

Grade PP2

Transdisciplinary Theme

Sharing the Planet

Central Idea

People make choices to support the sustainability of the Earth's resources.

Lines of Inquiry

- Earth's finite and infinite resources
- Impact of people's choices on the environment
- The balance between meeting human needs and the use of limited resources.




Key concepts: Function, Change, Responsibility



Resource: A source of supply, support, or aid, especially one that can be readily drawn upon when needed

Finite Resources: A resource that cannot be readily replaced by natural means at a quick enough pace to keep up with consumption. An example is carbon-based fossil fuel.

Infinite Resources: A resource that can be readily replaced by natural means at a quick enough pace keep up with consumption

The choices people make in their daily life and the impact on the environment:

Choices made by us	Impact of choices on the environment	
Infrastructure development	<ul style="list-style-type: none">cutting down the trees to build wide roads, deforestation for construction activities	
Usage of natural resources	<ul style="list-style-type: none">mining activities, using fossil fuels, water, air and sunlight for daily needs is polluting the environment around us.	
Population	<ul style="list-style-type: none">To meet the needs of growing population we are going for deforestation to grow food, food adulteration and usage fertilizers and pesticides for more produce	

Globalization	<ul style="list-style-type: none"> The availability of nonlocal food lead to drastic increase in food miles. 
Lifestyle changes (using electric appliances, migrations etc)	<ul style="list-style-type: none"> Lifestyle changes lead to global warming and increase in carbon footage in the environment. 

The balance between meeting human needs and use of limited resources:

Sustainability: Avoidance of the depletion of natural resources in order to maintain an ecological balance. "the pursuit of global environmental sustainability"

Children brainstormed about bringing the balance between the usage of resources and human needs by following different strategies:

Waste management

- segregation of waste from the source to reduce the landfill.
- Using the different colour coded dustbins.
- Making compost and reusing, recycling the waste.



Following 4 R's in their daily life – Refuse, Reduce, Reuse and Recycle.

Refuse:

- Saying no to plastic
- Think before buying anything

Reduce:

- Using less water like not taking shower bath, turning off taps, electric appliances when not in use.
- Going by walk for shorter distances, using bicycle and carpooling to save fossil fuels.

Reuse:

- Donating the things (books, clothes and other useful goods)
- Carrying water bottle when going outside.
- Avoid usage of disposable things
- Using cloth bags in the place shopping bags.

Recycle:

- Plastic, metal, paper and glass other items which can be cleaned and make new things out of it to keep our Earth clean.



Transdisciplinary Math:

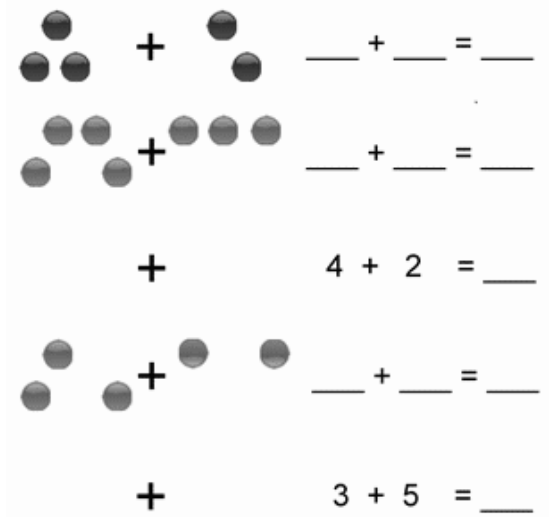
Addition: The process of calculating the total of two or more numbers or amounts. It is also the mathematical process of putting things together. The plus sign "+" means that numbers are added together. It helps children master the relationships between numbers and understand how quantities relate to one another.

For **example**, $3 + 2$ apples — meaning three apples and two other apples — which is the same as five apples, since $3 + 2 = 5$.

Children learnt to do the addition and writing addition statements by using different strategies follows as

- number line
- picture addition
- tally marks
- mental math.

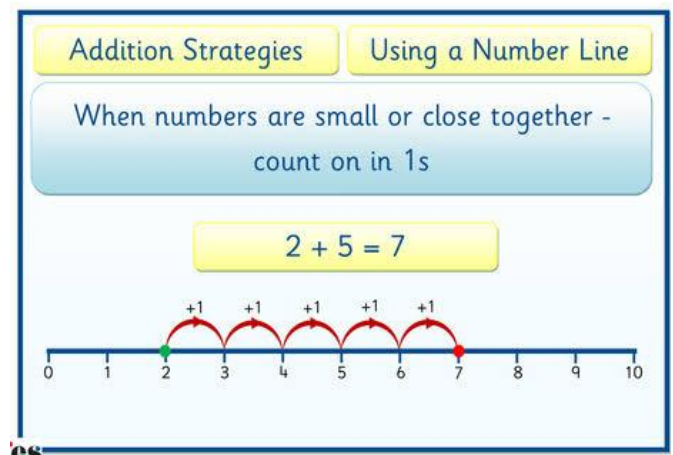
Count/draw the circles, write/read the numbers and find the sum.



Addition using number line:

Number line: In basic mathematics, a **number line** is a picture of a graduated straight **line** that serves as abstraction for real **numbers**, denoted by every point of a **number line** is assumed to correspond to a real **number**, and every real **number** to a point.

Children took the help of number line and jumping on it in forward direction to add two given numbers. They practiced making the statement for the given scenarios.



Subtraction:

The process or skill of taking one number or amount away from another. In mathematics it means you are taking something away from a group or number of things. When you **subtract**, what is left in the group becomes less. The "-" means one number is taken away from other.

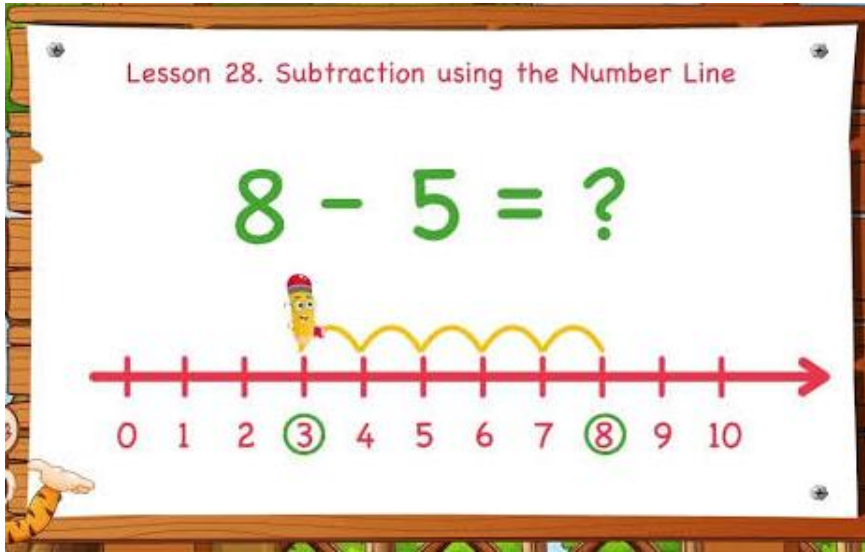
An example of a **subtraction** problem is the following: $5 - 3 = 2$ means 3 apples taken away from 5 then 2 apples are left over.

Children learnt to do the Subtraction and writing subtraction statements by using different strategies follows as

- number line
- picture addition
- tally marks
- mental math.

Subtraction using number line:

Children jumped backwards to solve the given subtraction the two given numbers. They constructed the subtraction statement to understand the meaning of it.



Mental math using addition and subtraction:

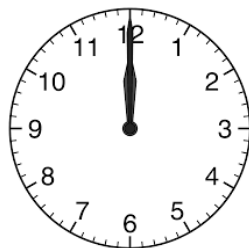
Mental calculation comprises arithmetical calculations using only the human brain, with no help from any supplies (such as pencil and paper) or devices such as a calculator. **Mental** calculation often involves the use of specific techniques devised for specific types of problems.

For Eg: solving the given puzzle using their brain. Following the instructions and rules of addition, subtraction helps them to achieve it.

5	+	6	=	---
+		-		+
---	-	3	=	7
=		=		=
15	+	---	=	18

Time: A point of time as measured in hours and minutes past midnight or noon.










Children learnt time is one of the important resource. They learnt to read an hour clock.



Children learnt to write their digital form the clock is showing i.e. 12:00










NAME: _____ GRADE: PP2 DATE: ____/____/2019 Time taken _____

Task: Read the clock and write in the digital time.

		
:	:	:
		
:	:	:
		
:	:	:

NAME: _____ GRADE: PP2 DATE: ____/____/2019 Time taken _____

Task: Draw the hour hand.

		
9:00	5:00	2:00
		
4:00	11:00	8:00
		
7:00	1:00	10:00

Money: Money is an economic unit that functions as a generally recognized medium of exchange for transactional purposes in an economy.

Children learnt about money and they came to know about it as it plays vital role in their life as it is an important resource.

In this unit they learnt about Indian currency and identifying different denominations of it.

NAME: _____ GRADE: PP2 DATE: ____/____/2019 Time taken _____




Task: Write in the boxes how many coins of each denomination are there.



5			
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NAME: _____ GRADE: PP2 DATE: ____/____/2019 Time taken _____

Task: Count the coins and tell the amount in each box.

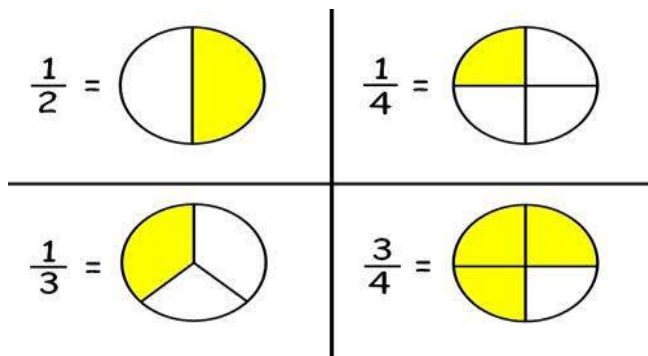

Rupees

Rupees

Rupees

Rupees

Fractions: A numerical quantity that is not a whole number, a small or tiny part, amount, or proportion of something. Children learnt different terminology used while representing the different fractions.

For example: Whole (1), Half ($\frac{1}{2}$) and Quarter ($\frac{1}{4}$).

Children identified the given fraction and wrote their numerical form for the given picture.



NAME: _____ GRADE: PP2 _____ DATE: __/__/2019 Time taken: _____

Task: Circle the correct fraction from the given choices.

1.		$\frac{1}{2}$	$\frac{2}{3}$	$\frac{2}{4}$
2.		$\frac{1}{3}$	$\frac{3}{4}$	$\frac{1}{2}$
3.		$\frac{2}{4}$	$\frac{3}{5}$	$\frac{1}{4}$
4.		$\frac{2}{3}$	$\frac{1}{3}$	$\frac{1}{2}$

NAME: _____ GRADE: PP2 _____ DATE: __/__/2019 Time taken: _____

Task: What is the fraction of the shaded part?

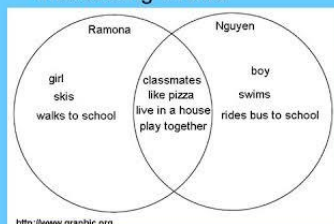
	$\frac{1}{4}$		—
	—		—
	—		—
	—		—
	—		—

Venn Diagram: a diagram representing mathematical or logical sets pictorially as circles or closed curves within an enclosing rectangle (the universal set), common elements of the sets being represented by intersections of the circles.

Children explored and used this concept while comparing the dirty river and clean river on the Earth. They compared two rivers and identified the common things and differences in the given scenarios.

Venn Diagram

Venn Diagrams are tools used to describe and compare attributes and characteristics of items, to look at how they are alike and different. It is drawn with at least two intersecting circles.



<http://www.graphic.org>

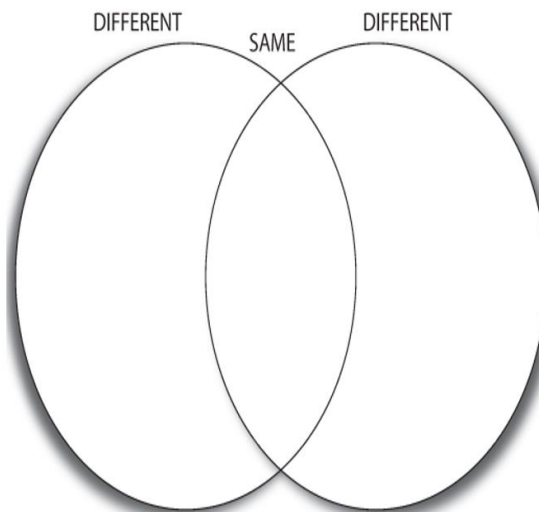


NAME: _____ GRADE: PP2 SEC: _____ DATE: _____ TIME TAKEN: _____

Subject- UOI

Topic- Reflection

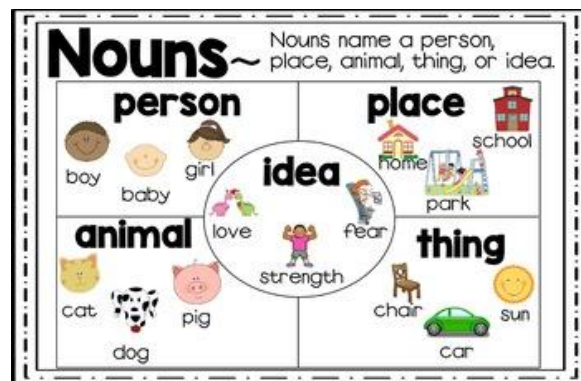
Task- Compare and contrast the features for the video on cleanest and dirtiest river.



Transdisciplinary Language:

Noun: A word used to identify any of a class of people, places, or things or to name a particular one of these. The simple definition is: a person, place or thing.

Examples: person: man, woman, teacher, John, Mary.



Children learnt about the noun while naming the different resources around them in the environment. They brainstormed further, came up some or more than one in number and came up with singular and plural forms of noun.

They also practiced the concept using worksheets to gain more understanding of the concept.

For Example:

Task: Identify and circle the picture that names an animal.



Orange



Fox



Home



Den



Bear

NAME: _____ GRADE: PP2 _____ DATE: _____ Time taken _____

Task: Read the nouns in the box. Write the nouns into the correct categories.

bag	school	nurse	boy	cow
girl				
man	catfish	hospital	rabbit	bottle
rat				
duck	lady	phone	class	

1.Place	2. Person
3.Thing	4.Animal

NAME: _____ GRADE: PP2 _____

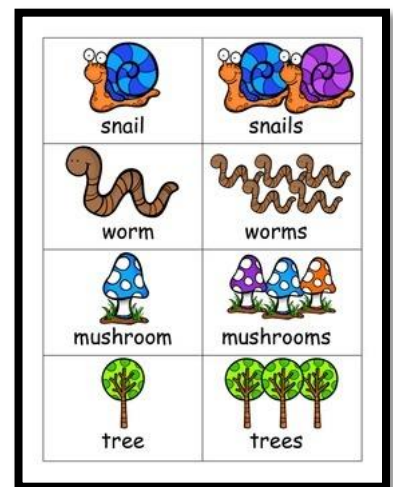
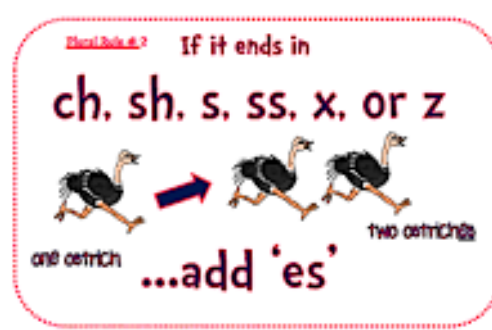
DATE: ____/____/2019 Time taken _____

Subject-TD Language Nouns (Naming words)

Task: Draw to represent each of the following.

A person	A place
An animal	A thing

Singular and plural: A **singular** noun names one person, place, thing, or idea, while a **plural** noun names more than one person, place, thing, or idea. **Singular** nouns ending in 's', 'ss', 'sh', 'ch', 'x', or 'z' need an 'es' at the end to become **plural**.



NAME: _____ GRADE: PP2 _____ DATE: _____ Time taken _____

Task: circle the singular nouns, underline the plural nouns.

cat

bats

big mean

shoes door it

dogs

mat

hat pens rugs

on desk boot

ball

chairs over

floor under

Singular means only one, plural means more than one. Not all words are nouns

NAME: _____ GRADE: PP2 _____ DATE: _____ Time taken _____

Task: Read each word below and turn it into a plural noun by adding 's'.

	apple	apple__
	ball	ball__
	frog	frog__
	plate	plate__
	book	book__
	chick	chick__
	tree	tree__

Action words: that express physical or mental **actions**. It is merely expressing an **action** or something that a person, animal, force of nature, or thing can do.

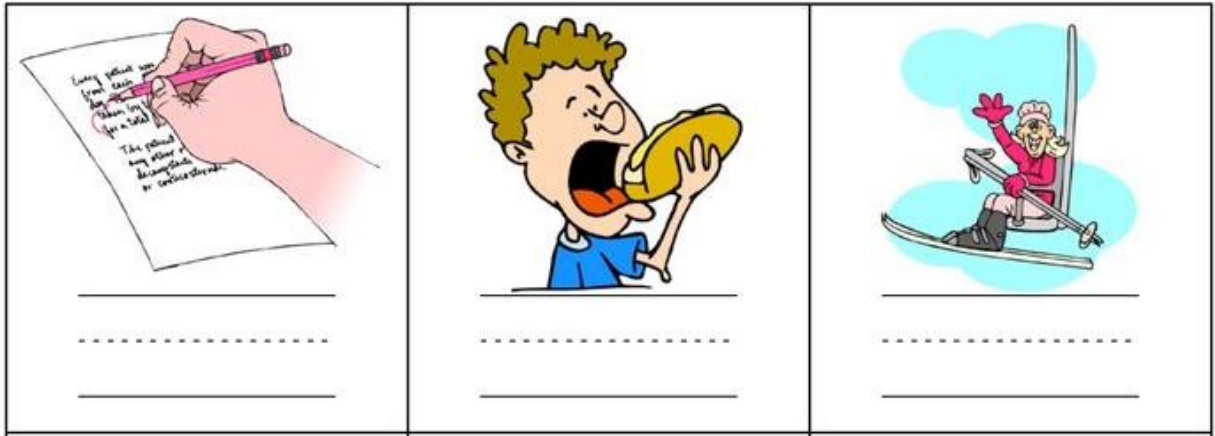
Children learnt about the different action words while listing the choices made by people in their daily lives. They learnt about the different action words and writing the spellings.

Example:

Task: Write the action word for each picture using help box.

Help box:

eat, draw, climb, sleep, skip, hug, cook, drive, write



Describing words:

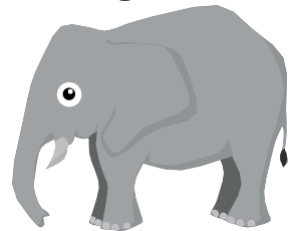
Adjectives are words that are used to describe or modify nouns or pronouns. For example, red, quick, happy, and obnoxious are adjectives because they can describe things—a red hat, the quick rabbit, a happy duck.

Children practiced adjectives and their usage as follows:

Task: Choose the appropriate describing word to complete the sentences. Rewrite the sentence in the space given.

1. The elephant trunk is _____ (long/short).

A. _____



Punctuation: The marks, such as full stop, comma, and brackets, used in writing to separate sentences and their elements and to clarify meaning.

Focusing on the following punctuation marks while writing the sentences or questions.

- Capital letter at the beginning of sentence.
- Period or question mark at the end of a sentence.
- Finger space between the words.

Children practiced punctuations and sentence rules in worksheets as follows:

Task: Rewrite the sentences. Begin the sentence with a capital letter and add punctuation.

1. tom is going to the zoo

Constructing the sentences:

Children learnt to arrange the given words to make meaningful sentences.

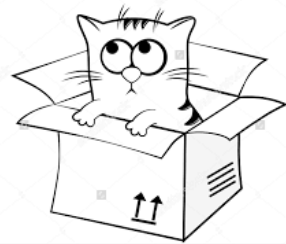
Arranging the sentences in sequence:

Children arranged the given set of sentences in their appropriate order. They learnt about the beginning, middle and end.

Task: Rearrange the words to form a meaningful sentence.

1. box/is/The/in/cat.

_____.



Making your own stories:

After learning to arrange them based on their sequence they started making their own short stories. They started writing short stories in 4 to 5 sentences.

Task: Write few sentences about the given picture using the help box.



Bibliography:

<https://images.app.goo.gl/2PB23hnVHdGVh6HP7> (Refuse symbol)
<https://images.app.goo.gl/vmqHVFeAtKobbFWT7> (4R symbol)

<https://youtu.be/AkSXB-IRAp0>
<http://www.mathsdiary.com/addition-subtraction-rule/>

<https://youtu.be/YWXzZV674KA>

<https://youtu.be/RmLhY7f8WxQ>

https://youtu.be/ju_2NuK5O-E

<https://youtu.be/A8udcpxDLtc>

<https://images.app.goo.gl/wmYwRnmhBUbrvafj7>