What have you drawn? Colour your drawing.


3 . 6.

8
-10
4.


[^8]Teacher's Signature and Date:

Write about yourself using a number in each sentence.

## About Me

## Example:

I have _ 1 mouth.

I have $\qquad$ nose.

I have $\qquad$ legs.

I have ___ brothers.
I have $\qquad$ sisters.

I have $\qquad$ cats at home.

I am ___ years old.
I have $\qquad$

I have $\qquad$

[^9]Copy the shape patterns. Explain verbally why each is a shape pattern.


Copy here:


Copy here:


Copy here:

Teacher's Remark(s):

Teacher's Signature and Date:

Copy the position patterns. Explain verbally why each is a pattern.


Copy here:


Copy here:


Copy here:

Teacher's Remark(s):

Extend the shape patterns.


Extend the letter patterns.
A B A B A B ...
AABAABAAB...

Extend the number patterns.
12121212 ...
24242424 ...
$355355355 \ldots$

Teacher's Remark(s):

Teacher's Signature and Date:

Translate the various shape patterns into letter codes using A and B. Tell which patterns have the same letter codes.

Example:


Teacher's Remark(s):

Teacher's Signature and Date:

Make a colour pattern by colouring the circles below. Explain verbally how it is a pattern.


Make a shape pattern by using triangles $(\triangle)$ and circles $(\bigcirc)$. Explain verbally how it is a pattern.

Make a shape pattern by drawing any shapes you like. Explain verbally how it is a pattern.

Teacher's Remark(s):

Teacher's Signature and Date:

Which one of the two objects in the box do you think would be heavier? Circle it.


Which one of the two objects in the box do you think would be lighter? Circle it.


Teacher's Remark(s):

Teacher's Signature and Date:

Compare the two things on a pan balance, and write lighter, heavier, or the same under each.


The two boxes on the pan balance are gifts for you. One box contains a teddy bear and the other a watch. Match the teddy bear and the watch to a box each. Explain your matching verbally.


Teacher's Remark(s):

Teacher's Signature and Date:

Order the things in line from the lightest to the heaviest by drawing.


Draw in order here:

Colour the heaviest object green and the lightest object yellow.


Teacher's Remark(s):

Compare the capacities of the pairs of containers, and write holds more, holds less, and holds about the same under each.

## Example



Teacher's Remark(s):

Teacher's Signature and Date:

## Chapter 8 2-D Shapes

Match the shapes to their names.

cylinder

rectangular prism

cone

Match the shapes to their names.


Match the 2-D shapes to the 3-D shapes. Explain your matching verbally.


Teacher's Remark(s):

Teacher's Signature and Date:

Match the names to the parts of the 2-D shapes using lines with an arrow head.

Example
rectangle

triangle

circle


Fill up the table below.

|  | How many edges? | How many corners? |
| :--- | :--- | :--- |
| Rectangle |  |  |

Teacher's Remark(s):

Teacher's Signature and Date:

## Trace the circles.

## Draw 3 circles.



## Trace the triangles.



## Draw 4 triangles.

Trace the rectangles.
$\square$


## Draw 3 rectangles.

Teacher's Remark(s):

Draw different triangles and rectangles by joining the dots.


Colour all the rectangles brown, all the triangles orange, and all the circles purple.


Teacher's Remark(s):

Teacher's Signature and Date:

Draw the shadows on the wall.


Draw pictures of animals, or houses, or anything you like using triangles, rectangles and circles.

Teacher's Remark(s):

Teacher's Signature and Date:

The favourite fruits of some children are shown in the picture graph.


Q: How many columns are there for this graph?
A: There are $\qquad$ columns.

Q: Which fruit is liked by most children?
A: Most children liked $\qquad$ -

Q: Which fruit is liked by only 1 child?
A: $\qquad$ —.

Q: How many children liked apple?
A: $\qquad$ children liked apple.

Q: How many children in all have answered the question?

A: $\qquad$ .

Q: Which of these 3 fruits do you like the most? A: $\qquad$ -.

[^10]Decide on a question to ask your friends. Use the data recording table and the graphing mat to show your results. Your teacher will help you with this activity.



What did you find out about your friends?
How many friends answered your question?

Teacher's Remark(s):

Teacher's Signature and Date:

The column graph shows the results of spinning the spinner below.


Q.1: Which number in the spinner did the pointer land on most of the time?

A: $\qquad$ .
Q.2: How many times did the pointer land on number 1?

A: $\qquad$ .
Q.3: If you spin the spinner, on which number is the pointer most likely to land? Why do you think so?
A: $\qquad$ .

[^11]Write the ordinal numbers.
1st
$2^{\text {nd }}$
$3^{\text {rd }}$
$4^{\text {th }}$
$5^{\text {th }}$
$6^{\text {th }}$

## 7 th

$8^{\text {th }}$
$9^{\text {th }}$

## $10^{\text {th }}$

Teacher's Remark(s):

Teacher's Signature and Date:

Match the ordinal numbers with the runners.


Write the missing ordinal numbers for the shapes below.

$1^{\text {st }}$

$2^{\text {nd }}$


$5^{\text {th }}$

$\qquad$
-

Write the missing ordinal numbers for the shapes below.


Teacher's Remark(s):

Teacher's Signature and Date:

Write the positions for the shapes below. The $5^{\text {th }}$ and the $6^{\text {th }}$ are indicated.


Write the positions for the fruits arranged from left to right. The $1^{\text {st }}$ and the $2^{\text {nd }}$ positions are already given.

$1^{\text {st }}$

$2^{\text {nd }}$

$\qquad$

Q: How many fruits are there?
A: There are $\qquad$ fruits.

Q: Which position is in the middle between $1^{\text {st }}$ and $3^{\text {rd }}$ ?
A: The position in the middle between $1^{\text {st }}$ and $3^{\text {rd }}$ is $\qquad$ .

Q: Which positions are between $6^{\text {th }}$ and $9^{\text {th }}$ ?
A: The positions between $6^{\text {th }}$ and $9^{\text {th }}$ are $\qquad$ .

Teacher's Remark(s):

Teacher's Signature and Date:

Colour a half of each shape.


Is each shape divided into its two halves by the line ------ - ? Write Yes or No under each shape.


Yes



No


Teacher's Remark(s):

Teacher's Signature and Date:

A whole shape is divided into two parts. Write half, or not half under each of the two parts.

Example

half

half

not half

not half

$\qquad$
$\qquad$

$\qquad$

Teacher's Remark(s):

[^12]Numeral cards for 1 to 5


5-frames


Dot cards


## Empty domino cards



Numeral cards for numbers 6 to 10.


10-frames


2-column graphing mat.
Title: $\qquad$


Labels:

3-column graphing mat.
Title: $\qquad$


Labels: $\qquad$

6-column graphing mat.

Title: $\qquad$


Labels: $\qquad$

2-D Shapes for sorting.
l

2-D Shapes


## Ordinal Number cards.



Reproducible 14 (for Chapter 11 Ordinal Numbers and Halves) Insects



2-D Shapes.


2-D Shapes.
(

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 1 SORTING AND PATTERNING

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page $\qquad$ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Task 1 | The student is able to : |
| Present the student with a collection of about 10 objects. <br> Have the student to pick up an object, and say: Tell me <br> everything you can about this object. You could ask other <br> probing questions like: Is it heavy/light? Will it roll? etc | - <br> Describe objects using attributes <br> like colour, shape, material, use, <br> mass, behaviour etc. <br> Have the student sort the objects into groups. Say: Sort the <br> objects into two groups. What is same about the objects <br> in this group? And what is same about the objects in the <br> other group? So what sorting rule did you use? <br> Show an object, and ask the student to which group it would <br> belong. Say: To which group would this belong? Can I <br> put this with this group? Why? Why can't we put this <br> with this group? <br> Sort a collection of objects into <br> groups using a sorting rule. <br> Have the student put the object back together. Ask the <br> student to sort the objects again in a different way than <br> before. <br> Describe the sorting rule. <br> Describe the similarities and <br> differences between object. <br> Describe why an object does or <br> does not belong in a group. <br> Re-sort a collection, or sort a <br> collection in more than one way. |

Comments and Mark:

Teacher's Signature and Date:

Task 2
Present the student with a simple repeating pattern using snap cubes of two colours. Ask: Is this a pattern? Why or how is it a pattern? What is the part that is repeating in this pattern?

Replace one of the cubes with a different object but having the same colour as the cube. Ask: Is this still a pattern? Why?

Provide the student with a collection of either cubes in two different colours, or two different shapes, or two different materials, and ask: Make a simple pattern with these. Why do you think that is a pattern?

The student is able to :

- Identify a simple repeating pattern.
- Identify and describe the repeating part (or the core) of a pttern.
- Recognize that other attributes do not matter when the pattern formed is based on colour.
- Make a simple repeating pattern.
- Describe the pattern made.


## Comments and Mark

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 1

Total CA mark from Chapter 1(Task 1 and Task 2: Mark out of 20): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 2 NUMBERS TO 5

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page __ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :---: | :---: |
| Task 1 <br> Have a collection of 4 small pebbles, 4 relatively larger stones, and the numeral cards for 1 to 5 ready. Present the student with the set of 4 small pebbles. Say: How many pebbles are here? Count the number for me. Show me this many fingers on your hand. Show me the numeral for 4. Write this number here on this paper. <br> Vary the number of pebbles to 5, 3, 2 and 1, and ask similar questions. <br> Now display the set of 4 small pebbles. Then display a set of 4 relatively large stones next to it. Ask: Which is more stone or pebble? How do you know? <br> Remove 1 or 2 stones from the set. Ask: Which is more now - pebbles or stones? If the pebbles is more, which is less/fewer? | The student is able to: <br> - Identify the number of objects in a set. <br> - Count using the counting words in correct order. <br> - Identify the correct numerals for the amount in a set. <br> - Write the numerals from 1 to 5. <br> - Recognize that size does not matter in counting. <br> - Compare sets and use the words more, less, the same. |

## Comments and Mark:

## Task 2

Present the student with a 5 -frame and a small collection of counters in one colour. Have the student show various numbers from 1 to 5 on the 5 -frame, using the counters. Show me 5 by putting counters on this 5 -frame. Show me 3 now. How many more do you need to get to 5 ? So which is more - 3 or 5 ? How do you know? Ask similar questions with other numbers.

Show 4 on the 5 -frame using counters in one colour. Have the student recognize the number. Then, replace two of the counters by different colour counters. Is it still 4? But now we have 2 (blue) and 2 (red), so we can say 4 is 2 and 2. Present different combinations for each of the numbers from 2 to 5 using counters in two colours on the 5-frame, and have the student say the number in terms of its parts each time.

## Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 2

Total CA mark from Chapter 2 (Task 1 and Task 2: Mark out of 20): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Name of the Student: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 3 LENGTH

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page $\qquad$ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Task 1 | The student is able to: |
| Present the student two objects and ask: Which one do <br> you think is longer? Show how you know. If this one is <br> longer, then which is the shorter one? | -Predict/estimate and compare <br> lengths of two objects using terms <br> like longer and shorter. <br> Present the student with a ball of string and scissors. Have <br> the student cut a piece of string that is shorter than, longer <br> than, the same length as a marker pen. Then ask: Put <br> the strings in order from the shortest to the longest (or <br> longest to shortest). <br> Comments and Mark: <br> Teacher's Signature and Date:Create an item that is longer than, <br> shorter than, and the same length <br> as a given one. <br> Order items in order of length. |

## Summary of the Summative Assessment for Chapter 3

Total CA mark from Chapter 3 (Task 1: Mark out of 10): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 4 3-D SHAPES

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page __ for the marking scheme while using Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :---: | :---: |
| Task 1 <br> Present the student a collection of 3-D shapes comprising of 3-D geometric shapes and other common objects like cans, balls, marbles etc. Ask the student to pick up a shape and describe it: Tell anything you can about this shape. Pick up and set aside at least three shapes of the same type (e.g. three rectangular prisms). Ask: How are these shapes the same? What do we call this group of 3-D shapes? Can you find another rectangular prism in the larger group? Repeat for other groups of 3-D shapes. <br> Have the student sort the collection into two groups. I want you to sort the objects into two groups. After that is done, ask: What is same about all the objects that are in this group? <br> Ask the student to build a tower using the 3-D objects. Ask: Why did you use this block at the bottom. What will happen if you use a sphere as your base? Etc. <br> Pick up a 3-D shape, say a cone, and ask: Show me the corner on this shape. How many corners does this shape have? Show me the flat face on this shape. Repeat this for a few other shapes. | The student is able to : <br> - Identify and describe 3-D shapes. <br> - Compare and describe the similarities and difference between two 3-D shapes. <br> - $\quad$ Sort the 3-D shape and describe the sorting rule. <br> - Determine if a 3-D shape will stack or roll. <br> - Identify the faces, corners, and edges on the 3-D shapes. |

## Comments and Mark:

Teacher's Signature and Date:

| $\qquad$Summary of the Summative Assessment for Chapter 4 <br> Total CA mark from Chapter 4 (Task 1: Mark out of 10): <br> Strengths: <br> Areas of Need: <br> Follow up Steps: |
| :--- |

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 5 NUMBERS TO 10

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide on page for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :---: | :---: |
| Task 1 <br> Present the student with a set of 10 objects (e.g. counters). Have a set of numeral cards ready for use. Ask: How many (cubes) are there? Can you count to see how many there are? Take out a few counters, say 2 counters and ask: Now how many do you think are there? Show me eight with a number card. Or, Which card here shows eight? Vary the number of counters by taking out and putting back a few of them, and ask the student to tell the number in the set each time. See how the student determines the number, whether he or she always counts all over again or takes into account the taking out or adding back from the last count. Also ask to show the correct numeral card each time. Ask: Show me a number which is less than (7). Show me another number which is less than (7). Show me the numbers which are more than (7) | The student is able to: <br> - Count sets to 10 using correct order of counting words. <br> - Identify and read numerals to 10. <br> - Compare numbers as more than or less than. |

Comments and Mark:

Teacher's Signature and Date:

## Task 2

Present the student with a 10-frame and a collection of counters. Have the student represent various numbers from 6 to 10 on the 10 -frame, using the counters, and ask them to compare the number to both 5 and 10. For example, Show me number 7 on the 10 -frame. Is 7 bigger than 5? By how much is 7 bigger than 5? How do you know? Is 7 less than 10? By how much is 7 less than 10? How do you know? Ask similar questions with other numbers.

The student is able to:

- Represent number to 10 on 10frame.
- Compare a number from 6 to 9 to both 5 and 10.
- Tell by how much a number of more than 5 or less than 10, and describe how.

Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 5

Total CA mark from Chapter 5 (Task 1 and Task 2: Mark out of 20): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 6 DATA MANAGEMENT

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page $\qquad$ for the marking scheme while using Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :---: | :---: |
| Task 1 <br> Have a collection of two small objects mixed up together (e.g. about 7 snap cubes and 9 pebbles), and a 2-column graphing mat (as provided in the Student Activity Book) ready. <br> Present the student with the collection of the objects, and ask: Do you think there are more cubes or more pebbles? How could we find out? See what the student does to find which is more. <br> Then present the student with the 2-column graphing mat, and ask him or her to use it to make a concrete graph and interpret it. So do we have more pebbles or more cubes? By how much is the pebbles more than the cubes? What should we write for the labels? | The student is able to: <br> - Sort and compare sets. <br> - Count or use one-to-one correspondence to compare sets. <br> - Create a 2-column graph by correctly placing items on the graphing mat. <br> - Describe information from a concrete 2-column graph. <br> - Indentify labels for the column graph. <br> - Identify and read numerals to 10. <br> - Compare numbers as more than or less than. |
| Comments and Mark: |  |
| Teacher's Signature and Date: |  |

## Summary of the Summative Assessment for Chapter 6

Total CA mark from Chapter 6 (Task 1: Mark out of 10): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 7 REPEATING PATTERNS

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page __ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Task 1 | The student is able to : |
| Have a collection of cubes in more than 4 colours, and a <br> collection of two different objects (e.g. pebbles and leaves, or <br> two different shapes) | - <br> Identify a simple repeating <br> pattern. |
| Present the student with an ABB colour pattern using snap <br> cubes. Ask: Is this a pattern? Why or how is it a pattern? <br> What is the part that is repeating in this pattern? Can <br> you extend this pattern using three more cubes? Have <br> the student extend the pattern by making him or here <br> accessible to a collection of cubes in different colours. | Identify and describe the <br> repeating part (or the core) of a <br> pattern. |
| Ask the student to make a similar pattern using cubes of <br> two different colours other than the ones already used in the <br> above pattern. After that have him or her describe how the | Extend a repeating pattern. |
| two patterns are similar. |  |
| Then ask the student to make a similar pattern using pebbles |  |
| Translate a colour pattern into |  |


| Summary of the Summative Assessment for Chapter 7 |
| :--- |
| Total CA mark from Chapter 7(Task 1: Mark out of 10): |
| Strengths: |
| Areas of Need: |
| Follow up Steps: |

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 8 MASS AND CAPACITY

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page __ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Task 1 |  |
| Have two objects which are both about one Kg in mass. The <br> objects could be a plastic bag of snap cubes and a block of <br> wood. Have a common balance too. | The student is able to: <br> - <br> Present the student with the two objects, and ask: Which <br> one do you think is heavier? - the block of wood or the <br> masses of objects using terms <br> like heavier and lighter. |
| lag of cubes? The student could lift both and guess the <br> answer. Then ask: If you say this is heavier, then which <br> one is lighter? How can we compare to know for sure <br> which one is heavier? Have the student use the common <br> balance. So now which one is really heavier? Which one <br> is lighter then? | Compare the masses of two <br> objects using a common balance. |
| Order items in order of mass. |  |
| Present the student with two more objects (e.g. a marker pen <br> and a book). Now I want you to place these 4 things in <br> a line so that they are from the heaviest to the lightest. <br> Which one is the heaviest? Which one of the 4 is the <br> lightest? Which is lighter between the book and the <br> block of wood? |  |

Comments and Mark:

Teacher's Signature and Date:

## Task 2

Present the student with two containers (e.g. a short container with a larger diameter and a taller container with a smaller diameter, so that their capacities are not hugely different). Have something to fill the container (e.g. rice or dry sand ready). Ask: Which container do you think will hold more? Which one will hold less then? How can we find out which one will really hold more? Have the student use the rice to fill the containers. See how he or she does that and compare.

The student is able to:

- Predict/estimate which container holds more/holds less.
- Compare the capacities of containers and use the terms holds more/holds less.


## Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 8

Total CA mark from Chapter 8 (Task 1 and Task 2: Mark out of 20): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 9 2-D SHAPES

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page __ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :---: | :---: |
| Task 1 <br> Present the student with a collection of cutout 2-D shapes of various sizes and shapes of rectangles, triangles and circles, by displaying them on a table. Ask the student to pick up a shape and describe it: Tell anything you can about this shape. You may have to use probing questions (e.g., How many edges does it have?). Pick up and set aside at least three shapes of the same type (e.g. three rectangles). Ask: How are these shapes the same? What do we call this group of 2-D shapes? Can you find another rectangle in the larger group? Repeat similarly for other triangle and circle. <br> Ask the student to sort the shapes: Now I want you to sort the shapes into three groups. What is name for all the shapes in this group? What is the name for the shapes in this group? What is same about all the shapes in this group? <br> Present the student with a cone, a cylinder and a rectangular prism. Pick up a cone, and ask: What is the name of this object? Point to the base of the cone, and ask: What is this shape? Can you see circles on a cylinder? Show it to me? Can you see circles on a rectangular prism? What shapes do you see on a rectangular prism? | The student is able to : <br> - Identify and describe 2-D shapes. <br> - Identify corners and edges on 2-D shapes. <br> - Compare and describe the similarities and difference between two 2-D shapes. <br> - $\quad$ Sort the 2-D shape and describe the sorting rule. <br> - Identify faces of 3-D shapes as 2-D shapes. |

Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 9

Total CA mark from Chapter 9 (Task 1: Mark out of 10): $\qquad$
Overall remarks on the student
Strengths:
Areas of Need:
Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 10 DATA MANAGEMENT AND PROBABILITY

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page $\qquad$ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Interview 1 |  |
| Ask the student to watch while you put a (green) snap cube | The student is able to: |
| and a (white) snap cube in a feely bag. Ask: How many |  |
| cubes did I put in the bag? How many white cubes are |  |
| there? How many green cubes are there? Now if I draw |  |
| out a cube without looking, what colour might it be? | -Describe the outcome of a simple <br> probability experiment. <br> What else could it be? |
| Draw out a cube and show it to the student. Put it back and <br> mix the cubes. Ask: If I draw again, what colour might it <br> be? What else could it be? Again draw out a cube and <br> show it to the student. Could we ever get a (black) cube | Use the language of probability <br> such as never, always, and <br> sometimes. |
| from the bag? Why? Why not? |  |

Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 10

Total CA mark from Chapter 10 (Task 1: Mark out of 10): $\qquad$

Overall remarks on the student
Strengths:
Areas of Need:

Follow up Steps:

## Summative Assessment Recording Sheet (For Class PP)

Student Name: $\qquad$ Roll no.: $\qquad$ Section: $\qquad$

## CHAPTER 11 ORDINAL NUMBERS AND HALVES

Interview-based Performance Task (Please refer the Introduction to the Teacher's Guide for Class PP on page $\qquad$ for the marking scheme while using the Interview-based Performance Task.)

| Task and Interview prompts | Key concepts and skills to look for |
| :--- | :--- |
| Task 1 | The student is able to: |
| Have cutout pictures of the six animals/insects from the <br> Student Activity Book. Have also the cutouts of the ordinal <br> numbers from $1^{\text {st }}$ to $10^{\text {th }}$. | -Identify the position of animals <br> in a line by using the ordinal <br> numbers. <br> Line up the pictures and tell a story that the insects are in <br> a race competition. Which insect is $1^{\text {st? }}$ ? Which insect is <br> $2^{\text {nd }}$ ?...which insect is $6^{\text {th }}$ ? Which insect is last in the line? <br> Ask the student to pick up and show the ordinal numbers <br> from the cutouts. Show me the ordinal number third. <br> Show me the sixth... <br> Identify the symbols for the <br> ordinal numbers. <br> Ask the student to write $1^{\text {st }}\left(2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}\right.$ and $\left.5^{\text {th }}\right)$ on a piece of <br> paper, one at a time.$\quad$Write the ordinal numbers. |

Comments and Mark:

| Task 2 | The student is able to: |
| :---: | :---: |
| Present the student with a rectangular sheet of paper. Show me half of this paper by folding. Can you show the half of this paper by folding it in another way? | - Create half of a shape. <br> - Create half of a shape in more than one way. |
| Fold and tear the paper into two parts, such that the two parts are clearly not equal in size. Ask: Is this half of the paper? Why? | - Identify and describe a half of a shape as one of the two equal parts of it. |
| Present the student with a piece of string and a pair of scissors, and tell: Cut this string into two halves. How do you know that you have cut the string into halves? Or how is this half of the full string? | - Create half of a length. <br> - Describe and show a half of a length as one of the two equal parts of it. |

## Comments and Mark:

Teacher's Signature and Date:

## Summary of the Summative Assessment for Chapter 11

Total CA mark from Chapter 11 (Task 1 and Task 2: Mark out of 20): $\qquad$

Overall remarks on the student
Strengths:

Areas of Need:

Follow up Steps:


[^0]:    Teacher's Remark(s):

[^1]:    Teacher's Signature and Date:

[^2]:    Teacher's Remark(s):

[^3]:    Teacher's Signature and Date:

[^4]:    Teacher's Remark(s):

[^5]:    Teacher's Signature and Date:

[^6]:    Teacher's Remark(s):

[^7]:    Teacher's Remark(s):

[^8]:    Teacher's Remark(s):

[^9]:    Teacher's Remark(s):

[^10]:    Teacher's Remark(s):

[^11]:    Teacher's Remark(s):

[^12]:    Teacher's Signature and Date:

