# NEW NORMAL FUNCTIONAL CURRICULUM Instructional Guide for Special and Inclusive Education Mathematics Class PP - VIII



Royal Education Council Royal Government of Bhutan

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#### Foreword

COVID-19 has suddenly caused unforgiving disruptions in the public education all over the world, and brought about threats of fragmentation due to disparities in accessibility and connectivity in many systems. In Bhutan too, continuity of education and learning has been severely affected as a result of nationwide school closures and due to restrictions and health protocols. The disruptions have led to challenges in many existing patterns and trends in education resulting in a massive shift away from learning and teaching in traditional settings with physical interactions to the maximum in terms of relevancy and efficiency. This has caused a major problem for children living in poverty worldwide, who often rely on the physical settings of their schools for educational materials, guidance, and, sometimes, the only decent meal of the day.

In the new normal education, human interaction and well-being is a priority. Technology, particularly digital technology that enables communication, collaboration and learning across distance, is a formidable tool – not a panacea but a source of innovation and expanded potentials. As we embrace this exceptional opportunity to transform the world, and as we reimagine the organization of our educational institutions and learning environments, we will need to think about where we want to go.

In the post COVID 19 era, we must prioritize the development of the whole person not just academic knowledge. Inspiration for the change can be drawn from the 1996 Delors report, *Learning the treasure within*, in its specification of four pillars of learning as "learning to know", "to do", "to be", and "to live together". Therefore, curricula must be increasingly perceived as an integrated and based on themes and problems that allows learners to learn to live in peace with our common humanity and our common planet. This has the potential in the development of a strong base of knowledge about one's self and about the world and find purpose and be better able to participate in social and political milieu.

The New Normal Curriculum is, not just a mere response to the pandemic, but also a culmination of the curriculum reform work for the last four years by the Royal Education Council. It is an attempt to transform education from the teaching of "what" to learning of "how" and "why" towards empowering learners with the transversal competencies and the 21<sup>st</sup> century skills, and preparing them to be lifelong learners. We are optimistic that this move orients our education process towards nurturing nationally rooted and globally competent citizens.

Wish all our learners and teachers a life enriching experiential teaching and learning.

Tashi Delek

Kinga Dakpa Director General

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#### Introduction

This guide has been developed for teachers teaching Functional Curriculum to the learners with special educational needs in special institute/schools with Special Educational Needs (SEN) Programme across the country for the implementation of the Functional curriculum. As Functional Curriculum for SEN is aimed at equipping the learners with a set of competencies, it is crucial for all the teachers to have the understanding about the intent of the curriculum so that they would be able to implement it as desired.

The functional curriculum for SEN has multiple learning areas. Each learning area has a set of competencies to be acquired and demonstrated by the learners at each stage of learning, which are outlined as Standards, Competencies and Objectives. While guiding teachers on what to teach, these standards, competencies and objectives will also inform the stakeholders about the levels of knowledge and skills expected from the learners at various stages of education. Children with disabilities are unique, and in that lies the hidden and unexplored talents and personal disposition. Where there is a flexible curriculum, all children have a chance to learn and benefit from education, and their achievements can be recognised. One of the alternatives to ensure that all children are educated and developed to their optimum capacities, is the implementation of functional curriculum. It caters to the learners with severe or multiple sensory impairments which hinder a learner from participating in the general curriculum setting.

The sample activities given in the guide are suggestive in nature. Teachers can negotiate to adapt and design their own teaching learning activities or experiences that best suit their learners and their environment. What is non-negotiable is the teaching of the competencies that the learners must acquire at each class before they move on to the next class.

The curriculum has a wide range of knowledge, concepts and skills that the students need to master. There are those which the learners can explore, acquire and practice to master on their own, and there are also more complex ones which need to be taught explicitly and practised consistently to gain a satisfactory level of mastery. Classroom teaching and instructional time should focus on teaching those concepts and skills that the students cannot learn on their own, while encouraging learners to explore some areas to learn and practice on their own.

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The major shift in the curriculum is the teaching and development of skills by the learners. Therefore, the curriculum contents should be used as vehicles to move towards the acquisition of competencies. The competencies for each class are further broken down as objectives that should serve as signposts for teachers to decide what to teach.

Since, competencies are at the heart of curriculum and its implementation, teachers should make conscious choice of the most suitable teaching-learning approaches. And, because the teaching focusses on acquiring skills/competencies, assessment will also be on the acquisition and demonstration of the skills -skills in terms of literacy and numeracy, social, behavioural and affective domains that are demonstrable/measurable. Various assessment approaches and tools may be used for assessment, recording and reporting. Teachers are asked to be consistent to meaningfully assess students and report to stakeholders at various levels. Further, the focus of assessment should be for learning rather than assessment of learning which would happen periodically.

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#### **Curriculum Content**

The Functional Curriculum contents serve as the means for the delivery of education towards achieving the competencies desired at various classes. Cross curricular linkages, various approaches and other co-curricular activities also contribute towards a systematic and comprehensive learning. In this age of advanced communication and information technology, contents are widely available from a number of sources, therefore, the contents of the curriculum have been kept flexible enough so that teachers can select, structure and sequence them to best suit the learners need while maintaining coherence and consistency.

While, teachers may have access to number of materials, it should be kept in mind that the teaching and learning should be focused on achieving the competencies. The teaching-learning materials should be used as means to create a learning environment that is competency-based where the students need to master the skills presented to them. While designing lesson plans and teaching learning activities, teachers need to ensure that the materials are relevant and appropriate for the given task.

The assessment should be competency-based wherein the teachers should assess the learners' mastery of the given tasks. Teachers should use appropriate assessment tools and techniques depending on the nature of the learning activities. The learners should be clearly informed about the success criteria, the areas of assessment and the tools to be used so that they know exactly what tasks are to be performed or expected of them. In the process of the performance, the teacher should continuously provide feedback and, if necessary, modify instructions. Efforts have to be made to ensure that every learner has mastered the skills to realise their potential to the maximum.

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Class PP			
Competency 1: Use numbers in daily	Competency 1: Use numbers in daily life.		
Core Concepts (Tanis (Chanter / Thoma):			
(Topic/Chapter/Theme): Whole Number:			
<ul> <li>Reading numbers</li> </ul>	Read numbers from 1 to 5		
<ul> <li>Writing numbers</li> </ul>	<ul> <li>Write numbers from 1 to 5</li> </ul>		
<ul> <li>Representing numbers</li> </ul>	<ul> <li>Represent numbers from 1 to 5</li> </ul>		
	<ul> <li>Order numbers from1 to 5</li> </ul>		
<ul> <li>Ordering numbers</li> </ul>			
Topic: Reading numbers			
Learning Objectives:			
• Read numbers from 1 to 5			
Pedagogy/Strategies:			
• Place-based Learning:			
Relate number for counting.			
Explore numbers in the immediate environment. For example, on			
clock, money, calendar, gadgets, number plate and bill boards.			
• Blended-Learning:			
Down load apps `1 to 100 numbers 'TALLURI GAMES from google			
play store to learn numbers.			
	<i>ds: Number &amp; Math</i> `from Google		
Play Store to practice read numbers			
Topic: Writing numbers			
Learning Objectives:			
• Write numbers from 1 to 5			
Pedagogy/Strategies:			
<ul> <li>Activity-based Learning:</li> </ul>			
Tracing numbers in the works	sheet.		
<ul> <li>Blended-Learning:</li> </ul>			
Down load apps `1 to 100 null	mbers 'TALLURI GAMES from google		
play store to write numbers.			

Download apps `Preschool Kids: Number & Math` from Google Play Store to write numbers.

#### **Topic:** Representing numbers

#### Learning Objectives:

o Represent numbers from 1 to 5

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

Represent numbers with ten frame, base ten blocks, abacus, counters and beads.

#### Topic: Ordering Number

#### Learning Objectives:

• Order numbers from 1 to 5

## **Pedagogy/Strategies:**

## • Activity-based Learning:

- > Order numbers by joining dots and filling the missing numbers.
- Blended-Learning:
  - Down load apps `1 to 100 numbers 'TALLURI GAMES from google play store to order numbers.
  - Download apps `Preschool Kids: Number & Math` from Google Play Store to order numbers.

#### Assessment:

#### • Anecdotal Record/Checklists:

- Observe children reading, writing, representing and ordering numbers in their daily life.
- Parents take short video clips and share with their respective teachers.
- Teachers follow up with the parents to track children's learning and performances (Video Conference, Worksheet submission, telephone calls, interview etc.)

shape in daily life.		
Core Concepts		
(Topic/chapter/themes)	Learning Objectives	
Measurement:	Relate time of the day with the	
Relating time and activity	daily activities such as rising and	
➢ Length	bed time.	
➢ Size	Identify long and short.	
Quantity	Differentiate big and small.	
Shapes:	Compare more and less.	
Sorting shapes	Sort 3-D shapes into cone,	
	sphere and cylinder groups.	
Topic: Relating time and activity		
Learning Objectives:		
<ul> <li>Relate time of the day with the daily activities such as rising and bed</li> </ul>		
time.		
time.		
time. Pedagogy/Strategies: • Activity-based Learning:		
time. Pedagogy/Strategies: • Activity-based Learning:		
time. Pedagogy/Strategies: ○ Activity-based Learning: > Relate morning for rising ○ Place-based Learning:		
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning:</li> <li>➢ Relate morning for rising</li> <li>○ Place-based Learning:</li> <li>➢ Schedule and follow rising</li> </ul>	time and night for bed time with pictures	
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning:</li> <li>➢ Relate morning for rising</li> <li>○ Place-based Learning:</li> <li>➢ Schedule and follow rising</li> </ul>	time and night for bed time with pictures	
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning:</li> <li>➢ Relate morning for rising</li> <li>○ Place-based Learning:</li> <li>➢ Schedule and follow rising</li> </ul>	time and night for bed time with pictures	
time. Pedagogy/Strategies: Activity-based Learning: Relate morning for rising Place-based Learning: Schedule and follow rising Topic: Length Learning Objectives:	time and night for bed time with pictures	
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning:</li> <li>➢ Relate morning for rising</li> <li>Place-based Learning:</li> <li>➢ Schedule and follow rising</li> </ul> Topic: Length Learning Objectives: <ul> <li>Identify long and short.</li> </ul>	time and night for bed time with pictures	
time.  Pedagogy/Strategies:  Activity-based Learning:  Relate morning for rising  Place-based Learning:  Schedule and follow rising  Topic: Length Learning Objectives:  Identify long and short.  Pedagogy/Strategies:	time and night for bed time with pictures	
time. Pedagogy/Strategies:  Activity-based Learning:  Relate morning for rising  Place-based Learning:  Schedule and follow rising  Topic: Length Learning Objectives:  Identify long and short. Pedagogy/Strategies:  Activity Based Learning:  Make the children to sort	time and night for bed time with pictures g and bed time at home/hostel t long and short objects	
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning: <ul> <li>Relate morning for rising</li> </ul> </li> <li>Place-based Learning: <ul> <li>Schedule and follow rising</li> </ul> </li> <li>Topic: Length <ul> <li>Learning Objectives:</li> <li>Identify long and short.</li> </ul> </li> <li>Pedagogy/Strategies: <ul> <li>Activity Based Learning:</li> <li>Make the children to sort</li> </ul> </li> </ul>	time and night for bed time with pictures	
<ul> <li>time.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning: <ul> <li>Relate morning for rising</li> </ul> </li> <li>Place-based Learning: <ul> <li>Schedule and follow rising</li> </ul> </li> <li>Topic: Length <ul> <li>Learning Objectives:</li> <li>Identify long and short.</li> </ul> </li> <li>Pedagogy/Strategies: <ul> <li>Activity Based Learning:</li> <li>Make the children to sort</li> <li>Make the children colour</li> </ul> </li> </ul>	time and night for bed time with pictures g and bed time at home/hostel t long and short objects r/circle long and short objects	

## Topic: Size

#### Learning Objectives:

• Differentiate big and small.

#### **Pedagogy/Strategies:**

- Activity Based Learning:
  - Make children to sort big and small objects
  - Make children to colour/circle big and small objects

#### **o** Blended Learning:

Use the link to build the concept of big and small. <u>https://www.youtube.com/watch?v=OtigY6XCE7U</u>

#### • Activity-based Learning:

Children sort big and small objects.

#### Topic: Quantity

#### Learning Objectives:

o Compare more and less.

#### **Pedagogy/Strategies:**

- Activity Based Learning:
  - Use concrete objects to compare quantity (Example: number of tables and chairs)

#### Topic: Shape

#### Learning Objectives:

• Sort 3-D shapes into cone, sphere and cylinder groups.

#### **Pedagogy/Strategies:**

- Activity based Learning:
  - Use concrete shapes to sort cone, sphere and cylinder
  - Use pictures to sort cone, sphere and cylinder

#### Assessment:

- **Progress check form/Oral based:** 
  - Allow children to compare and differentiate real objects (size, shape, length, quantity and time).

#### • Anecdotal record:

Interview parents to check whether the child follow rising and bed time appropriately at home/hostel.

Competency 3: Identify currency notes and demonstrate ba	sic shopping
skill.	

Core Concepts (Topic/chapter/themes)	Learning Objectives
Money	To identify one ngultrum and five ngultrum notes.
	To shop items worth of five ngultrums.

#### Topic: Money

#### Learning Objectives:

- o Identify one and five ngultrum notes
- o Demonstrate basic shopping skills

## Pedagogy/Strategies:

- Place-based/Activity-based learning:
  - Identify and sort one ngultrum and five ngultrum notes.
  - Identify items worth one and five ngultrum.
  - Visit nearby shops or role play shopping.

#### Assessment:

- Anecdotal Record:
  - > Observe children identifying, sorting and using money.
  - Parents take short video clips and share with their respective teachers.
  - Teacher follows up with the parents to track children's learning and performances (Video Conference, telephone calls, interview etc.).

Class I		
Competencies 1: Use number in daily life.		
Core concept (Topic/Chapter/Theme):		
<ul> <li>Whole Number</li> <li>Reading Numbers</li> <li>Writing Numbers</li> <li>Representing Numbers</li> </ul>	<ul> <li>Read Numbers from 1 to 10.</li> <li>Write Numbers from 1 to 10.</li> <li>Represent numbers from 1 to 10.</li> <li>10.</li> </ul>	
<ul> <li>Comparing and ordering Numbers</li> </ul>	<ul> <li>Order and compare numbers</li> <li>from 1 to 10.</li> </ul>	
Play Store to read numbers	-	
<ul> <li>Topic: Writing Numbers</li> <li>Learning Objectives: <ul> <li>To write numbers from 1 to 10.</li> </ul> </li> <li>Pedagogy/ Learning Experience: <ul> <li>Activity based Learning:</li> <li>Count and record number of class room objects.</li> </ul> </li> <li>Blended Learning: <ul> <li>Down load apps `1 to 100 numbers 'TALLURI GAMES from google play store to write numbers.</li> </ul> </li> </ul>		

Download apps `Preschool Kids: Number & Math` from Google Play Store to write numbers

#### **Topic:** Representing Numbers

#### Learning Objectives:

• To represent numbers from 1 to 10.

#### Pedagogy/ Learning Experience:

#### • Activity based Learning:

Represent numbers with ten frame, base ten blocks, abacus, counters and beads.

#### **o** Blended Learning:

Down load apps `Maths Master Kids` from the google play store to count objects.

## Topic: Comparing and ordering Numbers

#### Learning Objectives:

• To order and compare numbers from 1 to 10.

#### Pedagogy/ Learning Experience:

- Activity based Learning:
  - > Design game for children to order number in correct sequence.
- **o** Blended Learning:
  - Download apps `Preschool Kids: Number & Math` from Google Play Store to compare and order numbers
  - Down load apps `1 to 100 numbers 'TALLURI GAMES from google play store to write numbers.

#### Assessment:

#### • Anecdotal Record/Checklists:

- Observe children reading, writing, representing and ordering numbers in their daily life.
- Parents take short video clips and share with their respective teachers.
- Teachers follow up with the parents to track children's learning and performances (Video Conference, Worksheet submission, telephone calls, etc.).



<b>Competency 2:</b> Apply the knowledge of time, length, weight, capacity and		
shape in daily life.		
Core concept	Learning Objectives	
(Topic/chapter/themes)		
Measurement:	Sequence timing for breakfast,	
➤ Time	lunch and dinner.	
➤ Length	Compare length using long and	
➤ Weight	short.	
Capacity	Compare weight using heavy and	
	light	
Shape	Identify full and empty.	
	Identify 3-D shapes (Cone and	
	sphere).	

## Topic: Time

#### Learning Objectives:

• Sequence timing for breakfast, lunch and dinner.

## Pedagogy/Learning Experience:

#### Activity based Learning:

- Prepare instructional cards for meal timing
- Provide communication cards for meals

## **o** Place based Learning:

Prepare meal schedule to practice at home /school.

#### Topic: Length

#### Learning Objectives:

• Use the words long and short to compare length of objects.

## Pedagogy/Learning Experience:

#### $\circ~$ Activity based Learning:

Make children to sort objects into sets of long and short.

#### Topic: Weight

#### Learning Objectives:

o Use the words heavy and light to compare the weight of objects

## Pedagogy/Learning Experience:

#### Activity based Learning:

Make them play sea saw to compare weight.

## Topic: Capacity

## Learning Objectives:

• To identify full and empty containers.

## Pedagogy/Learning Experience:

## • Activity based Learning:

 Filling and emptying containers to provide concept of full and empty.

#### Topic: Shape

## Learning Objectives:

o Identify 3-D shapes (Cone and sphere).

## Pedagogy/Learning Experience:

## • Activity based Learning:

Making connection: Cone – ice cream and sphere – ball to name shapes.

#### **o** Blended Learning:

Use the link to teach name of shapes. https://www.youtube.com/watch?v=guNdJ5MtX1A

#### Assessment:

#### • Progress check form/Oral based:

Allow children to compare and differentiate real objects (weight, shape, length, capacity and time).

#### • Anecdotal:

Observe children whether children follow meal schedules at home/school

**Competency 3:** Identify currency notes and demonstrate basic shopping skills.

Core concept (Topic/chapter/themes)	Learning Objectives
> Money	<ul> <li>Recognize five and ten ngultrum notes.</li> <li>Purchase items with an amount up to ten ngultrum.</li> </ul>

## Topic: Money

## Learning Objectives:

 $\circ\;$  Recognize five and ten ngultrum notes.

 $\circ\;$  Purchase items with an amount up to ten ngultrum.

## Pedagogy/Strategies:

- Place-based/Activity-based Learning:
  - > Children identify and sort five ngultrum and ten ngultrum notes.
  - > Children identify items worth of five and ten ngultrum.
  - Children visit shop /Role play shopping.

#### Assessment:

## $\circ~$ Anecdotal Record:

- > Observe children identifying, sorting and using money.
- Parents take short video clips and share with their respective teachers.
- Teachers follow up with the parents to track children's learning and performances (Video Conference, telephone calls, interview etc.).

Competency 4: Use fraction in daily life.	
Core concept (Topic/chapter/themes):	Learning Objectives
Fraction	<ul> <li>identify half</li> <li>create half</li> </ul>

Topic: Fraction

## Learning Objectives:

- o identify half
- o create half

## Pedagogy/Learning Experience:

## • Activity-based Learning:

- Introduce the concept of half by splitting fruits/vegetables into half.
- Hands on practice to split objects into two equal parts and share with their friends.

#### Assessment:

- $\circ~$  Anecdotal Record:
  - > Observe children identifying and creating half.
  - > Teacher or parents observe children using fraction in daily life.

Class II		
<b>Competency 1:</b> Use number one to twenty in daily life.		
Core Concepts (Topic/Chapter/Theme)	Learning Objectives	
Whole Number:	Identify the place value of 2-digit	
Place Value	numbers.	
Reading Numbers	Read numbers from one to twenty.	
Writing Numbers	Write numbers from one to twenty.	
Representing Numbers	Represent 2-digit numbers (one to	
Comparing and Ordering	twenty).	
Numbers.	Order and compare numbers from one to	
	twenty.	
Topic: Place Value		
Learning Objectives:		
<ul> <li>Identify the place value of 2-digit numbers.</li> </ul>		
Pedagogy/Strategies:		
o Activity -based Learning:		

> Represent numbers with ten frame, base ten blocks and abacus.

#### **Topic: Reading**

## Learning Objectives:

- Read numbers from one to twenty.
- Write numbers from one to twenty

#### **Pedagogy/Strategies:**

#### o Blended Learning:

- Download apps `Preschool Kids: Number & Math` from Google Play Store to read numbers
- Down load apps `Domino` from the google play store to play number game.

## o Place-based Learning:

Students count and record number of objects in their environment.

#### **Topic:** Writing Numbers

#### Learning Objectives:

o Write numbers from one to twenty

#### **Pedagogy/Strategies:**

## o Blended-Learning:

- Download apps `Preschool Kids: Number & Math` from Google Play Store to write numbers
- Down load apps `one to 100` from the google play store to write numbers.

## o Place-based Learning:

Students count and record number of objects in their environment.

## **Topic:** Representing Numbers.

## Learning Objectives:

o Represent 2-digit numbers (one to twenty).

## Pedagogy/Strategies:

## o Activity -based Learning:

- > Represent numbers with ten frame, base ten blocks and abacus.
- Represent numbers with currency notes

## Topic: Comparing and Ordering Numbers

#### Learning Objectives:

• Order and compare numbers from one to twenty.

#### Pedagogy/Strategies:

#### o Activity based Learning:

- Provide children with number cards and get them to arrange in ascending o descending order as per the instructions.
- o Blended-Learning:
  - Download apps `Preschool Kids: Number & Math` from Google Play Store to compare and order numbers
  - Download apps "Math Master Kids" from google play store to practice compare and order numbers



Assessment:

#### o Anecdotal Record/Checklists:

Observe children reading, writing, representing and ordering numbers in their daily life.

#### o Portfolios:

Examine work samples of students.

**Competency 2:** Apply the knowledge of time, length, weight, capacity and shape in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Measurement:	Schedule daily activities. For example
> Time	breakfast, school reporting, morning
> Length	assembly, lunch, school closing and
➤ Weight	dinner.
Capacity	Measure length using non-standard units.
	Measure weight using non-standard unit.
	Measure capacity using non-standard unit.
Shape	Recognize 2-D shape
	<ul><li>(Circle and triangle).</li></ul>
	Name 3-D shapes (cone, sphere and cylinder).

#### Topic: Time

## Learning Objectives:

• Schedule daily activities. For example; breakfast, school reporting, morning assembly, lunch, school closing and dinner.

## Pedagogy/Strategies:

- Place-based Learning:
  - Teacher designs schedule for breakfast, school reporting, morning assembly, lunch, school closing and dinner with pictures for students to practice at school/home.
    - 15

Topic: Length

#### **Learning Objectives:**

• Measure length using non-standard units.

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Student measures length of different objects with hand or arm span.

#### Topic: Weight

#### Learning Objectives:

• Measure weight using non-standard unit.

#### **Pedagogy/Strategies:**

- **o** Activity-based Learning:
  - Teacher designs weighing scale for students to measure weights of different objects.

#### Topic: Capacity

#### Learning Objectives:

• Measure capacity using non-standard unit.

#### Pedagogy/Strategies:

- Activity-based Learning:
  - > Children use cups to fill containers of different sizes.

#### Topic: Shape

#### Learning Objectives:

- Recognize 2-D shape (Circle and triangle).
- Name/identify 3-D shapes (cone, sphere and cylinder).

#### **Pedagogy/Strategies:**

- Activity based Learning:
  - Children draw and color shapes
- **o** Blended Learning:
  - Use video link to teach about shapes.

https://www.youtube.com/watch?v=guNdJ5MtX1A



#### Assessment:

#### • Anecdotal Record/Checklists:

- Parents and the teacher observe /video-tap student's daily activity pattern.
- Observe student during measurement activity (length, weight and capacity).
- Conduct quiz to name shapes.

**Competency 3:** Identify currency notes and demonstrate basic shopping skill.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Money	<ul> <li>Identify ten ngultrum and twenty ngultrum notes.</li> </ul>
	<ul> <li>Purchase few items worth of twenty ngultrum.</li> </ul>

## Topic: Money

#### Learning Objectives:

o Identify ten ngultrum and twenty ngultrum notes.

• Shop items worth of twenty ngultrum.

#### Pedagogy/Strategies:

## • Place-based/Activity-based learning:

- Sorting ten ngultrum and twenty ngultrum notes.
- Identifying items worth of ten and twenty ngultrum.
- Carry out basic shopping.

#### Assessment:

#### Anecdotal Record/checklist

- > Observe children identifying, sorting and using money.
- > Parents take short video clips and share with the teacher.
- Teachers follow up with the parents to track children's learning and performances (Video Conference, telephone calls, etc.).

Class III		
<b>Competencies 1:</b> Use number one to hundred in daily task.		
Core Concepts	Learning Objectives	
(Topic/Chapter/Theme):		
Whole Number:	Identify the place value of 2-digit	
Place Value	numbers.	
Reading Numbers	Read numbers from one to	
Writing Numbers	hundred.	
Representing Numbers	Write numbers from one to	
Comparing and Ordering	hundred.	
Numbers.	Represent 2-digit numbers (one to	
	hundred).	
	Order and compare numbers from	
	one to hundred.	
Topic: Place Value		
Learning Objectives:		
$\circ$ Identify the place value of 2-di	git numbers.	
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
Use base ten blocks and	abacus to teach place value.	
Use base ten blocks and ten frame to represent numbers.		
Use worksheet to write numbers.		
Topic: Reading Numbers		
Learning Objectives:		

 $\circ~$  Read numbers from one to hundred.

## Pedagogy/Strategies:

- Activity-based Learning:
  - Use worksheet to read numbers.
  - Prepare number cards/chart to read numbers
- **o** Blended-Learning:
  - Down load apps `One to 100 'from google play store to practice reading numbers.
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Download apps `Preschool Kids: Number & Math` from Google Play Store to read numbers.

#### **Topic:** Writing Numbers

#### Learning Objectives:

• Write numbers from one to hundred.

#### **Pedagogy/Strategies:**

#### **o** Activity-based Learning:

Use worksheet to write numbers.

#### • Blended Learning:

- Down load apps `One to 100 'from google play store to practice writing numbers.
- Download apps `Preschool Kids: Number & Math` from Google Play Store to write numbers

## **Topic:** Representing Numbers

## Learning Objectives:

• Represent 2-digit numbers (one to hundred).

## Pedagogy/Strategies:

- Activity-based Learning:
  - Use base ten blocks, abacus, beads and ten frame to represent numbers.

#### Topic: Comparing and Ordering Numbers

#### Learning Objectives:

• Order and compare numbers from one to hundred.

#### Pedagogy/Strategies:

- Activity-based Learning:
  - Joining number lines by dots/lines
- **o** Blended Learning:
  - Down load apps `One to 100 'from google play store to practice reading writing and ordering numbers.
  - Download apps `Preschool Kids: Number & Math` from Google Play Store to compare and order numbers.



Assessment:

#### • Anecdotal Record/Checklists:

 Observe children reading, writing, representing and ordering numbers in their daily life.

#### • Portfolios:

Examine work samples of students.

**Competency 2:** Apply the knowledge of time, length, weight, capacity and shape in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Measurement:	Follow daily activities schedule.
➤ Time	Show centimetre and meter using
➢ Length	ruler.
➢ Weight	Tell units of measuring weight
Capacity	(gram and kilo gram)
	Estimate capacity in non-standard
	unit.
Shape	Recognize 2-D shape
	<ul><li>(Circle, triangle and rectangle).</li></ul>
	Name 3-D shapes (cone, sphere,
	cylinder and pyramid).
Topic: Time	· ·

#### Topic: Time

Learning Objectives:

o Follow daily schedule.

## Pedagogy/Strategies:

• Place-based Learning:

- > Teacher prepare activity chart to practice daily routine
- Students follow schedule every day

## Topic: Length

#### Learning Objectives:

- o Show centimetre and meter using ruler
- Name devices to measure length.



#### Pedagogy/Strategies:

## • Place-based Learning:

- Display measurement device: Ruler
- > Visit home /shops / to study the measuring equipment.

## Topic: Weight

## Learning Objectives:

- o Tell units of measuring weight (gram and kilo gram)
- Name devices to measure weight.

## Pedagogy/Strategies:

## • Place-based Learning:

- Display measurement devices: beam balance and spring balance.
- > Visit home /shops / to study the measuring equipment.

## Topic: Capacity

## Learning Objectives:

o Estimate capacity in non-standard unit.

## Pedagogy/Strategies:

## • Activity-based Learning:

Students estimate before experimenting the capacity of bottle, bucket, jerry can etc.

## Topic: Shape

## Learning Objectives:

- o Identify 2-D shape (Circle, triangle and rectangle).
- Identify 3-D shapes (cone, sphere, cylinder and pyramid).

## Pedagogy/Strategies:

- Activity based Learning:
  - Use concrete objects/shapes to teach 2-D and 3-D shapes
- Blended Learning:
  - Use the link to teach about shapes.

https://www.youtube.com/watch?v=guNdJ5MtX1A

Assessment:		
<ul> <li>Anecdotal Record/Checklists:</li> </ul>		
Parents and the teacher observe /video-tap student`s daily activity pattern.		
> Observe student during measurement activity (length, weight		
and capacity).		
Conduct quiz to name shapes.		
Competency 3: Apply knowledge	of fraction in daily life.	
Core Concepts	Learning Objectives	
(Topic/chapter/themes)	Learning Objectives	
Fraction	Compare half and quarter.	
Topic: Fraction		
Learning Objectives:		
<ul> <li>Compare half and quarter.</li> </ul>		
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
Teacher design a paper p	ate pizza to compare half and quarter.	
<ul><li>Children colour shapes to</li></ul>	show half and quarter and to compare	
fractions.		
Assessment:		
<ul> <li>Anecdotal Record/Checklist:</li> </ul>		
Observe children during activity.		
Ask questions to check their understanding of fractions		
<b>Competency 4:</b> Apply knowledge of addition and subtraction in daily life.		
Core Concepts	Learning Objectives	
(Topic/chapter/themes)		
Number and Operation	Demonstrate addition using	
Addition	concrete objects	
Subtraction	Demonstrate subtraction using	
	concrete objects	

#### **Topic: Addition**

#### **Learning Objectives:**

o Demonstrate addition using concrete objects

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Use concrete objects and symbols to express addition.
  - > Design worksheets to practice addition.

#### **o** Blended Learning:

- Down load apps `Math games` from the google play store for addition.
- Download apps `Preschool Kids: Number & Math` from Google Play Store to add numbers

## Topic: Subtraction

#### Learning Objectives:

o Demonstrate subtraction using concrete objects

#### Pedagogy/Strategies:

- Activity-based Learning:
  - Use concrete objects with symbols to express subtraction.
  - > Design worksheets to practice subtraction.
- Blended-Learning:
  - Down load apps `Math games` from the google play store for subtraction.
  - Down load apps Download apps `Preschool Kids: Number & Math` from Google Play Store to subtract numbers

#### Assessment:

#### • Anecdotal Record/Checklists:

- Observe whether student apply addition and subtraction knowledge in their daily life.
- Conduct quiz to practice addition and subtraction.
- Portfolio:
  - Collect work samples of students to study about their performance.



**Competency 5:** Identify currency notes and demonstrate basic shopping skill.

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Core Concepts	Learning Objectives
(Topic/chapter/themes)	
> Money	Identify fifty ngultrum and
	hundred ngultrum notes.
	Shop items with an amount up to
	fifty ngultrum.

## Topic: Money

## Learning Objectives:

o Identify fifty ngultrum and hundred ngultrum notes.

o Purchase items with an amount up to fifty ngultrum.

## Pedagogy/Strategies:

- Place-based/Activity-based Learning:
  - Sorting ten, twenty, fifty and hundred notes.
  - > Identifying items worth of ten, twenty, fifty ngultrum.
  - Visit shop to buy few things.

## Assessment:

## $\circ~$ Anecdotal Record:

- > Observe children identifying, sorting and using money.
- > Parents take short video clips and share with the teacher.
- Teachers follow up with the parents to track children's learning and performances (Video Conference, telephone calls, interview etc.).

Class IV		
Competencies 1: Apply knowledge	e of numbers into everyday activities.	
Core Concepts (Topic/Chapter/Theme)	Learning Objectives	
<ul> <li>Whole Number</li> <li>Place value</li> <li>Reading Numbers</li> <li>Writing Numbers</li> <li>Representing Numbers</li> <li>Comparing and ordering Numbers</li> </ul>	<ul> <li>Represent 3-digit number as ones, tens hundreds</li> <li>Read numbers from 100 to 200</li> <li>Write numbers from 100 to 200</li> <li>Represent numbers up to 200 with manipulative (abacus/base ten blocks and beads).</li> <li>Compare and Order numbers (100 to 200).</li> </ul>	
<ul> <li>Learning Objectives:         <ul> <li>Represent 3-digit number as ones, tens and hundreds</li> </ul> </li> <li>Pedagogy/Strategies:         <ul> <li>Activity-based Learning:</li> <li>Teach place value with base ten blocks, place value chart and abacus.</li> </ul> </li> </ul>		
<ul> <li>Topic: Reading Numbers</li> <li>Learning Objectives: <ul> <li>Read numbers from 100 to 200</li> </ul> </li> <li>Pedagogy/Strategies: <ul> <li>Place -based Learning:</li> <li>Reading number on prices tags, gadgets, menu chart.</li> </ul> </li> <li>Activity based Learning: <ul> <li>Fishing game to read numbers: Student fish out number cards from the box to read.</li> </ul> </li> </ul>		
<ul> <li>Blended Learning:</li> <li>Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to read numbers.</li> </ul>		

## Topic: Writing Numbers

#### Learning Objectives:

o Write numbers from 100 to 200

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Use worksheet to write numbers.
- **o** Blended Learning:
  - Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to write numbers.

#### **Topic:** Representing Numbers

## Learning Objectives:

• Represent numbers up to 200 with manipulative (abacus/base ten blocks and beads).

## Pedagogy/Strategies:

• Activity-based Learning:

- Represent numbers with base ten blocks, abacus and beads.
- Place -based Learning:
  - Use currency notes to represent numbers.

## **Topic:** Comparing and ordering Numbers

## Learning Objectives:

• Compare and Order numbers (100 to 200).

**Pedagogy/Strategies:** 

#### • Activity based Learning:

Design number ordering game

#### Assessments:

# Anecdotal Record/Checklists:

- Observe and record task performance to assess knowledge of numbers.
- Interview parents to get information about number practices at home.

• Portfolios:

- Examine work samples of students to assess reading, writing, representing and ordering numbers.
- Study written responses of the students.

**Competency 2:** Apply the knowledge of time, length, weight, capacity and shape in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Measurement:	Tell the time in hours.
> Time	Differentiate week days and
> Length	weekends.
> Weight	Measure length in meter
Capacity	Measure weight in kilogram
> Shape	Measure capacity in litre
	Describe Cone using basic attributes
	(face, apex, base).

## Topic: Time

#### Learning objectives:

- o Tell the time in hours.
- o Differentiate week days and weekends.

# Pedagogy/Strategies:

- Activity-based Learning:
  - Hands on practice to show time.

#### Topic: Length

# Learning objectives:

o Measure length in meter

## Pedagogy/Strategies:

- Activity-based Learning:
  - ➤ Hands on practice to measure length.
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#### Topic: Weight

#### Learning objectives:

o Measure weight in kilogram

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - > Hands on practice to weigh objects using spring balance.
  - Incorporate measurement knowledge for chores and shopping.

#### Topic: Capacity

#### Learning objectives:

o Measure capacity in litre

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - > Hands on practice to measure capacity of different containers.
  - Incorporate measurement knowledge for chores and shopping.

#### Topic: Shape

#### Learning objectives:

• Describe Cone using basic attributes (face, apex, base).

## Pedagogy/Strategies:

- Activity based Learning:
  - Use concrete shapes to show face, apex and base
- Blended –Learning:
  - Use link 1 from the resources to teach the attributes of shapes <u>https://youtu.be/3-QwWFkz5hw</u>

#### Assessments:

#### • Anecdotal Record/Checklists:

- Observe students oral response while naming days of the week and note in the record book.
- > Observe and record task performance to assess measuring skills.
- Interview parents to get information about application of measuring skills at home.
- > Observe students oral response while describing the shapes.



Competency 3: Apply knowledge of	
Core Concepts	Learning Objectives
(Topic/chapter/themes)	
> Fraction	Add halves to make whole.
Topic: Fraction	
Learning Objectives:	
<ul> <li>Add halves to make whole.</li> </ul>	
Pedagogy/Strategies:	
<ul> <li>Activity-based Learning:</li> </ul>	
Hands on practice to add	two halves.
<ul> <li>Blended-Learning:</li> </ul>	
Use video link 1 from the	resources to teach about cone
https://youtu.be/tc6SZLp	<u>5AM</u>
Assessments:	
• Anecdotal Record/Checklists:	
• Anecuolai Record/Checklists:	
•	dding halves to create whole.
•	dding halves to create whole.
<ul> <li>Observe students while a</li> </ul>	-
<ul> <li>Observe students while a</li> <li>Portfolio:</li> <li>Study individual or group</li> </ul>	-
<ul> <li>Observe students while a</li> <li>Portfolio:</li> <li>Study individual or group</li> </ul>	written responses. currency notes and learn the purchase
<ul> <li>&gt; Observe students while a</li> <li>• Portfolio:</li> <li>&gt; Study individual or group</li> </ul> Competency 4: Identify different	written responses. currency notes and learn the purchase
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> </ul>	written responses. currency notes and learn the purchase
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts</li> </ul>	written responses. currency notes and learn the purchase
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> </ul>	written responses. currency notes and learn the purchase Learning Objectives
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> </ul>	written responses. currency notes and learn the purchase Learning Objectives > Purchase different items with an
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred</li> </ul>
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> <li>&gt; Money</li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred</li> </ul>
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> <li>&gt; Money</li> <li>Topic: Money</li> <li>Learning Objectives:</li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred</li> </ul>
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> <li>&gt; Money</li> <li>Topic: Money</li> <li>Learning Objectives:</li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred ngultrum.</li> </ul>
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> <li>&gt; Money</li> <li>Topic: Money</li> <li>Learning Objectives:</li> <li>&gt; Purchase different items with a</li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred ngultrum.</li> <li>n amount up to one hundred ngultrum.</li> </ul>
<ul> <li>&gt; Observe students while a</li> <li>&gt; Portfolio:</li> <li>&gt; Study individual or group</li> <li>Competency 4: Identify different value of currency notes up to 100.</li> <li>Core Concepts (Topic/chapter/themes)</li> <li>&gt; Money</li> <li>Topic: Money</li> <li>Learning Objectives:         <ul> <li>Purchase different items with a Pedagogy/Strategies:</li> </ul> </li> </ul>	<ul> <li>written responses.</li> <li>currency notes and learn the purchase</li> <li>Learning Objectives</li> <li>Purchase different items with an amount up to one hundred ngultrum.</li> <li>n amount up to one hundred ngultrum.</li> </ul>

#### Assessments:

# • Anecdotal Record/Checklists:

- > Observe and record student's physical response while shopping.
- > Interview parents to get information about field practices.

Competency 5: Apply knowledge	of addition and subtraction in daily life.
Core Concepts	Learning Objectives
(Topic/chapter/themes)	Learning Objectives
Whole Number Computation	Add 2-digit numbers without
Addition	regrouping
Subtraction	Subtract 2-digit numbers without
	regrouping.
Topic: Addition	
Learning Objectives:	
<ul> <li>Add 2-digit numbers without re</li> </ul>	egrouping
Pedagogy/Strategies:	
<ul> <li>Activity-based Learning:</li> </ul>	
Use hundred chart to add	2-digit numbers.
Add using place value tab	le, base ten blocks and assistive devices.
<ul> <li>Blended Learning:</li> </ul>	
Down load apps "additio	n and subtraction" from the google play
store.	
Use link 1 to teach addition	on and subtraction
https://youtu.be/UfLnshv	<u>vQCK</u>
Download apps "Math Kic	<i>ls</i> " by RV App Studios from the google play
store for addition.	
Topic: Subtraction	
Learning Objectives:	
<ul> <li>Subtract 2-digit numbers witho</li> </ul>	ut regrouping.
Pedagogy/Strategies:	
<ul> <li>Activity-based Learning:</li> </ul>	
Use hundred charts to su	btract 2-digit numbers.

Subtract using place value table, base ten blocks and assistive devices.

#### **o** Blended Learning:

- Down load apps "addition and subtraction" from the google play store.
- Use link 1 to teach addition and subtraction <u>https://youtu.be/UfLnshwQCK</u>
- Download apps "Math kids `` by RV App Studios from the google play store for subtraction.

#### Assessments:

- Anecdotal Record/Checklists:
  - Observe children while performing addition or subtraction and note in the record book.
  - Interview someone with the knowledge of student's mastery of addition and subtraction skills.

## $\circ~$ Portfolio:

File individual or group written responses.

Class V	
Competencies 1: Apply know	edge of numbers into everyday activities.
Core Concepts	Learning Objectives
(Topic/Chapter/Theme)	Learning Objectives
Whole Number	Represent 3-digit number as ones,
Place value	tens, hundreds
Reading Numbers	Read numbers from 200 to 500
Writing Numbers	Write numbers from 200 to 500
Representing Numbers	Represent numbers up to 500 with
<ul> <li>Comparing and ordering</li> <li>3-digit numbers.</li> </ul>	manipulative (abacus/base ten blocks and beads)
	<ul> <li>Compare and Order numbers from</li> </ul>
	200 to 500.
Topic: Place value	
Learning Objectives:	
<ul> <li>Represent 3-digit number a</li> </ul>	s ones, tens, hundreds
Pedagogy/Strategies:	
• Activity-based Learning:	
Demonstrate place va	lue using base ten blocks, place value
chart and abacus.	
Use base ten blocks, I	peads and abacus to represent numbers.
Topic: Reading Numbers	
Learning Objectives:	
• Read numbers from 200 to	500
Pedagogy/Strategies:	
• Activity-based Learning:	
Use beads for countir	-
Use worksheet to wri	
	e to read numbers. Children fish out number
cards from the box ar	
_	Ordering Game to arrange numbers in
ascending or descend	ing order.

#### • Place Based Learning:

- Use currency notes to represent numbers.
- Read numbers on price tag, vehicle number plate and sign boards.

#### **o** Blended Learning:

Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to read numbers.

#### **Topic:** Writing Numbers

#### Learning Objectives:

• Write numbers from 200 to 500

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Use worksheet to write numbers.
- **o** Blended Learning:
  - Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to write numbers.

#### **Topic:** Representing Numbers

#### Learning Objectives:

 Represent numbers up to 500 with manipulative (abacus/base ten blocks and beads)

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

Use base ten blocks, beads and abacus to represent numbers.

#### Topic: Comparing and ordering 3-digit numbers.

#### Learning Objectives:

o Compare and Order numbers from 200 to 500.

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Design a Number Ordering Game

#### Assessments:

• Anecdotal Record/Checklists:

Observe and record t	ask performance to assess knowledge of
numbers.	
Interview parents to	get information about number practices at
home.	
• Portfolios:	
Examine work samples of the sampl	of students to assess reading, writing,
representing and ordering	ng numbers.
Study written responses	of the students.
Competency 2: Apply the know	wledge of time, length, weight, capacity
and shape in daily life.	
Core Concepts	Learning Objectives
(Topic/chapter/themes)	Learning Objectives
Measurement:	Fell the time in hours and half hours.
≻ Time	Tell the days of a week in sequence.
➤ Length	Measure length in centimetre.
➤ Weight	Measure weight in 500gram/ half
Capacity	kilogram.
Shape	Measure capacity in litres.
	Describe cube using the basic
	attributes, (faces, edges and vertices.)
Topic: Time	
Learning Objectives:	
$\circ$ Tell the time in hours and h	alf hours.
$\circ$ Tell the days of a week in sec.	equence.
Pedagogy/Learning Experience	:e:
<ul> <li>Activity-based Learning:</li> </ul>	
Make use of the clock	to show time.
Display days of a wee	k in the classroom for children to read.
<ul> <li>Blended Learning</li> </ul>	
Down load the app (k	(ids: Numbers) to practice time

## Topic: Length

#### Learning Objectives:

• Measure length in centimetre.

#### Pedagogy/Learning Experience:

## • Activity-based Learning:

> Hands on practice to measure length using classroom objects.

## Topic: Weight

## Learning Objectives:

• Measure weight in 500 gram/ half kilogram.

# Pedagogy/Learning Experience:

## • Activity-based Learning:

- Hands on practice to measure weight of classroom objects (book, crayon, eraser etc.).
- > Incorporate measurement of knowledge in chores and shopping.

## Topic: Capacity

## Learning Objectives:

• Measure capacity in litres.

## Pedagogy/Learning Experience:

- Activity-based Learning:
  - > Hands on practice to measure capacity of different containers.
  - > Incorporate measurement knowledge in chores and shopping.

#### Topic: Shape

# Learning Objectives:

Describe cube using the basic attributes, (faces, edges and vertices.)
 Pedagogy/Learning Experience:

- Blended Learning:
  - Use link 1 from the resource to teach attributes of cube <u>https://youtu.be/3-QwWFkz5hw</u>



Assessments:		
<ul> <li>Anecdotal Record/Checklis</li> </ul>	sts:	
<ul> <li>Observe students ora</li> </ul>	I response while naming days of the week	
and note in the recor	d book.	
Observe and record t	Observe and record task performance to assess measuring skills.	
Interview parents to get information about application of		
measuring skills at ho	ome.	
<ul> <li>Observe students ora</li> </ul>	I response while describing the shape.	
Competency 3: Apply knowle	dge of fraction in daily life.	
Core Concepts	Learning Objectives	
(Topic/chapter/themes)	Learning Objectives	
Fraction	To add halves	
Adding fraction	To add quarters.	
Topic: Fraction		
Learning Objectives:		
<ul> <li>To add halves</li> </ul>		
<ul> <li>To add quarters.</li> </ul>		
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
Demonstrate with rel	levant fruit that can be cut into halves and	
quarters.		
Add quarters.		
Hands on practice to	add two quarters to make half and four	
quarters to make who	ole.	
<ul> <li>Blended Learning:</li> </ul>		
Use video link 1from	resources to teach fraction	
https://youtu.be/tc6	SZLp5AM	
Assessments:		
<ul> <li>Anecdotal Record/Checklis</li> </ul>	sts:	
Observe students wh	ile adding quarters to create whole.	
• Portfolio:		
<ul> <li>File individual or grou</li> </ul>	ıp written responses.	

Competency 4: Identify diffe	rent currency notes and demonstrate basic
shopping skills.	
Core Concepts (Topic/chapter/themes)	Learning Objectives
> Money	Identify different currency notes.
	Purchase some items with an amount
	of two hundred ngultrum.
Topic: Money	
Learning Objectives:	
o Identify different currency	notes.
o Purchase some items with	an amount of two hundred ngultrum.
Pedagogy/Strategies:	
• Place-based/Activity-base	ed Learning:
Children sort Bhutan	nese currency notes of different
denominations.	
Identifying costs of c	lifferent items up to Nu. 200
Visit shop for basic s	hopping.
Assessments:	
<ul> <li>Anecdotal Record/Checklin</li> </ul>	ist:
Observe and record	student's physical response while shopping.
Interview parents to	get information about field practices.
	edge of addition and subtraction in daily
life.	
Core Concepts (Topic/chapter/themes)	Learning Objectives
Whole Number	Add 2-digit with regrouping
computation	Subtract 2digit with regrouping.
Addition	
Subtraction	
Topic: Addition	
Learning Objectives:	
o Add 2-digit with regroupin	g

## Pedagogy/Strategies:

## • Activity-based Learning:

- Use Hundred chart to add 2-digit numbers.
- Use place value table, base ten blocks and assistive devices to add 2-digit numbers.

# **o** Blended Learning:

- Use the link 1 to teach 2 digit addition <u>https://youtu.be/UfLnshwQCK</u>
- Download apps (*Math Kids*) by RV App Studios from the google play store for addition.

# Topic: Subtraction

# Learning Objectives:

• Subtract 2digit with regrouping.

# Pedagogy/Strategies:

- Activity-based Learning:
  - Use Hundred chart to subtract 2-digit numbers.
  - Use place value table, base ten blocks and assistive devices to subtract 2-digit numbers.

## • Blended Learning:

- Use the link 1 to teach 2 digit subtraction <u>https://youtu.be/UfLnshwQCK</u>
- Download apps (*Math Kids*) by RV App Studios from google play store for subtraction.

#### Assessment:

# • Anecdotal Record/Checklists:

- Observe children while performing addition or subtraction and note in the record book.
- Interview someone with the knowledge of student's mastery of addition and subtraction skills.

# • Portfolio:

> File individual or group written responses.

Class VI	
<b>Competencies 1:</b> Apply knowledge of numbers in everyday activities.	
Core Concepts	Learning Objectives
(Topic/Chapter/Theme):	Learning Objectives
Whole Number	Represent 3-digit number as ones,
Place value	tens, hundreds
Reading Numbers	Read numbers from 500 to 900
Writing Numbers	Write numbers from 500 to 900
Representing Numbers	Represent numbers up to 900
Comparing and ordering	with manipulative ( abacus/base
numbers	ten blocks and beads)
	Compare and Order 3-digit
	numbers.

# Topic: Place value

Learning Objectives:

o Represent 3-digit number as ones, tens, hundreds

# Pedagogy/Strategies:

• Activity-based Learning:

Demonstrate place value using base ten blocks, place value chart and abacus.

# Topic: Reading Numbers

#### Learning Objectives:

o Read numbers from 500 to 900

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Design number chart
  - Design and play number fishing game.
- Place Based Learning:
  - Read numbers on price tag, vehicle number plate and sign boards.
- **o** Blended Learning:
  - Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to read numbers.
    - 43

## Topic: Writing Numbers

#### Learning Objectives:

• Write numbers from 500 to 900

#### **Pedagogy/Strategies:**

- Activity-based Learning:
  - Prepare worksheets to practice numbers.
  - > Count objects in tents and write numbers.

#### **o** Blended Learning:

Download "learn 1 to 1000 numbers" Hiegames.com from the google app store to write numbers.

#### **Topic:** Representing Numbers

#### Learning Objectives:

 Represent numbers up to 900 with manipulative (abacus/base ten blocks and beads)

**Pedagogy/Strategies:** 

**o** Activity-based Learning:

- Use base ten blocks, beads and abacus to represent numbers.
- Use beads for counting

## • Place Based Learning:

Get students to represent numbers with currency notes.

#### Topic: Compare and order numbers

#### Learning Objectives:

• Compare and Order 3-digit numbers.

#### Pedagogy/Strategies:

- Activity-based Learning:
  - > Arrange number cards in correct sequence.
  - Design a number ordering game in which students arrange numbers in correct sequence.

#### Assessment:

- Anecdotal Record/Checklists:
  - Observe and record task performance to assess knowledge of numbers.



Interview parents to get information about number practices at home.

#### • Portfolios:

- Examine work samples of students to assess reading, writing, representing and ordering numbers.
- Study written responses of the students.

**Competency 2:** Apply the knowledge of time, length, weight, capacity and shape in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Measurement:	Tell the time in half and quarter
➢ Time	hours.
➢ Length	Write the days of a week.
➢ Weight	Report activities of the week.
Capacity	Compare metre and centimetre.
	Compare kilogram and gram.
	Compare litres and millilitres.
Shape	Compare cone and cube using basic
	attributes (face, base, apex and
	vertex).

# Topic: Time

# Learning Objectives:

- o Tell the time in half and quarter hours.
- o Report activities of the week.

# Pedagogy/Learning Experience:

# • Activity-based Learning:

- Use stop clock to show time,
- > Draw few activities of the week on the chart and display.
- Get students to record their weekly activities.

# **o** Blended Learning:

Use the link to teach days of the week <u>https://youtu.be/MLs90HSAqYc</u>

#### Topic: Length

#### Learning Objectives:

o Compare metre and centimetre.

#### Pedagogy/Learning Experience:

- Activity-based Learning:
  - Compare one metre and one centimetre sticks.
  - Get the students to compare three metres and three centimeters strings.
  - Use meter ruler to show hundred centimetre makes one meter.

#### Topic: Weight

#### Learning Objectives:

• Compare kilogram and gram.

## Pedagogy/Learning Experience:

- Activity-based Learning:
  - Display objects/pictures that are weighed in kilogram and gram.
  - Visit science lab or shops to study about different weights.
  - > Apply knowledge of measurements in chores and shopping.

## Topic: Capacity

#### Learning Objectives:

o Compare litres and millilitres.

#### Pedagogy/Learning Experience:

#### • Activity-based Learning:

- Display containers that holds different amount.
- Fill different size containers to compare capacity.

#### Topic: Shape

#### Learning Objectives:

 Compare cone and cube using basic attributes (face, base, apex and vertex).

# Pedagogy/Learning Experience:

# • Activity-based Learning:

▶ Use concrete shapes to show face, base, apex and vertex.

> Compare cone and cube based on face, base, apex and vertex.

## **o** Blended Learning:

- Use link 1 from the resource to teach days of the week.
- Use the link to teach about shapes <u>https://youtu.be/3-QwWFkz5hw</u>

## Assessment:

- Anecdotal Record/Checklists:
  - Observe students oral response while writing days of the week and note in the record book.
  - Observe and record task performance to assess measuring skills.
  - > Observe students oral response while describing the shape.

#### • Portfolio:

Examine student's written responses to assess the knowledge of time.

**Competency 3:** Apply knowledge of fraction in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Fraction	Add halves to make a whole.
Addition	Add quarters to make a whole.

Topic: Fraction

## Learning Objectives:

- Add halves to make a whole.
- Add quarters to make a whole.

#### Pedagogy/Strategies:

• Activity-based Learning:

- Add halves and quarters by colouring shapes.
- Combine two halves and four quarters to make a whole.

#### • Blended Learning:

Use the link to add fractions <u>https://youtu.be/kBw-Of6Z jg</u>

#### Assessments:

- Anecdotal Record/Checklists:
  - Observe students while adding fraction.

• **Portfolio:** 

File individual or group written responses.

**Competency 4:** Identify different currency notes and demonstrate basic shopping skills.

Core Concepts (Topic/chapter/themes)	Learning Objectives
> Money	Identify different currency notes.
	Purchase some items with an
	amount of three hundred ngultrum.

# Topic: Money

## Learning Objectives :

- o Identify different currency notes.
- Purchase some items with an amount of three hundred ngultrum.

## Pedagogy/Strategies:

- Place-based/Activity-based Learning:
  - Sorting currency notes into different denominations.
  - Get the students to identify items to be purchased within 300 ngultrum.
  - Visit shop and get the students to list items that could be bought within 300 ngultrum.
  - Ingrate the knowledge of measurement in shopping. For example a litre of oil cost forty-five ngultrum.

#### Assessment:

# • Anecdotal Record/Checklists:

- Observe and record student's physical response while shopping.
- Interview parents to get information about field practices.

	oncepts	
	chapter/themes)	Learning Objectives
Whole	Number computation	Add 2-digit and 3-digit numbers.
≻ Add	ition	Subtract 2-digit from 3-digit
> Subt	traction	numbers
Topic:	Addition	
Learnir	ng Objectives :	
o Add	2-digit and 3-digit numbers.	
Pedago	ogy/Strategies:	
o Acti	vity-based Learning:	
$\triangleright$	Use hundred - chart to add	d numbers.
$\triangleright$	Add using place value table	e, base ten blocks and assistive devices
o Bler	nded Learning	
$\triangleright$	Use the link to teach addit	ion <u>https://youtu.be/UfLnshwQCK</u>
$\triangleright$	Download apps (Math Kids	s) by RV App Studios from the google
	play store for addition.	
Topic:	Subtraction	
Learnir	ng Objectives: tract 2-digit from 3-digit num	nbers
Learnir O Subt Pedago	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies:	nbers
Learnir O Subt Pedago O Acti	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning:	
Learnir o Subt Pedago o Acti >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o	chart.
Learnir O Subt Pedago O Acti	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o Subtract using place value	
Learnir Subt Pedago Acti >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o Subtract using place value devices.	chart. table, base ten blocks and assistive
Learnir Subt Pedago Acti > >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o Subtract using place value devices. Use subtraction for money	chart. table, base ten blocks and assistive
Learnir Subt Pedago Acti > >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o Subtract using place value devices. Use subtraction for money nded Learning:	chart. table, base ten blocks and assistive transition in the shop.
Learnir Subt Pedago Acti > >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – o Subtract using place value devices. Use subtraction for money ided Learning: Use the link to teach subtr	chart. table, base ten blocks and assistive r transition in the shop. action
Learnir Subt Pedago Acti > > S Bler >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – of Subtract using place value devices. Use subtraction for money nded Learning: Use the link to teach subtraction https://youtu.be/UfLnshw	chart. table, base ten blocks and assistive r transition in the shop. action <u>QCK</u>
Learnir Subt Pedago Acti > >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – of Subtract using place value devices. Use subtraction for money nded Learning: Use the link to teach subtra https://youtu.be/UfLnshw Download apps ( <i>Math Kids</i> )	chart. table, base ten blocks and assistive r transition in the shop. action
Learnir Subt Pedago Acti > > S Bler >	ng Objectives: tract 2-digit from 3-digit num ogy/Strategies: vity-based Learning: Subtract using hundred – of Subtract using place value devices. Use subtraction for money nded Learning: Use the link to teach subtraction https://youtu.be/UfLnshw	chart. table, base ten blocks and assistive r transition in the shop. action <u>QCK</u>

#### Assessment:

## • Anecdotal Record/Checklists:

- Observe children while performing addition or subtraction and note in the record book.
- Interview someone with the knowledge of student's mastery of addition and subtraction skills.

# $\circ~$ Portfolio:

> File individual or group written responses.

Class VII		
Competencies 1: Apply knowledge c	of numbers in everyday activities.	
Core Concepts	Learning Objectives	
(Topic/Chapter/Theme):		
Place value	Identify the place value of 4-digit	
Reading Numbers.	numbers.	
Writing Numbers	Read 4-digit numbers.	
Representing Numbers	Write 4- digit numbers.	
Comparing and ordering 4-digit	Represent 4-digit number with	
numbers.	base ten blocks and abacus.	
	Compare and order 4-digit	
	numbers	
Topic: Place value		
Learning Objectives:		
$\circ~$ Identify the place value of 4-digit	numbers.	
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
Demonstrate place value using base ten blocks, place value chart		
and abacus.		
Write place value using expanded form.		
• Blended Learning:		
Use the link <u>https://youtu.be/L2kNtEr_Yng</u>		
Topic: Reading Numbers		
Learning Objectives:		
<ul> <li>Read 4-digit numbers.</li> </ul>		
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
	ds from the box, get students to read it	
and award point for reading	-	
<ul> <li>Place Based Learning:</li> </ul>		
<ul> <li>Read numbers on price tag, vehicle number plate and sign boards.</li> </ul>		

#### **o** Blended Learning:

Use the link <u>https://youtu.be/L2kNtEr Yng</u>

#### **Topic:** Writing Numbers

#### Learning Objectives:

o Write 4- digit numbers.

#### Pedagogy/Strategies:

#### **o** Activity-based Learning:

- Design worksheet to write numbers.
- Count base ten blocks and write numbers

#### **o** Blended Learning:

Use the link <u>https://youtu.be/L2kNtEr Yng</u>

## **Topic:** Representing Numbers

#### Learning Objectives:

- Represent 4-digit number with base ten blocks and abacus.
- o Use currency notes to represent numbers

## Pedagogy/Strategies:

• Activity-based Learning:

Represent numbers with base ten blocks, abacus and currency notes.

## **Topic:** Comparing and ordering 4-digit numbers

#### Learning Objectives:

• Compare and order 4-digit numbers

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

Number ordering game: Design a game to order numbers in ascending or descending order.

#### Assessment:

- Anecdotal Record/Checklists:
  - > Observe children while writing, counting, and ordering numbers.
  - Interview parents to get information about number practices in daily life.



## • Portfolios:

Document work samples of students such as worksheets to assess numbers.

**Competency 2:** Apply the knowledge of time, length, weight, capacity and shape in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
Measurement:	Name twelve months in sequence.
➤ Time	Identify important occasion in
➤ Length	different months.
➤ Weight	Estimate and measure length in
Capacity	centimetre.
➤ Shape	Estimate and measure weight in
	kilogram.
	Estimate and measure capacity in
	litters.
	Describe Pyramid and prism

## Topic: Time

## Learning Objectives:

- Name twelve months in sequence.
- o Identify important occasion in different months.

#### Pedagogy/Learning Experience:

#### • Activity-based Learning:

- Write the months of the year and display in the classroom reflecting birthdays of the students.
- Get students to write names of students born in different months.

## • Blended Learning:

Use links to teach about months. <u>https://www.youtube.com/watch?v=O\_P1mtJ90m4</u> <u>https://www.youtube.com/watch?v=Cgr4joFfSFw</u>

### Topic: Length

#### Learning Objectives:

o Estimate and measure length in centimetre.

#### Pedagogy/Learning Experience:

- Activity-based Learning:
  - > Measure and record the length of classroom objects.

## Topic: Weight

#### Learning Objectives:

• Measure the weight in kilogram.

## Pedagogy/Learning Experience:

## • Place based-Learning:

> Weigh grains/vegetables in kilograms and record.

## Topic: Capacity

# Learning Objectives:

- o Estimate the capacity of different containers.
- o Measure the capacity of different containers in litre.

# Pedagogy/Learning Experience:

## • Place based-Learning:

- > Let children estimate the capacity of different containers.
- Make them measure the capacity of different containers in liters.

#### Topic: Shape

#### Learning Objectives:

• Describe pyramid and prism

#### Pedagogy/Learning Experience:

#### **o** Activity based Learning:

- Use concrete objects to teach pyramid and prism.
- **o** Blended Learning:
  - Use the link to teach about shapes. <u>https://youtu.be/CYVmmTaqIPU</u>

Assessment:		
<ul> <li>Anecdotal Record/Checklists:</li> </ul>		
Observe students oral response while naming and describing months.		
<ul> <li>Observe and record during task performance to assess measuring skills.</li> </ul>		
Interview parents to get info		
measuring skills.		
•	onse while describing the shapes.	
	<b>C</b>	
Competency 3: Apply knowledge of	fraction in daily life.	
Core Concepts		
(Topic/chapter/themes)	Learning Objectives	
Fraction	Add fractions with same	
	denominators.	
Topic: Fraction	·	
Learning Objectives:		
<ul> <li>Add fractions with same denominators</li> </ul>		
Pedagogy/Strategies:		
<ul> <li>Activity-based Learning:</li> </ul>		
Add fractions by colouring shapes.		
Teacher designs jigsaw puzzle to add fractions.		
Use the picture of pizza / cake to make connection with real life		
situation.		
<ul> <li>Blended Learning:</li> </ul>		
Use the link to teach addition of fractions.		
https://youtu.be/rLCheqJh_rQ		
Assessment:		
<ul> <li>Anecdotal Record/Checklists:</li> </ul>		
<ul> <li>Observe students while performing addition note in the record</li> </ul>		
book.		
○ Portfolio:		
File individual or group written responses.		

**Competency 4:** Identify currency notes and demonstrate basic shopping skills.

Core Concepts (Topic/chapter/themes)	Learning Objectives
> Money	<ul> <li>Prepare list of items to be purchased with three hundred ngultrum.</li> <li>Purchase different items with an</li> </ul>
	amount of three hundred ngultrum.

# Topic: Money

# Learning Objectives:

- Prepare list of items to be purchased with three hundred ngultrum.
- $\circ~$  Purchase different items with an amount of three hundred ngultrum.

# Pedagogy/Strategies:

- **o** Place-based/Activity-based Learning:
  - Make students collect dummy notes/pictures of different currency and stick in a book.
  - > Visit shops to make a shopping list within three hundred ngultrum.

#### Assessment:

# • Anecdotal Record/Checklists:

- > Observe and record student's physical response while shopping.
- Interview parents to get information about field practices.

Competency 5: Interpret information in Pictograph.	
Core Concepts (Topic/chapter/themes)	Learning Objectives
Pictograph	Collect and represent information in pictograph.
Topic: Pictograph	
Learning Objectives:	
<ul> <li>Collect and represent information in pictograph.</li> </ul>	

#### Pedagogy/Strategies:

#### • Activity /place based-Learning:

- Students collect raw data from the field.
- Stack concrete objects to represent data.
- Represent data with pictures.

#### Assessment:

- Anecdotal Record:
  - > Observe children during the activity and note in the record book.
- $\circ~$  Portfolio:
  - File individual or group written responses.

<b>Competency 6:</b> Apply knowledge of addition and subtraction in daily life
--

Core Concepts (Topic/chapter/themes)	Learning Objectives
> Addition	Add 2-digit numbers with 3-digit
Subtraction	numbers using assistive devices.
	Subtract 3-digit by 2-digit
	numbers with assistive devices.

## Topic: Addition

## Learning Objectives:

• Add 2-digit numbers with 3-digit numbers using assistive devices.

#### **Pedagogy/Strategies:**

# • Activity-based Learning:

Use place value table, base ten blocks and assistive devices to add 2-digit numbers.

#### • Place based Learning :

- Calculate the total cost of items using calculator/apps.
- Calculate the total length of two things.
- > Calculate the total capacity of two or more containers.

#### • Blended Learning:

Down load apps `Math Games` from the google play store for addition.

Down load apps` Addition and subtraction` from the google play store for addition.

## Topic: Subtraction

## Learning Objectives:

o Subtract 3-digit by 2-digit numbers using assistive devices.

## Pedagogy/Strategies:

## • Activity-based Learning:

- Use place value table, base ten blocks and assistive devices to subtract 2-digit numbers.
- Carry out transaction of money to in real life situation to practice subtraction.

## • Place based Learning :

➢ Get children to buy things and determine balance.

# • Blended Learning:

- Down load apps `Math Games` from the google play store for subtraction
- Down load apps` Calculator` from the google play store for subtraction.

## Assessment:

# • Anecdotal Record/Checklists:

- Observe children while performing addition or subtraction and note in the record book.
- Interview someone with the knowledge of student's mastery of addition and subtraction skills.

#### • Portfolio:

File individual or group written responses.

Class VIII		
Competency 1: Apply knowledge of	numbers in everyday activities.	
Core Concepts (Topic/Chapter/Theme):	Learning Objectives	
<ul> <li>Place value</li> <li>Reading Numbers.</li> <li>Writing Numbers</li> <li>Representing Numbers</li> <li>Comparing and ordering 4-digit numbers.</li> </ul>	<ul> <li>Identify the place value of 4-digit numbers.</li> <li>Read 4-digit numbers.</li> <li>Write 4- digit numbers.</li> <li>Represent 4-digit number with base ten blocks and abacus.</li> <li>Compare and order 4-digit numbers</li> </ul>	
<ul> <li>Learning Objectives:</li> <li>Identify the place value of 4-digit numbers.</li> <li>Pedagogy/Strategies:</li> <li>Activity-based Learning:</li> <li>Demonstrate place value using base ten blocks, place value chart and abacus.</li> <li>Write place value using expanded form.</li> <li>Blended Learning:</li> <li>Use the link <u>https://youtu.be/L2kNtEr_Yng</u></li> </ul>		
<ul> <li>Topic: Reading Numbers</li> <li>Learning Objectives: <ul> <li>Read 4-digit numbers.</li> </ul> </li> <li>Pedagogy/Strategies: <ul> <li>Activity-based Learning:</li> <li>Game: Teacher design number fishing game. Students fish out number cards from the box, to read it.</li> </ul> </li> <li>Place Based Learning: <ul> <li>Read numbers on price tag, vehicle number plate and sign boards.</li> </ul> </li> </ul>		

#### • Blended Learning:

Use the link <u>https://youtu.be/L2kNtEr Yng</u>

#### **Topic:** Writing Numbers

#### Learning Objectives:

o Write 4- digit numbers.

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

- Use worksheet to write numbers.
- Count and write numbers (use base ten blocks).

#### • Blended Learning:

Use the link <u>https://youtu.be/L2kNtEr Yng</u>

#### **Topic:** Representing Numbers

#### Learning Objectives:

• Represent 4-digit number with base ten blocks and abacus.

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

Represent numbers with base ten blocks, abacus and currency notes.

#### Topic: Comparing and ordering 4-digit numbers

#### Learning Objectives:

• Compare and order 4-digit numbers using symbols </ >/=.

#### **Pedagogy/Strategies:**

#### • Activity-based Learning:

- Provide children with set of number cards and get them to arrange in ascending /descending order.
- **o** Blended-Learning:
  - Use the link <u>https://youtu.be/kISKH3uwSsY</u>

#### Assessment:

#### • Anecdotal Record/Checklists:

> Observe children while writing, counting, and ordering numbers.

Interview parents to get information about number practices in		
daily life.		
• Portfolios:		
·	Document work samples of students such as worksheets to assess	
numbers.		
	of time, length, weight, capacity and	
shape in daily life.		
Core Concepts	Learning Objectives	
(Topic/chapter/themes)		
> Time	Name four seasons.	
> Length	Identify months for each season	
> Weight	Describe activities of different	
> Capacity	season	
> Shape	Estimate length in millimetre.	
	Measure length in millimetre.	
	Estimate weight in grams.	
	Measure weight in grams.	
	Estimate capacity in millilitres.	
	Measure capacity in millilitres.	
	Compare prism and pyramid.	
Topic: Time		
Learning Objectives:		
<ul> <li>Name four seasons.</li> </ul>		
<ul> <li>Identify months for each season</li> </ul>		
<ul> <li>Describe activities of different seasons</li> </ul>		
Pedagogy/Learning Experience:		
<ul> <li>Activity-based Learning:</li> </ul>		
Teach season names with pictures.		
Display the season chart with months and pictures of appropriate		
activities.		
• Blended Learning:		
Use the link to teach seasons.		
https://www.youtube.com/watch?v=IdZnasVZquQ		

#### Topic: Length

#### Learning Objectives:

- o Estimate the length in millimetre.
- o Measure the length in millimetre

## Pedagogy/Learning Experience:

- Activity-based Learning:
  - Hands on practice to estimate the length of objects.
  - > Hands on practice to measure the length of objects.

#### Topic: Weight

#### **Learning Objectives:**

- Estimate weight in grams.
- Measure weight in grams.

## Pedagogy/Learning Experience:

- Place based-Learning:
  - Collect and display items of different weights.
  - Use spring balance to measure and record weights after estimation.
  - Visit science laboratory to learn measurement.

#### Topic: Capacity

#### Learning Objectives:

- o Estimate capacity in millilitres.
- Measure capacity in millilitres.

#### Pedagogy/Learning Experience:

#### • Place based-Learning:

- > Display containers holding different amount of water.
- Get children to estimate the capacity of different containers.
- Get children measure the capacity of different containers.

#### Topic: Shape

#### Learning Objectives:

• Compare prism and pyramid.

# Pedagogy/Learning Experience:

## • Activity –based Learning:

> Use concrete shapes to compare prisms and pyramids.

# **o** Blended Learning:

> Use the link to teach about prism and pyramids.

https://youtu.be/NWiOD8DMzP0

# Assessment:

# • Anecdotal Record/Checklists:

- > Observe students oral response while describing about seasons.
- Observe and record during task performance to assess measuring skills.
- Interview parents to get information about application of measuring skills.
- > Observe students oral response while describing the shapes.

# **Competency 3:** Apply knowledge of fraction in daily life.

Core Concepts (Topic/chapter/themes)	Learning Objectives
➤ Fraction	Add fractions with same
	denominators

# Topic: Fraction

# Learning Objectives:

o Add fractions with same denominators

**Pedagogy/Strategies:** 

- Activity-based Learning:
  - Create a situation (example: wall painting) to connect addition of fractions in real life.
  - Design a jigsaw puzzle to add fractions.
  - Use the picture of pizza / cake to make connection in real life situation.

# • Blended Learning:

Use the video link to add fraction. <u>http://youtu.be.rLCheqJh\_rQ</u>

Assessment:

#### • Anecdotal Record/Checklists:

Observe students while performing addition and note in the record book.

## • Portfolio:

> File individual or group written responses.

**Competency 4:** Identify currency notes and demonstrate basic shopping skills.

Core Concepts (Topic/chapter/themes)	Learning Objectives
> Money	Purchase items with an amount of
	four hundred ngultrum.

#### Topic: Money

#### Learning Objectives:

• Purchase items with an amount of four hundred ngultrum.

## Pedagogy/Learning Experience:

## • Place-based/Activity-based Learning:

- Children sort Bhutanese currency notes into different denominations.
- > Identify items of different costs within four hundred ngultrum.
- Visit shop for basic shopping.
- Integrate the knowledge of measurement in shopping. For example a kilogram of sugar costs fifty ngultrum

#### Assessment:

# Anecdotal Record/checklist:

- > Observe and record student's physical response while shopping.
- Interview parents to get information about field practices.

Competency 5: Interpret information in bar graph.	
Core Concepts	Learning Objectives
(Topic/chapter/themes)	
➢ Bar graph	Collect raw data from the field.



	Represent information in bar		
	graph.		
Topic: Bar graph	8.00		
Learning Objectives:			
<ul> <li>Collect raw data from the field.</li> </ul>			
<ul> <li>Represent information in bar graph.</li> </ul>			
Pedagogy/Learning Experience:			
<ul> <li>Activity Based Learning/Placed Based:</li> </ul>			
<ul> <li>Hands on practice to collect raw data from the field.</li> </ul>			
<ul> <li>Represent the data with cubes.</li> </ul>			
Draw and colour bar graph. Assessment:			
<ul> <li>Assessment:</li> <li>Anecdotal Record:</li> <li>Observe children during the activity and note in the record book.</li> <li>Portfolio:</li> <li>File individual or group written responses.</li> </ul>			
		<b>Competency 6:</b> Apply knowledge of a	addition and subtraction in daily life.
		<b>Competency 6:</b> Apply knowledge of a Core Concepts (Topic/chapter/themes)	addition and subtraction in daily life. Learning Objectives
Core Concepts			
Core Concepts (Topic/chapter/themes)	Learning Objectives		
Core Concepts (Topic/chapter/themes) > Addition	<ul><li>Learning Objectives</li><li>➢ Add 3-digit numbers using</li></ul>		
Core Concepts (Topic/chapter/themes) > Addition	<ul> <li>Learning Objectives</li> <li>➢ Add 3-digit numbers using assistive device.</li> </ul>		
Core Concepts (Topic/chapter/themes) ➤ Addition ➤ Subtraction	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>➢ Subtract 3-digit numbers using</li> </ul>		
Core Concepts (Topic/chapter/themes) ➤ Addition ➤ Subtraction Topic: Addition	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>➢ Subtract 3-digit numbers using</li> </ul>		
Core Concepts (Topic/chapter/themes) ➤ Addition ➤ Subtraction Topic: Addition Learning Objectives:	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>Subtract 3-digit numbers using assistive device.</li> </ul>		
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Core Concepts (Topic/chapter/themes) ➤ Addition ➤ Subtraction Topic: Addition Learning Objectives: ○ Add 3-digit numbers using assistiv Pedagogy/Strategies: ○ Activity-based Learning:	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>Subtract 3-digit numbers using assistive device.</li> <li>e devices.</li> </ul>		
Core Concepts (Topic/chapter/themes) > Addition > Subtraction Topic: Addition Learning Objectives: • Add 3-digit numbers using assistiv Pedagogy/Strategies: • Activity-based Learning: > Use place value table, base to	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>Subtract 3-digit numbers using assistive device.</li> </ul>		
Core Concepts (Topic/chapter/themes) > Addition > Subtraction Topic: Addition Learning Objectives: • Add 3-digit numbers using assistiv Pedagogy/Strategies: • Activity-based Learning: > Use place value table, base to 3-digit numbers.	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>Subtract 3-digit numbers using assistive device.</li> <li>e devices.</li> </ul>		
Core Concepts (Topic/chapter/themes) > Addition > Subtraction Topic: Addition Learning Objectives: • Add 3-digit numbers using assistiv Pedagogy/Strategies: • Activity-based Learning: > Use place value table, base to	<ul> <li>Learning Objectives</li> <li>Add 3-digit numbers using assistive device.</li> <li>Subtract 3-digit numbers using assistive device.</li> <li>e devices.</li> </ul>		

- Calculate the total length of two things.
- Calculate the total capacity of two or more containers.

### **o** Blended Learning:

- Down load apps `Math Games` from the google play store for addition.
- Down load apps` Addition and subtraction` from the google play store for addition.

## **Topic:** Subtraction

## Learning Objectives:

o Subtract 3-digit numbers with assistive devices.

# Pedagogy/Strategies:

- Activity-based Learning:
  - Use place value table, base ten blocks and assistive devices to subtract 2-digit numbers.
  - Share money to link subtraction in real life situation.
- Place based Learning:
  - Get children to buy things and determine balance.
- **o** Blended Learning:
  - Down load apps `Math Games` from the google play store for subtraction
  - Down load apps` Calculator` from the google play store for subtraction.

#### Assessment:

# • Anecdotal Record/Checklists:

- Observe children while performing addition or subtraction and note in the record book.
- Interview someone with the knowledge of student's mastery of addition and subtraction skills.

#### • Portfolio:

File individual or group written responses.

