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## **OBJECTIVES OF TEACHING ENVIRONMENTAL STUDIES**

#### Introduction

The National Curriculum Committee had recommended in the 1975 policy document "The Curriculum for the Ten-year School: A Framework", that a single subject 'Environmental Studies' be taught at the primary stage. It had proposed that in the first two years (Class I-II) Environmental Studies will look at both the natural and the social environment, while in Classes III-V there would be separate portions for social studies and general science termed as EVS Part I and Part II. The National Policy on Education 1986 and the National Curriculum Framework (NCF) 1988 also posited the same approach for the teaching of Environmental Studies at the primary stage. Contemporary research on how children learn to make sense of the world around them and how pedagogy in primary school can enable them to develop scientific abilities and understanding in consonance with social and environmental concerns has further supported this integrated structure. The NCF 2000 had recommended that Environmental Studies be taught as an integrated course for the entire primary stage, instead of in two distinct parts devoted to science and social studies in Classes III-V. The present NCF 2005 has called for the continuation and further strengthening of this integrated approach for Environmental Studies during the primary years.

## NCF 2005 and Objectives of Environmental Studies

The present syllabus is designed to forge an integrated perspective for the primary stage of schooling that draws upon insights from Sciences, Social Sciences and Environmental Education. The National Curriculum Framework 2005 indicates some of the objectives of teaching science and Social Sciences at the primary stage as follows:

- o to train children to locate and comprehend relationships between the natural, social and cultural environment;
- o to develop an understanding based on observation and illustration, drawn from lived experiences and physical, biological, social and cultural aspects of life, rather than abstractions;
- o to create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces
- o to nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people);
- o to develop an awareness about environmental issues;
- o to engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc.

Integrated Approach of Teaching EVS proposes themes that allow for a connected and interrelated understanding to develop the child's personality. This requires moving beyond traditional boundaries of disciplines and looking at priorities in a shared way. Each theme is woven in a web and continuation with the previous ones. It is a **suggested format** which indicates the key themes and sub themes along with their possible connections. This approach triggers the thinking skills of child and thus opens up new horizons in child's growth .These themes also indicate how adults can stimulate and actively support child's learning rather than restricting it.

## Themes for a Child Centered and Integrated Approach

This syllabus web has been developed within a child centered perspective of themes that provide common interface of issues in social studies, sciences and environmental education. The syllabus for Classes III-V is woven around six common themes given below;

#### 1. Family and Friends:

The predominant theme on 'Family and Friends' encompasses four sub-themes:

- o Relationships.
- o Work and Play
- o Animals
- o Plants

'Plants' and 'Animals' have consciously been included under the theme of 'Family and Friends' to highlight how humans share a close relationship with them and to also provide a holistic and integrated scientific and social perspective of studying them. Traditionally 'plants' or animals' are presented as autonomous categories, seen purely from the perspective of science. Here an attempt is made to locate them in a social and cultural context, and also to see how the lives and livelihoods of some communities, such as the gujjars, musahars or 'pattal'-makers, are closely connected with specific animals or plants. Moreover, in the universe of young children narratives of animals and plants play a significant role, and they can relate well even to the animated characters perceived as 'family and friends'. Our Bodies, Ourselves: 'Family and Friends' offer Sensitivity and Sensibility

This theme especially through its two subthemes – 'Relationships' and 'WORK AND PLAY 'allow the children to look at their body as part of their inner "SELF". In Class III in the sub-theme on Relationships, they discuss their relatives, who live with them and those who have moved away, to get a basic idea of relationships and changing households. They reflect on whom they admire among their relatives and for what qualities or skills, and describe on which occasions or festivals they meet most of them. The unit 'our bodies – old and young' helps them place their own body in relation to those of their family members, and asks them to notice differences that may occur with age In Class IV, the same sub-theme 'Relationships' has a unit on 'your mother as a child' to make children find out about who were her relatives with whom she lived then. They also think about their body in relation to their mother's; how a baby rat or kitten is related to its mother, and through a possible narrative, about children who may have been

adopted/looked after by foster parents, say, after a cyclone. By 'Feeling around with eyes shut' they explore their senses of touch, smell, etc. - not in isolation of the people or animals they care for - but by trying to identify all those living with them only by touching, hearing or smelling them. In Class V, the unit 'Whom do I look like?' helps them identify family resemblances, to look for any similarities in the face, voice, height, etc., and also to note particular traits such as 'who laughs the loudest?'. It goes on to how by 'feeling to read' on a Braille sheet, someone like Helen Keller could manage to overcome tremendous challenges, as described through accounts of her autobiography.

#### 2. Food

Theme Food begins in Class III with cooking, eating in family and about what we eat and what others eat, what animals eat etc. Class IV proceeds ahead to how food is grown, what different plants are known to students and how food reaches us. Class V advances to who grows the food, the hardships farmers may face while staying grounded to reality of own pangs of hunger or plight of people who do not get food. In addition, when food gets spoiled-explores spoilage and need for preservation of food. The changes in food habits and crops grown are analyzed through experiences of elders/ grandparents. Finally our mouth-how it tastes the food and even what helps in digesting food, sees the role of saliva in making food sweet on chewing. While food for plants also introduces the idea of some curious insect eating plants.

#### 3. Shelter

The **theme** Shelter begins in class III with explanations of need of a house and reasoning for the same houses in the same region. Class IV deals with the differences in urban and rural houses, slums and multistoreyed houses. Class V deals with variety of houses in different topographical regions.

#### 4. Water

Dealing with the important issue of water, class 3 deals with availability and storing of water. Class IV continues with water scarcity and its reasons. Conservation of water is dealt with in class V.

#### 5. Travel

The Objective was developed to help child on journey of ideas of expanding social and physical spaces into newer and unfamiliar terrains of often mind boggling and no less fascinating diversity.

The topics covered in class III encourage children to look at their own journeys and compare it with journeys of older people in family while in CLASS IV, the theme suggests travelling through deserts, hills, forests or big cities. Moreover it suggests resources to be brought into class rooms like the experiences of the children of migrating families and discussion of problems faced in starting new life in new city. In CLASS V, this theme takes children through rough and tough terrains of Himalayas, story of Bachchendri Pal and her hoisting flag after a trying expedition.

#### 6. Things we make and do

The area of Things we Make and Do is visualised as an important component as well as a common thread inherent in the process of understanding all the other themes. We humans make things not only to meet our needs but also to express ourselves in a variety of ways and to transcend our limitations. We also comprehend better when we do things ourselves. Often when a young child gets a toy for a gift, she has fun dismantling and later re-assembling it in a completely novel way as much as enjoying it as it is. When she is given a new book she is eager to add 'her pictures' into it as much as appreciating the book. Formal education as well as all that goes into 'being a good child' however discourages these acts. The theme of Things we Make and Do therefore is an opportunity to recharge the variety of energies/components that make learning more fulfilling, and where cognition is not an end but a process enriched by experience, failure, observation, success, etc. There is also a need to give our rich living traditions of art and craft, of 'making and doing things', their rightful place in our curricula. To teach environmental education activities, teachers are encouraged to use the acronym CARE. CARE stands for "Complexity, Aesthetics, Responsibility and Ethics".

*Complexity* - There are natural and human systems that are all connected. As teachers and students, how do we interact with and affect those systems?

Aesthetics - Help your students develop an appreciation for the natural world that will encourage them to learn about and protect the environment.

Responsibility - Provide opportunities for your students to take responsible actions and explore the environmental impact of what they do.

*Ethics* - As your students' understanding of environmental issues develop from participating in environmental education activities, they form an environmental ethic of their own.

Students are working towards:

- o sharing ways to rethink, refuse, reduce, reuse, and recycle
- o describing features of local plants and animals
- o comparing local plants & animals
- o describing attributes of their immediate environment (playground)
- o showing an awareness of the concept of change
- o identifying groups and places that are part of their lives

- o identifying characteristics of different local environments
- o showing responsible behavior in caring for their immediate environment

This child centered approach is not something which enhances rote memory but is something which gives practical approach to child. It helps in shaping the personality of child. Child realizes his inner self in coordination with his surroundings. It also helps him to increase his sensitivity towards helpless people .To sum up, these themes make the child in harmony with his inner self and realize his worth and is able to respect his surroundings and people in his life. The ultimate aim is to make him a responsible member of the family and finally a responsible citizen of the country.

# Academic Plan of

# ENVIRONMENT&L STUDIES

(Class III)



# STATE INSTITUTE OF EDUCATION Sector 32, U T Chandigarh

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# Academic Plan of

# ENVIRONMENTAL STUDIES

(Class III)



# STATE INSTITUTE OF EDUCATION Sector 32, U T Chandigarh

# ACADEMIC PLAN OF ENVIRONMENTAL STUDIES (Class III)

Week	Content	Suggested Activity	Suggested Resource
Wk 1 (April)	Introduction of EVS and readiness for general concepts of family, animals, plants and water	Taking students outside and discussing about constituents of nature i.e. plants, animals etc.	Picture showing relationship between man and his surroundings*
	<ul> <li>Pre-knowledge of students about surroundings, body parts, water, plants and animals, family members.</li> <li>Introduction to EVS         <ul> <li>its importance</li> <li>relation with daily life</li> </ul> </li> </ul>	<ul> <li>Naming and drawing the human body parts, like HEAD,EARS,EYES, NOSE, ARMS, LEGS</li> <li>Naming the animals (Cow, Horse, Dog, Cat, Rat, Monkey) and birds (Sparrow, Pigeon, Crow, Eagle) seen around the school/ home</li> <li>Naming the trees (Mango, Peepal, Neem, Banana) and flowering plants (Rose, Marigold, Dahlia)</li> <li>Discussing Family relationships i.e. Grand Parents, Parents etc.</li> <li>Discussion on sources (Tap, Handpump, Tubewell, Tanks) and uses (Domestic and Commercial) of water</li> </ul>	<ul> <li>human body parts*</li> <li>animals*</li> <li>birds*</li> <li>Pictures of trees and flowering plants *</li> </ul>

# Wk 2 (April)

# Poonam's Day Out

- Exploring children's idea about animals
- Classification of animals, flyers, insects on their:
  - o movement
  - Habitats
  - habits
  - o sounds.
- Making child aware about animals and their life styles.

- Visiting Chhatbir zoo if possible.
- Collecting or pasting pictures of animals seen around school / home on note book
- Making a list of animals seen around school / home and their food habits
- Naming and identification of animals which can
  - o crawl
  - o fly
  - o walk
  - o hop
  - o have wings
  - have feet
  - o have tail

(Page 2 and 3)#

- Colouring of wild animals (Page 4)#
- Recognising the animals from their characteristics and sound.
- Making pictures of bird and animals by thumb and finger prints (Page 6)#
- Naming the animals which can be seen on Branches, Leaves, Trunks, Ground and around Tree (Page 8)#
- Sequencing the cut outs in a jigsaw puzzle to complete the picture of an animal (Page 8 and 9)#

- Chhatbir Zoo (14 km from Chandigarh)
- Pictures and flash cards of
  - o Animals\*
  - o Birds\*
  - o Insects\*
- Pictures to show different birds, animals and their habitats\*

- o Cross word puzzles (Page 5)#
- Worksheet\*

		<ul> <li>Matching the animals with their sounds.</li> <li>Mimicry on sounds of animals and birds</li> <li>Role play on sensitization of care and love for animals.</li> </ul>	<ul> <li>Sounds of animals and birds from internet (http://www.animalsounds.org) (http://www.youtube.com/watch?v=t99ULJjCsaM)</li> <li>Worksheet*</li> <li>Refer to Poem "How Creatures Move" Unit 10 on Page 97 of English Book Marigold of Class III.</li> </ul>
Wk 3 (May)	<ul> <li>The Plant Fairy</li> <li>Different types of plants on basis of <ul> <li>size,</li> <li>shape</li> <li>colour</li> <li>edible as food.</li> </ul> </li> <li>Decoration with help of leaves</li> </ul>	<ul> <li>Reciting the poem on leaves (Page 13)#</li> <li>Making pictures of animals using dry leaves. (Page 14)#</li> <li>Taking original texture of leaf and stem using colours and pressing it on paper (Page 15)#</li> <li>Listing the names of some of the leaves which are used as food items</li> <li>Role play on sensitization of care and love for plants and trees</li> <li>Organizing a nature walk and observe the plants keenly.</li> </ul>	<ul> <li>Wax colours and paper to trace dried leaves and barks of different types of trees.</li> <li>Pictures of the leaves which are used as food items*</li> </ul>

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		• Collecting or pasting different types of leaves (Lemon, Mango, Neem, Tulsi, Pudina, Coriander etc.) in Note book.	• Pictures of different types of leaves*
		<ul> <li>Making clay impressions of different leaves</li> <li>Prepare picture cards using leaves</li> </ul>	Clay and Dried fallen leaves of different plants in the school and around home.
		Interviewing the school gardener	
		Making a compost pit*	
		Listing medicinal plants i.e. Neem, Amla, Aloevera	Pictures of medicinal plants*
		Matching the uses of leaves	Worksheets*
			<ul> <li>Refer to Chapter 14 "Sab se achha Per" of Hindi Book 'Rimjhim' of Class III.</li> <li>Refer to Poem "Little by Little" on Page 23 Unit III of English Book Marigold of Class III.</li> </ul>
Wk 4 (May)	<ul> <li>Water' O Water</li> <li>Local sources of water.</li> <li>Uses of water.</li> <li>Importance of clean water for drinking.</li> <li>Ways to conserve water</li> </ul>	<ul> <li>Reciting the poem on Water (Page 19)#</li> <li>Naming the three states of water (Poem on Page 19)#</li> <li>Naming the activities that can be done with / without water (Page 20)#</li> </ul>	Picture showing the three states of Water*

•	Listing	the	sources	and	uses	of	water	(Page	20
	& 21)#								

- Drawing and colouring the pictures of the containers used for storing water (Page 22)#
- Showing different containers used for holding water for comparing capacity (Page 23)#
- Finding different sources of water from crossword grid (Page 23)#
- Making multi coloured mingled prints using colours and water (Page 24)#
- Suggesting ways how we can save water on daily basis.\*
- water.
  (http://video.nationalgeographic.c
  om/video/player/environment/goin
  g-green-environment/green-homemakeover/conserve-watergreenguide.html)
  (http://video.nationalgeographic.co
  m/video/player/environment/fresh
  water/env-freshwaterwhycare.html)

Visual clips of conservation of

- Poster making/slogan writing on the message of saving water
- Drawing the journey of water
- Showing the picture of water–cycle

water\*

Poster on the message of saving

• Picture of Water Cycle\*

	faced.  Need for living together  Garbage disposal.	<ul> <li>Reciting poem "Home Sweet Home" (PAGE 33)#</li> <li>Listing the wanted/unwanted insects / Animals living in and around houses (Page 34)#</li> <li>Listing ways to decorate a house (PAGE 35)#</li> <li>Showing pictures of various animals / birds and insects in their shelters</li> </ul>	<ul> <li>Pictures of different animals found in and around the house*</li> <li>Worksheet*</li> <li>Pictures of various animals / birds and insects in their shelters*</li> <li>Worksheet*</li> </ul>
		Discussion on Garbage Disposal	
***************************************		• Discussion on "How to keep our house clean?"	Worksheets*
Wk 7 (July)	<ul> <li>Foods We Eat</li> <li>Appreciation of cultural diversity in food.</li> <li>Basic ideas about various plants used as food.</li> <li>Different ways of eating food-raw, cooked, steamed, boiled, baked and fried.</li> <li>Different eating practices-amount of food varying with gender, age, physical activity etc.</li> <li>Cooking and gender role in family.</li> </ul>	<ul> <li>Listing of food we eat during different times in a day (Page 37)#</li> <li>Discussing relationship between health status, physical activity and food intake (Page 39)#</li> <li>Writing what all may be prepared from RICE and WHEAT (Page 40)#</li> <li>Listing the food items that students like / dislike to eat (Page 40 &amp; 42)#</li> </ul>	items we eat during the day*

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	Food for baby and significance of mother's milk.	<ul> <li>Naming food items of different states of India (Page 41)</li> <li>Tabulating food we get from different plants and animals.</li> <li>Choosing the food items obtained from vegetables and animals</li> <li>Drawing different plants used as food like carrot, radish etc.</li> </ul>	<ul> <li>Worksheet*</li> <li>Pictures showing variety of food items we get from plants and animals*</li> <li>Worksheet*</li> </ul>
Wk 8 (July)	<ul> <li>Saying Without Speaking</li> <li>Inculcating among the children sensitivity to the physical challenged persons</li> <li>Importance of facial expressions</li> <li>Different senses and their functions</li> <li>Use of sign languages and dance mudras</li> </ul>	<ul> <li>Playing Dumb Charads in the class (Page 43)#</li> <li>Reciting the poem with expressions (Page 45)</li> <li>To draw different face expressions based on situations (Pages 46-47)</li> <li>Developing story based on pictures (Page 49)</li> <li>Explaining the meaning of Mudras from the pictures (Page 48)</li> <li>Discussing the sign boards used in traffic signals</li> <li>Explaining the concept of Traffic Lights</li> </ul>	<ul> <li>Refer to sign Languages and dance mudras on Pages 94 &amp; 95 ("LET'S KNOW THESE SIGNS") of English book Marigold of class III.</li> <li>Pictures of sign boards used in traffic signals*</li> <li>Picture of Traffic Lights*</li> </ul>

		<ul> <li>Showing various Smileys and naming the emotions depicted in each</li> <li>Introducing and using sign language in class</li> </ul>	<ul> <li>Picture of Smileys*</li> <li>Pictures of sign language using hands*</li> </ul>
Wk 9 (July)	<ul> <li>Flying High</li> <li>Exploring children's ideas on birds and their habitats, eating habits,</li> <li>Common features like feathers and sounds produced by them.</li> <li>How to feed the birds.</li> </ul>	<ul> <li>Recognizing the birds on the basis of their characteristics i.e. Size, Colour, Feathers, Beak and Eating habits (Page 50-51)#</li> <li>Drawing pictures of different birds (Page 50-51)#</li> </ul>	• Worksheets*
	Thow to reed the origin.	<ul> <li>Making lists of birds seen around school, home etc. (Page 53)#</li> <li>Drawing pictures of beaks of different birds and discussing its use (Page 53-54)#</li> <li>Matching the birds with their food (Page 54)#</li> <li>Collecting feathers of different birds and identifying to which birds it belongs (Page 55)#</li> </ul>	Pictures of birds seen around school and home*
		<ul> <li>Making a Paper Bird (Page 56)#</li> <li>Mimicking different sounds and neck movements of birds and asking the students to recognise.</li> <li>Making a nest or birdhouse to be placed in</li> </ul>	Visual and audio clips on sounds of birds (http://www.animal- sounds.org)

		their garden/balcony/backyard using straw, dry grass, leaves*  Writing a poem on peacock /cuckoo /parrot /swan or any other bird.  Visiting Chhatbir zoo, if possible and writing a report or initiating a talk about it in the class.	<ul> <li>Integrate with the Lesson "Nina and the Baby Sparrow" from English text book Marigold for Class III.</li> <li>Chhatbir Zoo (14 km from Chandigarh)</li> </ul>
Wk 10 (Aug)	<ul> <li>Its Raining</li> <li>Importance of rain,</li> <li>how rain comes,</li> <li>discussion on formation of clouds,</li> <li>how water is useful for plant and animal life</li> </ul>	<ul> <li>Observing the growth of plant in school or at home</li> <li>Reciting a poem on clouds (Page 59)#</li> </ul>	<ul> <li>Frequent Visit to school garden</li> <li>Visual clips of rains (http://www.fotosearch.com/vide o-footage/rainfall.html)</li> </ul>
		<ul> <li>Discussing the problem faced by the people when         <ul> <li>it rains heavily</li> <li>it rains less</li> </ul> </li> <li>Making a list of good and bad effects of rain (Page 60)#</li> </ul>	excessive / no rains*

		<ul> <li>Writing few lines on the 'Rainfall' and 'Clouds'</li> <li>Drawing 'a rainbow'</li> <li>Drawing the 'scene of a rainy day'*</li> <li>Discussion on clothes worn on rainy day.</li> <li>Making a paper boat.</li> </ul>	<ul> <li>Picture of rainbow*</li> <li>Picture of scene of a rainy day*</li> <li>Pictures of clothes worn on rainy day*</li> <li>(This chapter is to be done preferably on rainy day) to be coordinated with chapter 7 "TIPTAPVA" of Hindi book "Rimjhim" of Class III.</li> </ul>
Wk 11 (Aug)	<ul> <li>What is Cooking</li> <li>Different types of utensils used</li> <li>Different methods of cooking</li> <li>Different types of fuels used for cooking and their impact on environment</li> <li>Conservation of fuel</li> </ul>	<ul> <li>Drawing and colouring of different food vessels (Page 61)#</li> <li>Making a list of things eaten raw and things eaten cooked (fried, roasted and steamed) (Page 62)#</li> <li>Collecting &amp; pasting the pictures of food items in the note book</li> <li>Writing steps of cooking a food item (Page 63)#</li> <li>Discussing the different methods of cooking observed at home (Page 63)#</li> </ul>	<ul> <li>Worksheets*</li> <li>Pictures of Food Items*</li> <li>Worksheet*</li> </ul>

		<ul> <li>Identifying and drawing pictures of different types of devices used for cooking. Also naming the fuel used at home and discussing whether it pollutes the environment or not (Page 64)#</li> <li>Comparing the chulha, a gas stove and other devices used for cooking and listing the advantages and limitations (Page 64)#</li> <li>Preparing fruit chat, lemonade, sprouts etc. (Page 65)#</li> <li>Discussing the specific food items of various states of India</li> </ul>	• Worksheet*
Wk 12 (Aug)	<ul> <li>From Here To There</li> <li>Need for travelling</li> <li>Travelling for migration, sightseeing, Family occasion etc</li> </ul>	• Reciting poems on 'Train' with dramatization (Pages 66-67)#	Page 23 Unit 6 of English Book Marigold of Class III.
	<ul> <li>Travelling within the locality and beyond</li> <li>Modes of travel (Land,</li> </ul>	• Listing the various vehicles named in the book (Pages 68-69)#	• Pictures on Page 68-69#
	<ul> <li>Modes of travel (Land, water and air)</li> <li>Uses of different vehicles.</li> </ul>	Discussion on pictures of polluting and non polluting vehicles	Pictures of polluting and non polluting vehicles*
		Classifying the modes of transport on basis of land, water and air. (Page 68-69)#	<ul> <li>Pictures of Land Transport., Water Transport and Air Transport (Bus, Train Ambulance, Aeroplane, Ship)*</li> <li>Worksheets*</li> </ul>

		<ul> <li>Matching and discussing the use of different vehicles (Page 70, 71, 72 &amp; 76)#</li> <li>Joining the vehicles to the number of wheels each vehicle has (Page 73)#</li> <li>Recognising a vehicle from its sound (Page 75)#</li> <li>Making a toy train (Page 75)#</li> <li>Solving a scramble puzzle to make the picture of an animal used for riding (Page 77)#</li> <li>Discussing the animal driven and human driven vehicles</li> <li>Drawing the picture of the vehicle of choice</li> </ul>	<ul> <li>human driven vehicles*</li> <li>Also Refer to Chapter 23 "PAYIE UTTE DUNIYA GHUME" on</li> </ul>
			Page 74 of Punjabi book of Class III.
Wk 13 (Aug)	<ul> <li>Work We Do</li> <li>Introduction to different occupations</li> <li>Work inside and outside the home</li> <li>Discrimination on the basis of gender, age, caste, economy etc</li> <li>Importance of school for all children</li> </ul>	<ul> <li>Naming different occupations from given picture (Page 78-80)#</li> <li>Identifying five different types of work and the names by which those people are called (Observing people at work in the neighbourhourhood of Home or School) (Page 81) #</li> <li>Making a list of school employees and work</li> </ul>	• Worksheet*

	Discouraging child labour.	done by them (Page 82)#	
		• Writing the names of any five buildings and work done in them.(Page 82)#	
		• Drawing a daily time table chart for parents and students (Page 84)#	
		<ul> <li>Making a list of family members which earn money and who do household work (Page 85)#</li> </ul>	
		• Differentiating between the works done to earn and household works	• Worksheet*
		• Naming the places where the work is done.	• Worksheet*
Wk 14 (Sept)	• Introduction to sense organs: • Hearing	• Reading the story of Ravi Bhaiya (Page 87-88)#	
	<ul><li>Sight etc.</li><li>Understanding physically</li></ul>	• Listing sense organs and recognizing the importance of sense organs.	• Pictures of sense organs and their uses*
	<ul> <li>• Understanding physically challenged especially blind,</li> <li>• Understanding the basic idea of BRAILLE.</li> </ul>	• Discussing the problems faced by old members of family (Page 88)#	Pictures of old people with their problems*
		• Enacting blind fold Act (to recognize the fellow student on basis of sound) (Page 89)#	
		<ul> <li>Playing a blindfolded game on the playground         <ul> <li>to sensitize the importance of eyes.(Page 90)#</li> </ul> </li> </ul>	

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	Last throe weeks of Sentembe	<ul> <li>Introducing the idea of Braille (Page 90 – 91)#</li> <li>Visiting local blind institutions and enlisting their problems, if possible</li> <li>Discussing the importance of smell in identifying the food</li> <li>Watching the News for deaf and dumb</li> </ul>	<ul> <li>Chandigarh</li> <li>Television for news of deaf and dumb</li> </ul>
Wk 15 (Oct)	<ul> <li>The Story of Food</li> <li>Introduction to eating pattern</li> <li>Different role of family members of buying and cooking food</li> <li>Different sources of food</li> <li>Parts of plants eaten as food</li> <li>Traditional knowledge of medicinal plants</li> </ul>	<ul> <li>Describing the work done by different members of a family (Page 92-93)#</li> <li>Listing the food items that we get from plants and animals (Page 94)#</li> <li>Listing the medicinal plants.</li> <li>Showing various things like Turmeric, Honey, Ajwain, Lemon, Saunf etc and discussing their medicinal uses.</li> <li>Classifying the part of plants eaten as food into Leaves, Stem, Root, Flower etc.(Page 95)#</li> <li>Drawing pictures of favorite Fruits and Vegetables</li> </ul>	<ul> <li>Pictures of medicinal plants.*</li> <li>Turmeric, Honey, Ajwain, Lemon, Saunf etc</li> </ul>

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		• Finding names of fruits and vegetables from a Crossword Puzzle*	Crossword Puzzle*
Wk 16 (Oct)	<ul> <li>Making of Pots</li> <li>Studying different types of pots</li> <li>Understanding the making of pots by different methods and following the proper sequence</li> <li>Knowledge about KILN</li> </ul>	<ul> <li>Narrating story on pot making in early times and asking questions based on the story (Page 96-98)#</li> <li>Discussing the steps of Pot Making and demonstrating the same in the class</li> <li>Making pots of various shapes / Drawing pots and exhibiting in the class (Page 98-99)#</li> <li>Discussing the use and importance of pots (Page 100)#</li> <li>Discussing the use and importance of kiln.</li> <li>Collecting soil from different places (such as school playgroud, farm, paddy fields and the place where construction work is going on), observing the size of particles, colour and texture of the soil and identifying the soil suitable for pot making.</li> </ul>	<ul> <li>Pictures of making a Pot*</li> <li>Clay</li> <li>Picture of kiln*</li> </ul>
Wk 17 (Oct)	<ul> <li>Games We Play</li> <li>Concept of games</li> <li>Comparisons of past and modern games</li> <li>Concept of outdoor and indoor games</li> <li>Uses of games.</li> </ul>	<ul> <li>Listing the indoor and outdoor games played with family members in their free time (Page 101-103)#</li> <li>Making a list of games played in the school and at home and writing the number of players involved in each (Page 104)#</li> </ul>	

<sup>\*</sup> Available in Resource book

	Knowledge of games.	•	Discussing the games played with the family members (Page 105)#		
		•	Pasting the pictures of famous sports persons in the note book and discussing them (Page 106)#	•	Pictures of Famous Sports Personalities*
		•	Making a list of games played with Ball (Page 106)#		
		•	Matching the riddles with the pictures and writing the name of the game in the given space (Page 107)#		
		•	Listing the activities done by family members in their free time (Page 108)#		
		•	Taking students in the school playground and playing traditional games like Stapu, Hide & Seek, Pakam-Pakadai, Vish-Amrit, Chor-Siphai, Pithoo etc.		
		•	Making a Kite	•	Steps of Kite making*
					Refer to Chapter 13 "AAO GITTE KHEDIE" on Page 40 of Punjabi Book of class III.
Wk 18 (Nov)	<ul> <li>Here Comes a Letter</li> <li>Letter as a means of communication</li> <li>Work of people associated</li> </ul>	•	Arranging the pictures in correct order to show the journey of a letter(Page 110)#		

with post office  • Different means of communication  • Changes in means of communication with time	<ul> <li>Making a model of a letter- box for the class. (Page 111)#</li> <li>Enacting the process of delivering a letter (Taking into consideration all the steps required in reaching letters to destination) (Page 111)#</li> </ul>	
	<ul> <li>Collecting stamps and pasting on note book. (Page 112)#</li> <li>Trip to local post office for observing weighing,</li> </ul>	
	<ul> <li>stamping, sorting of letters etc (Page 113)#</li> <li>Making of post card and writing a letter on a post card with the correct addresses of sender</li> </ul>	
	<ul> <li>and recipient (Page 113)#</li> <li>Discussion on different means of communication and comparison of modern methods and past methods*(Page 114)#</li> </ul>	Pictures depicting modern and old methods of communication*
	<ul> <li>Making a toy telephone (Page 115)#</li> <li>Drawing the picture of a Telephone (Page 115)#</li> </ul>	
	• Students may be taught about pin code of their area and its importance in letters and explaining the importance of first two digits*	Sample pin codes in class *

			Also Refer to Chapter 14 "DAK KHANE DE SUVE" on Page 45 of Punjabi book of class III.
Wk 19 (Nov)	<ul> <li>A House Like This</li> <li>Different types of houses</li> <li>Houses at <ul> <li>hilly areas,</li> <li>dry areas,</li> <li>rainy areas,</li> <li>snowy areas,</li> <li>plains etc.</li> </ul> </li> <li>Different materials used for construction.</li> </ul>	<ul> <li>Discussion on climatic conditions of different regions mentioned in the chapter like Manali, Rajasthan, Assam etc. (Page 116-121)#</li> <li>Making drawings of different houses (based on topography and climatic conditions) (Page 116-121)#</li> <li>Matching the name of the house with the picture (Page 122)#</li> <li>Writing the name of materials used in each type of house and discussing the reasons for using a particular material for constructing a house in a particular region (Page 123)#</li> <li>Making a toy brick (Page 123)#</li> <li>Dividing the students into four groups and asking them to decorate the four corners of the class room using the materials that are nature friendly. This may be done as a competition and the same may be assessed.</li> </ul>	
Wk 20 (Nov)	<ul> <li>Our Friends - Animals</li> <li>Sensitizing children towards animals</li> </ul>	• Discussion on the stories given in the Chapter to develop sensitivity in the students towards animals (Page 124-126)#	

<sup>\*</sup> Available in Resource book. # Available in Text book.

	<ul> <li>Concept of inter dependence of living thing and non living things on environment</li> <li>Eating habits of birds and animals</li> <li>Food habits of domestic and wild animals</li> <li>Care of domestic animals</li> </ul>	<ul> <li>Discussing the types of food and ways of feeding and looking after various domestic animals like cow, cat dog, donkey etc. (Page 126)#</li> <li>Making a list of pet animals and their utility (Page 127)#</li> <li>Asking the child to write what to do when the pet is hungry, feeling hot or cold, teased or hurt by someone (Page 127)#</li> <li>Observing and reporting the food habits of a bird and an animal for few days (Pages 128-129)#</li> <li>Matching the animals with their food (Page 130)#</li> <li>Writing names of animals which can be touched and which cannot be touched (Page 130)#</li> <li>Narrating the story to explain the concept of balance in nature (Page 131)#</li> <li>Visiting to a poultry farm/ zoo/ diary farm/ fish rearing farm and studying the feeds and feeding process of sparrow, cow, ox, hen, fish etc.</li> </ul>	Worksheet*      Gau Shala Sector 45, Chandigarh
Wk 21 (Nov)	<ul><li> Water scarcity</li><li> local methods of collecting</li></ul>	<ul> <li>Narrating the story of Madho and making a list of difficulties faced by people due to scarcity of water (Page 132 - 133)#</li> </ul>	

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	water  • Methods to save and re-use water  • Introduction to concept of water harvesting	<ul> <li>Demonstrating the importance of every drop of water (Page 134)#</li> <li>Listing daily life activities in which water is wasted (Page 135)#</li> <li>Writing activity how to re-use water (Page 136)#</li> <li>Discussion on methods to save water in daily life*</li> <li>Discussion on Rain water harvesting</li> <li>Discussion about Desert life*</li> <li>Poster making on water conservation</li> </ul>		Activity*  Picture of rain water harvesting *  Pictures of camel, Oasis, Palm trees*
	-	nd First two weeks of January are for Reflective Asse	essm	nent and other activities.
Wk 22 (Jan)	<ul> <li>Families Can Be Different</li> <li>Concept of family</li> <li>Diversities in the family</li> <li>Types of families</li> <li>Relationship between different members of family</li> <li>Recent trend of changes in the family</li> </ul>	<ul> <li>Organizing a play game on grouping (Page 137)#</li> <li>Organizing a role play by asking students to behave like grandfather, grandmother, son, daughter, etc. to illustrate their roles and relationships on the basis of stories given (Page 137-142)#</li> </ul>		

Drawing a family tree (Page 143)#

• Picture of a family tree\*

		<ul> <li>Worksheet for identifying different family members based on stories given on Page 137- 142</li> </ul>	Worksheets *
Wk 23 (Jan)	<ul> <li>Left Right</li> <li>Introduction of traffic rules</li> <li>Signs and symbol of traffic</li> <li>Directions</li> </ul>	<ul> <li>Reciting the poem with actions and recognizing Left and Right (Page 145)#</li> <li>Drawing and completing the picture according to Left and Right directions (Page 146)#</li> </ul>	
		• Tracing the Ruchira's path from home to school and completing the related worksheet (Pages 147 - 148)#	
		• Locating different objects and buildings using signs and symbols (Page 149)#	
		• Drawing the map with signs and symbols (Page 150)#	
		<ul> <li>Drawing signs and symbols which indicate some building or institution like + for a hospital (Page151)#</li> </ul>	
		• Reading the map ( Page 152)#	
		• Visit to traffic park, if possible	• Children traffic park, Sector 23, Chandigarh
		Introduction to Traffic lights and symbols	• Pictures of signs and symbols of traffic rules*

		• Enacting a traffic policeman controlling the traffic	
Wk 24 (Feb)	<ul> <li>A Beautiful Cloth</li> <li>Different types of clothes</li> <li>Use of different colours</li> <li>Designs on fabrics</li> <li>Use of Vegetable Dyes</li> </ul>	<ul> <li>Activity of printing with the help of ladyfingers, potatoes etc (Page 155)#</li> <li>Making a paper cloth with the help of paper strip (using concept of weaving) (Page 155)#</li> </ul>	
		Observing threads of Mette cloth/ Sack/ Woolen cloth and its measurement.	School Home Science Laboratory
		<ul> <li>Preparing printing blocks using patatoes, lady finger etc and printing designs on paper using water colours.</li> </ul>	
		Demonstration of Tie and Die method	• Tie and Die method*
Wk 25 (Feb)	Web of Life  Interdependence of all living/non living things on each other	<ul> <li>Making a flow chart of pictures of living and non living things inter dependent on each other and forming a web. (Page 156-157)#</li> <li>Collecting pictures of plant eating animals and pasting in the note book (Page156-157)#</li> </ul>	
		Observing and reporting the food habits of a bird and an animal for three days	<ul><li> Visit to the school park</li><li> A field trip to near surrounding</li></ul>
		Showing picture of a food chain	• Picture of a food chain *

Last two weeks of February are for Reflective Assessment and other activities.

# OBJECTIVES OF TEACHING ENVIRONMENTAL STUDIES

#### Introduction

The National Curriculum Committee had recommended in the 1975 policy document "The Curriculum for the Ten-year School: A Framework", that a single subject 'Environmental Studies' be taught at the primary stage. It had proposed that in the first two years (Class I-II) Environmental Studies will look at both the natural and the social environment, while in Classes III-V there would be separate portions for social studies and general science termed as EVS Part I and Part II. The National Policy on Education 1986 and the National Curriculum Framework (NCF) 1988 also posited the same approach for the teaching of Environmental Studies at the primary stage. Contemporary research on how children learn to make sense of the world around them and how pedagogy in primary school can enable them to develop scientific abilities and understanding in consonance with social and environmental concerns has further supported this integrated structure. The NCF 2000 had recommended that Environmental Studies be taught as an integrated course for the entire primary stage, instead of in two distinct parts devoted to science and social studies in Classes III-V. The present NCF 2005 has called for the continuation and further strengthening of this integrated approach for Environmental Studies during the primary years.

## NCF 2005 and Objectives of Environmental Studies

The present syllabus is designed to forge an integrated perspective for the primary stage of schooling that draws upon insights from Sciences, Social Sciences and Environmental Education. The National Curriculum Framework 2005 indicates some of the objectives of teaching science and Social Sciences at the primary stage as follows:

- o to train children to locate and comprehend relationships between the natural, social and cultural environment;
- o to develop an understanding based on observation and illustration, drawn from lived experiences and physical, biological, social and cultural aspects of life, rather than abstractions;
- o to create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces
- o to nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people);
- o to develop an awareness about environmental issues;
- o to engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc.

Integrated Approach of Teaching EVS proposes themes that allow for a connected and interrelated understanding to develop the child's personality. This requires moving beyond traditional boundaries of disciplines and looking at priorities in a shared way. Each theme is woven in a web and continuation with the previous ones. It is a **suggested format** which indicates the key themes and sub themes along with their possible connections. This approach triggers the thinking skills of child and thus opens up new horizons in child's growth. These themes also indicate how adults can stimulate and actively support child's learning rather than restricting it.

#### Themes for a Child Centered and Integrated Approach

This syllabus web has been developed within a child centered perspective of themes that provide common interface of issues in social studies, sciences and environmental education. The syllabus for Classes III-V is woven around six common themes given below;

#### 1. Family and Friends:

The predominant theme on 'Family and Friends' encompasses four sub-themes:

- o Relationships.
- o Work and Play
- Animals
- o Plants

'Plants' and 'Animals' have consciously been included under the theme of 'Family and Friends' to highlight how humans share a close relationship with them and to also provide a holistic and integrated scientific and social perspective of studying them. Traditionally 'plants' or animals' are presented as autonomous categories, seen purely from the perspective of science. Here an attempt is made to locate them in a social and cultural context, and also to see how the lives and livelihoods of some communities, such as the gujjars, musahars or 'pattal'-makers, are closely connected with specific animals or plants. Moreover, in the universe of young children narratives of animals and plants play a significant role, and they can relate well even to the animated characters perceived as 'family and friends'. Our Bodies, Ourselves: 'Family and Friends' offer Sensitivity and Sensibility

This theme especially through its two subthemes – 'Relationships' and 'WORK AND PLAY 'allow the children to look at their body as part of their inner "SELF'. In Class III in the sub-theme on Relationships, they discuss their relatives, who live with them and those who have moved away, to get a basic idea of relationships and changing households. They reflect on whom they admire among their relatives and for what qualities or skills, and describe on which occasions or festivals they meet most of them. The unit 'our bodies – old and young' helps them place their own body in relation to those of their family members, and asks them to notice differences that may occur with age In Class IV, the same sub-theme 'Relationships' has a unit on 'your mother as a child' to make children find out about who were her relatives with whom she lived then. They also think about their body in relation to their mother's; how a baby rat or kitten is related to its mother, and through a possible narrative, about children who may have been

adopted/looked after by foster parents, say, after a cyclone. By 'Feeling around with eyes shut' they explore their senses of touch, smell, etc. - not in isolation of the people or animals they care for - but by trying to identify all those living with them only by touching, hearing or smelling them. In Class V, the unit 'Whom do I look like?' helps them identify family resemblances, to look for any similarities in the face, voice, height, etc., and also to note particular traits such as 'who laughs the loudest?'. It goes on to how by 'feeling to read' on a Braille sheet, someone like Helen Keller could manage to overcome tremendous challenges, as described through accounts of her autobiography.

#### 2. Food

Theme Food begins in Class III with cooking, eating in family and about what we eat and what others eat , what animals eat etc. Class IV proceeds ahead to how food is grown, what different plants are known to students and how food reaches us. Class V advances to who grows the food , the hardships farmers may face while staying grounded to reality of own pangs of hunger or plight of people who do not get food. In addition, when food gets spoiled-explores spoilage and need for preservation of food. The changes in food habits and crops grown are analyzed through experiences of elders/ grandparents. Finally our mouth- how it tastes the food and even what helps in digesting food, sees the role of saliva in making food sweet on chewing. While food for plants also introduces the idea of some curious insect eating plants.

#### 3. Shelter

The **theme** Shelter begins in class III with explanations of need of a house and reasoning for the same houses in the same region. Class IV deals with the differences in urban and rural houses, slums and multistoreyed houses. Class V deals with variety of houses in different topographical regions.

#### 4. Water

Dealing with the important issue of water, class 3 deals with availability and storing of water. Class IV continues with water scarcity and its reasons. Conservation of water is dealt with in class V.

#### 5. Travel

The Objective was developed to help child on journey of ideas of expanding social and physical spaces into newer and unfamiliar terrains of often mind boggling and no less fascinating diversity.

The topics covered in class III encourage children to look at their own journeys and compare it with journeys of older people in family while in CLASS IV, the theme suggests travelling through deserts, hills, forests or big cities. Moreover it suggests resources to be brought into class rooms like the experiences of the children of migrating families and discussion of problems faced in starting new life in new city. In CLASS V, this theme takes children through rough and tough terrains of Himalayas, story of Bachchendri Pal and her hoisting flag after a trying expedition.

#### 6. Things we make and do

The area of Things we Make and Do is visualised as an important component as well as a common thread inherent in the process of understanding all the other themes. We humans make things not only to meet our needs but also to express ourselves in a variety of ways and to transcend our limitations. We also comprehend better when we do things ourselves. Often when a young child gets a toy for a gift, she has fun dismantling and later re-assembling it in a completely novel way as much as enjoying it as it is. When she is given a new book she is eager to add 'her pictures' into it as much as appreciating the book. Formal education as well as all that goes into 'being a good child' however discourages these acts. The theme of Things we Make and Do therefore is an opportunity to recharge the variety of energies/components that make learning more fulfilling, and where cognition is not an end but a process enriched by experience, failure, observation, success, etc. There is also a need to give our rich living traditions of art and craft, of 'making and doing things', their rightful place in our curricula. To teach environmental education activities, teachers are encouraged to use the acronym CARE. CARE stands for "Complexity, Aesthetics, Responsibility and Ethics".

*Complexity* - There are natural and human systems that are all connected. As teachers and students, how do we interact with and affect those systems?

*Aesthetics* - Help your students develop an appreciation for the natural world that will encourage them to learn about and protect the environment.

*Responsibility* - Provide opportunities for your students to take responsible actions and explore the environmental impact of what they do.

*Ethics* - As your students' understanding of environmental issues develop from participating in environmental education activities, they form an environmental ethic of their own.

Students are working towards:

- o sharing ways to rethink, refuse, reduce, reuse, and recycle
- o describing features of local plants and animals
- o comparing local plants & animals
- o describing attributes of their immediate environment (playground)
- o showing an awareness of the concept of change
- o identifying groups and places that are part of their lives

- o identifying characteristics of different local environments
- o showing responsible behavior in caring for their immediate environment

This child centered approach is not something which enhances rote memory but is something which gives practical approach to child. It helps in shaping the personality of child. Child realizes his inner self in coordination with his surroundings. It also helps him to increase his sensitivity towards helpless people .To sum up, these themes make the child in harmony with his inner self and realize his worth and is able to respect his surroundings and people in his life. The ultimate aim is to make him a responsible member of the family and finally a responsible citizen of the country.

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# Academic Plan of

## ENVIRONMENT&L STUDIES

(Class IV)



### STATE INSTITUTE OF EDUCATION Sector 32, U T Chandigarh

#### OBJECTIVES OF TEACHING ENVIRONMENTAL STUDIES

#### Introduction

The National Curriculum Committee had recommended in the 1975 policy document "The Curriculum for the Ten-year School: A Framework", that a single subject 'Environmental Studies' be taught at the primary stage. It had proposed that in the first two years (Class I-II) Environmental Studies will look at both the natural and the social environment, while in Classes III-V there would be separate portions for social studies and general science termed as EVS Part I and Part II. The National Policy on Education 1986 and the National Curriculum Framework (NCF) 1988 also posited the same approach for the teaching of Environmental Studies at the primary stage. Contemporary research on how children learn to make sense of the world around them and how pedagogy in primary school can enable them to develop scientific abilities and understanding in consonance with social and environmental concerns has further supported this integrated structure. The NCF 2000 had recommended that Environmental Studies be taught as an integrated course for the entire primary stage, instead of in two distinct parts devoted to science and social studies in Classes III-V. The present NCF 2005 has called for the continuation and further strengthening of this integrated approach for Environmental Studies during the primary years.

#### NCF 2005 and Objectives of Environmental Studies

The present syllabus is designed to forge an integrated perspective for the primary stage of schooling that draws upon insights from Sciences, Social Sciences and Environmental Education. The National Curriculum Framework 2005 indicates some of the objectives of teaching science and Social Sciences at the primary stage as follows:

- o to train children to locate and comprehend relationships between the natural, social and cultural environment;
- o to develop an understanding based on observation and illustration, drawn from lived experiences and physical, biological, social and cultural aspects of life, rather than abstractions;
- o to create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces
- o to nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people);
- o to develop an awareness about environmental issues;
- o to engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc.

Integrated Approach of Teaching EVS proposes themes that allow for a connected and interrelated understanding to develop the child's personality. This requires moving beyond traditional boundaries of disciplines and looking at priorities in a shared way. Each theme is woven in a web and continuation with the previous ones. It is a **suggested format** which indicates the key themes and sub themes along with their possible connections. This approach triggers the thinking skills of child and thus opens up new horizons in child's growth .These themes also indicate how adults can stimulate and actively support child's learning rather than restricting it.

#### Themes for a Child Centered and Integrated Approach

This syllabus web has been developed within a child centered perspective of themes that provide common interface of issues in social studies, sciences and environmental education. The syllabus for Classes III-V is woven around six common themes given below;

#### 1. Family and Friends:

The predominant theme on 'Family and Friends' encompasses four sub-themes:

- o Relationships.
- Work and Play
- o Animals
- o Plants

'Plants' and 'Animals' have consciously been included under the theme of 'Family and Friends' to highlight how humans share a close relationship with them and to also provide a holistic and integrated scientific and social perspective of studying them. Traditionally 'plants' or animals' are presented as autonomous categories, seen purely from the perspective of science. Here an attempt is made to locate them in a social and cultural context, and also to see how the lives and livelihoods of some communities, such as the gujjars, musahars or 'pattal'-makers, are closely connected with specific animals or plants. Moreover, in the universe of young children narratives of animals and plants play a significant role, and they can relate well even to the animated characters perceived as 'family and friends'. Our Bodies, Ourselves: 'Family and Friends' offer Sensitivity and Sensibility

This theme especially through its two subthemes – 'Relationships' and 'WORK AND PLAY 'allow the children to look at their body as part of their inner "SELF". In Class III in the sub-theme on Relationships, they discuss their relatives, who live with them and those who have moved away, to get a basic idea of relationships and changing households. They reflect on whom they admire among their relatives and for what qualities or skills, and describe on which occasions or festivals they meet most of them. The unit 'our bodies – old and young' helps them place their own body in relation to those of their family members, and asks them to notice differences that may occur with age In Class IV, the same sub-theme 'Relationships' has a unit on 'your mother as a child' to make children find out about who were her relatives with whom she lived then. They also think about their body in relation to their mother's; how a baby rat or kitten is related to its mother, and through a possible narrative, about children who may have been

adopted/looked after by foster parents, say, after a cyclone. By 'Feeling around with eyes shut' they explore their senses of touch, smell, etc. - not in isolation of the people or animals they care for - but by trying to identify all those living with them only by touching, hearing or smelling them. In Class V, the unit 'Whom do I look like?' helps them identify family resemblances, to look for any similarities in the face, voice, height, etc., and also to note particular traits such as 'who laughs the loudest?'. It goes on to how by 'feeling to read' on a Braille sheet, someone like Helen Keller could manage to overcome tremendous challenges, as described through accounts of her autobiography.

#### 2. Food

Theme Food begins in Class III with cooking, eating in family and about what we eat and what others eat, what animals eat etc. Class IV proceeds ahead to how food is grown, what different plants are known to students and how food reaches us. Class V advances to who grows the food, the hardships farmers may face while staying grounded to reality of own pangs of hunger or plight of people who do not get food. In addition, when food gets spoiled-explores spoilage and need for preservation of food. The changes in food habits and crops grown are analyzed through experiences of elders/ grandparents. Finally our mouth- how it tastes the food and even what helps in digesting food, sees the role of saliva in making food sweet on chewing. While food for plants also introduces the idea of some curious insect eating plants.

#### 3. Shelter

The **theme** Shelter begins in class III with explanations of need of a house and reasoning for the same houses in the same region. Class IV deals with the differences in urban and rural houses, slums and multistoreyed houses. Class V deals with variety of houses in different topographical regions.

#### 4. Water

Dealing with the important issue of water, class 3 deals with availability and storing of water. Class IV continues with water scarcity and its reasons. Conservation of water is dealt with in class V.

#### 5. Travel

The Objective was developed to help child on journey of ideas of expanding social and physical spaces into newer and unfamiliar terrains of often mind boggling and no less fascinating diversity.

The topics covered in class III encourage children to look at their own journeys and compare it with journeys of older people in family while in CLASS IV, the theme suggests travelling through deserts, hills, forests or big cities. Moreover it suggests resources to be brought into class rooms like the experiences of the children of migrating families and discussion of problems faced in starting new life in new city. In CLASS V, this theme takes children through rough and tough terrains of Himalayas, story of Bachchendri Pal and her hoisting flag after a trying expedition.

#### 6. Things we make and do

The area of Things we Make and Do is visualised as an important component as well as a common thread inherent in the process of understanding all the other themes. We humans make things not only to meet our needs but also to express ourselves in a variety of ways and to transcend our limitations. We also comprehend better when we do things ourselves. Often when a young child gets a toy for a gift, she has fun dismantling and later re-assembling it in a completely novel way as much as enjoying it as it is. When she is given a new book she is eager to add 'her pictures' into it as much as appreciating the book. Formal education as well as all that goes into 'being a good child' however discourages these acts. The theme of Things we Make and Do therefore is an opportunity to recharge the variety of energies/components that make learning more fulfilling, and where cognition is not an end but a process enriched by experience, failure, observation, success, etc. There is also a need to give our rich living traditions of art and craft, of 'making and doing things', their rightful place in our curricula. To teach environmental education activities, teachers are encouraged to use the acronym CARE. CARE stands for "Complexity, Aesthetics, Responsibility and Ethics".

*Complexity* - There are natural and human systems that are all connected. As teachers and students, how do we interact with and affect those systems?

Aesthetics - Help your students develop an appreciation for the natural world that will encourage them to learn about and protect the environment.

Responsibility - Provide opportunities for your students to take responsible actions and explore the environmental impact of what they do.

*Ethics* - As your students' understanding of environmental issues develop from participating in environmental education activities, they form an environmental ethic of their own.

Students are working towards:

- o sharing ways to rethink, refuse, reduce, reuse, and recycle
- o describing features of local plants and animals
- o comparing local plants & animals
- o describing attributes of their immediate environment (playground)
- o showing an awareness of the concept of change
- o identifying groups and places that are part of their lives

- o identifying characteristics of different local environments
- o showing responsible behavior in caring for their immediate environment

This child centered approach is not something which enhances rote memory but is something which gives practical approach to child. It helps in shaping the personality of child. Child realizes his inner self in coordination with his surroundings. It also helps him to increase his sensitivity towards helpless people .To sum up, these themes make the child in harmony with his inner self and realize his worth and is able to respect his surroundings and people in his life. The ultimate aim is to make him a responsible member of the family and finally a responsible citizen of the country.

# Academic Plan of

## ENVIRONMENTAL STUDIES

(Class IV)



## STATE INSTITUTE OF EDUCATION Sector 32, U T Chandigarh

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# ACADEMIC PLAN OF ENVIRONMENTAL STUDIES (Class IV)

Week	Content	Suggested Activity	Suggested Resource
Wk 1 (Apr)	Going to School  How the students in different regions reach school in morning  Different terrains and climate conditions in India  Different modes of transportation  Introduction to different types of bridges	<ul> <li>Locating Kerala, Rajasthan, Haryana on the map of India</li> <li>Identification of transport used in a particular area depending on the climatic and topographic conditions (Pages 1 - 10)#</li> <li>Listing of different types of bridges and their usage in particular region of country (Pages 1 - 10)#</li> <li>Describing the use of pulley (Page 2)#</li> <li>Making of trolley using a firki and a match box*</li> <li>Making of walnut Boat*</li> <li>Making a picture of Jugad*</li> </ul>	Political Map of India*

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#### Wk 2 (Apr)

#### Ear to Ear

- Different shapes of ear
- Visible/ Invisible ears of animals
- Distinction between animals with hair or without hair
- Distinction between animals which lay eggs or give birth to babies
- Identification of animals on the basis of pattern on skin
- Co-relation between visibility of ears; hair and reproductive pattern among animals

- Making ears of different animals with the help of clay /drawing pictures of ears of different animals / finding correct ears of animals (Pages 11,12,13)#
- Listing the animals whose ears can / cannot be seen (Page 12)#
- Identifying animals on the basis of pattern on skin (Page 14)#
- Co-relating visibility of ears; hair and reproductive pattern among animals (Page 15, 16)#
- Discussion on pets at home (Pages 17,18)#
- Drawing picture of pet at home (Page 18)#
- Discussing the extinct and endangered species of animals (Pages 19,20)#
- Pictures of endangered and extinct animals\*
- Visual clips on endangered species ( http://www.youtube.com/watch?v=LaQ d7Zfqj7g)

- Colouring the picture of Dinosaur.
- Making a Paper Bird (Page 20)#

	animals	Chhatbir Zoo and tabulating the on the basis of shapes of ears, pattern and their reproduction pattern.	•	Chhatbir Zoo 20 km away from Chandigarh.  Integrate with the lesson 'THE DONKEY', 'I HAD A LITTLE PONY' and 'THE MILKMAN'S COW' from MARIGOLD, English book of class IV.
Wk 3 (May)  • Group bel elephants • Animal ar interaction	(Page 25  naviour of  Discussi group w  Discussi  Making  Discussi own ent	ing the advantages of staying in a ith reference to elephants (Page 25)# ion on animal rides (Page 26-27)# a paper elephant (Page 28)# ing how humans use animals for their tertainment (Page 29)# ing the different uses of trunks by	•	Pictures of animals living in groups*  Worksheet *  Pictures of elephants using their trunks *

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Wk 4 (May)	<ul> <li>The Story of Amrita</li> <li>Sensitizing the students about the trees,</li> <li>Introduction of concept of deforestation and how it effects our environment,</li> <li>Role of Bishnois in saving environment</li> </ul>	<ul> <li>Narrating the story of Amrita (Page 31-35)#</li> <li>Locating Rajasthan on the map of India*</li> <li>Discussing the hunting of Birds and Animals (Page 36-37)#</li> <li>Writing about any one tree at home / School</li> </ul>	• Map of India*
		<ul><li>(Page 35)#</li><li>Discussing the uses of Khejadi tree (Page 37)#</li></ul>	Worksheet*
		Discussing about relationship between trees and birds	• Pictures of nests, birds on trees *
		• Listing the importance the trees in our lives*	• Importance of trees*
		Discussing methods to save trees	<ul> <li>Ways of saving trees*</li> </ul>
		Organising a Poster Making Competition on saving trees	
		Painting a tree*	
		Discussion on Chipko Movement*	
		Encouraging students to adopt a tree in the school and look after it.	Documentary movie on afforestation and deforestation. (http://www.youtube.com/watch?v=UkB)

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			• Integrate with "THE GIVING TREE" of "MARIGOLD, book class IV.
Wk 5 (May)	<ul> <li>Anita and the Honey Bees</li> <li>Education and dream school</li> <li>Becoming a bee keeper</li> <li>Type of bees and type of ants</li> <li>Development in bee keeping</li> <li>Problems of a girl child</li> </ul>	<ul> <li>Narrating the story of Anita (Pages 38-44)#</li> <li>Locating Bihar on the map of India.</li> <li>Discussing the role of different bees (Pages 44-45) #</li> </ul>	<ul><li>Map of India*</li><li>Worksheets*</li></ul>
		• Drawing a honeybee hive (Picture on Page 45)#	
		• Drawing an ant in the notebook and colouring it (Page 46 )#	
		• Making insects by using peanut shells and colouring them (Page 46)#	
		• Visiting the school garden to know how ants move in a line, their colour & size, food eaten by them and work done by them (Page 46)#	
		• Students may be asked to match the ants and bees with their description*	
		• Visiting a bee-farm (if possible)	
		Discussing the first aid for bee's sting*	

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# Wk 6

#### Omana's Journey

- (July). Children's experience about train journey
  - How to prepare for the journey
  - Importance of ticket,
  - View of railway station at different places,
  - Facilities available in the train,
  - Various do's and don'ts during train journey

- Narrating the story of Omana's Journey (Pages 48-51)#
- Discussing the happenings in the compartment of a train during the journey (Page 49)#
- Visiting a railway station (if possible)
- Describing the things and the people involved in various activities on a Railway Station (Page52)#
- Locating Gandhidham, Ahmadabad Valsad in Gujarat and Kozhikode in Kerala on the map of India.
- Making model of train with the help of match box (Page 75)#
- Enlisting the things required during a train journey\*
- Discussing the various Do's and Don'ts during train journey\*

- Pictures of train and railway station\*
- Cross word puzzle \*
- Political Map of India\*

Wk 7 (July)	<ul> <li>From the Window</li> <li>Different types of bridges, tunnels and level crossings,</li> <li>Diversity in languages,</li> </ul>	• Narrating the story of Omana's Journey (Pages 53-59)#	
	clothes, food and landforms of different states of India	• Locating Kerala, Gujarat, Maharashtra and Goa on the map of India.	Political Map of India*
		Naming various fuels used in different trains.	<ul> <li>Pictures of steam engines, (coal), electric engines*</li> <li>Worksheets *</li> </ul>
		<ul> <li>Drawing pictures of signs and signals used during train journey*</li> </ul>	
		• Making models of tunnels, Railway Bridge, Transport Bridge, Level Crossing etc.	• Pictures of various types of bridges*
		Discussing about different states of India – their language, clothes, food and landforms	<ul> <li>Physical map of India*</li> <li>Pictures depicting culture of Kerala, Goa, Maharashtra*</li> <li>Worksheets*</li> </ul>
	Reaching Grandmother's House		
***************************************	<ul> <li>Various modes of transportation in Kerala</li> <li>Importance of train ticket,</li> </ul>	• Narrating the story of Omana's Journey from railway station to home (Pages 60-62) #	
	Filling of railway reservation/ cancellation forms,	• Enlisting the things required during a boat journey.*	

Use of railway time-table	<ul> <li>Locating Kerala on map of India</li> <li>Discussing sceneries , culture, wild life of different states of India (Kerala, Goa, Maharashtra)</li> <li>Discussing topographic conditions of Kerala (Pages-60-62)#</li> </ul>	<ul> <li>Political Map of India*</li> <li>Pictures depicting culture, sceneries, wildlife of different states of India.*</li> <li>Physical map of India*</li> <li>Worksheets*</li> </ul>
	<ul> <li>Reading a Railway Ticket and discussing the information provided on it (Page-63)#</li> <li>Reading the train time Table and discussing the information provided on it (Page-64)#</li> </ul>	
Wk 8 (July)  • Changing Families • Changes in the family due to • birth of a new baby, • transfer of a family from one place to another, • a wedding in the family • Comparison in families of	<ul> <li>Discussion on changes in the family due to         <ul> <li>birth of a new baby,</li> <li>transfer of a family from one place to another,</li> <li>a wedding in the family</li> <li>(Pages 66-73)#</li> </ul> </li> </ul>	• Worksheets on Pages (66 -73)#
yesterdays, these days and of coming days i.e. tomorrow's family.	• Discussing the concept of a Joint and a	Pictures of a Joint and a Nuclear family
<ul> <li>Importance of going to school</li> <li>Understanding of marriage laws</li> </ul>	Pasting pictures of the wedding attended recently in the note book (Page 71)#	Wedding album available at home

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	<ul> <li>Preparing a list of changes in the family in last ten years on the basis of information gathered from senior family members (Page 74)#</li> <li>Discussion on the marriage laws and importance of going to school*</li> <li>Discussing the different stages of life of a girl*</li> </ul>	• Worksheet on (Page 74) #
<ul> <li>Wk 9 (July)</li> <li>Different games at home and school (indoor and outdoor games)</li> <li>Importance of rule and number of players</li> <li>Idea of fair play and restrictions on games</li> <li>Discrimination in games on the basis of gender, caste and class ,</li> <li>Understanding of Kabaddi game,</li> <li>Importance of coach in uplifting the any game</li> </ul>	<ul> <li>Discussion on importance of rules of games (Pages 78 – 79)#</li> <li>Introduction to the game of Kabaddi (Pages 79 - 80)#</li> <li>Narrating story of the three sisters who were Kabaddi players (Pages 81-83)#</li> <li>Discussion on discrimination in games on the basis of gender, caste and class (Pages 81-83)#</li> <li>Enlisting various indoors and outdoors games.</li> <li>Pasting pictures of famous sport personalities in the note book and writing five lines.</li> <li>Drawing the picture of a favorite game and writing five lines on it.</li> </ul>	<ul> <li>Worksheet on Page (78-79)#</li> <li>Pictures of local and traditional games*</li> <li>Newspaper and sports magazines*</li> <li>Worksheet*</li> <li>Worksheet*</li> </ul>

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	Dividing class into two groups and playing any outdoor game with proper rules and regulation.	
<ul> <li>Wk 10 (Aug)</li> <li>Different flowering plan and the seasons</li> <li>Different flowers on bas of shapes, colours, petals aromas etc.</li> <li>Uses of flowers in daily l</li> </ul>	of India, the places famous for flowers, and introducing the Valley of Flowers (Page 84)#  • Introduction to Madhubani Pointings	<ul> <li>Labelled Diagram of flower*</li> <li>Worksheets *</li> </ul>

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		Making a flower using coloured paper*	
		• Planting any flowering plant and observing its bud blossoming into flower.	School or home garden
			(This Chapter may be done in the Spring Season.)
Wk 11 (Aug)	<ul> <li>Changing Times</li> <li>Concept of changing society from time to time and change in living standards</li> </ul>	• Narrating the story of Chetan Das (Pages 96-101)#	
	<ul> <li>Type of houses,</li> <li>Cooking methods - traditional and modern</li> </ul>	Showing the map of India before and after partition and locating Pakistan	Map of India before and after partition*
	Sewerage system	Discussing the different types of houses as described in the chapter and listing the differences	i i
		• Showing the samples of the material used in construction in earlier times and now a days. (Pages 96-101) #	
		Discussing the traditional and modern ways of cooking and enlisting the differences (Pages 99-100)#	Picture of Kerosene and Gas stove*
		• Naming the persons involved in the construction of a house and listing the tools used by them (Pages 102-103)#	
		• Enlisting the differences in the toilets used in	Pictures of Indian and Foreign style of

		past and present (Pages 99-101)#	Toilet Seats.*
		Making models of different types of houses (Kachha and Pakka House)	Pictures of a Kachha and Pakka House*
		• Visiting a construction site nearby (if possible) followed by discussion in the class room.	
		Making the layout plan of a house	
			• Refer to Chapter 2 'SAADA NAVAN GHAR' of Punjabi text book of Ist language of Class IV.
XX/I_ 12	A River's Tale		
Wk 12 (Aug)	<ul> <li>River's Tale</li> <li>River as a source of water</li> <li>The origin and journey of a river</li> </ul>	• Tracing the origin /source and journey of any river of India (Pages 106-110)#	River on physical map of India.*
	• Water pollution - its causes.	Naming the important rivers in India*	
	<ul><li>Ways of cleaning water</li><li>Importance of safe drinking</li></ul>	• Story writing on a given picture (Page 106)#	
	water.	• Discussing the causes of Water pollution (Page 110)#	<ul> <li>Pictures showing sources of Water Pollution*</li> <li>Worksheets*</li> </ul>
		Holding the slogan writing competition on the use of safe drinking water.	
		Demonstrating the things that dissolve / do not	
		dissolve in water. (Pages 110-111)#	
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		<ul> <li>Discussing the ways of cleaning water to make it safe for drinking (Pages 112)#</li> <li>Drawing pictures showing the ways of cleaning the water (Pages 112)#</li> <li>Showing the effect of water pollution on animals / plants that live in water*</li> </ul>	water*
Wk 13 (Aug)	<ul> <li>Basva's Farm</li> <li>Steps of raising a crop</li> <li>Identification of agriculture implements</li> <li>Work of the farmer</li> </ul>	<ul> <li>Discussing about process of raising a crop by narrating the story of Basava's Farm (Pages 113-117)#</li> <li>Identifying the different tools used in farming (Page-116)#</li> </ul>	<ul> <li>Pictures/illustrations/flash cards of tools used in agriculture*</li> <li>Worksheet*</li> </ul>
		<ul> <li>Arranging pictures of steps of raising a crop in proper sequence (Page 118)#</li> <li>Showing different modes of transport used to carry fruits and vegetables to market.*</li> </ul>	
		Teacher may fix time with school gardener so that he may show the children the various implements used by him to prepare the soil and discuss the methods of gardening.	School Gardener

#### Wk 14 From Market to Home (Sept) • Daily routine of the • Narrating the story 'From Market to Home'. vegetable seller (Pages 119-122)# • Value of time Wavs • Visiting a Vegetable Market. ofkeeping vegetables fresh Worksheets \* • Differentiation Differentiating between fruits / Vegetables on between fruits/ Vegetables on the the basis of colour, shape, texture and time for which these stay fresh etc. (Pages 124-126)# basis of colour, shape, texture and fragrance etc. • Pictures of measures used in measuring Discussing the various measures used in Measures used vegetables and fruits\* weighing vegetables\* weighing/counting vegetables/fruits. Making designs using Vegetable blocks\* Discussing the ways of keeping vegetables fresh\*

# LAST THREE WEEKS OF SEPTEMBER AND FIRST WEEK OF OCTOBER ARE FOR REFLECTIVE ASSESSMENT AND OTHER ACTIVITIES

# Wk 15 (Oct) Introduction to the world of birds and animals, Making of nests, variety of nests, laying of eggs and feeding young ones, Different types of beaks / feet of birds according to Reading the Letter of Gijubhai from the book and Discussion on various types of birds and differentiating them on basis of beaks, feather, feet etc (Pages 127-130)# Discussion on variety of nests\* Pictures of different types of nests\* Worksheets \*

	<ul> <li>Different types of teeth of Animals according to food they eat</li> </ul>	<ul> <li>Making a nest by using straws stripes of things/fabrics, short sticks, dry grass, pieces of yarn, feathers, dried petals, cotton, wool or pieces of clothes (Page 131)#</li> </ul>	Worksheet*
		<ul> <li>Making a small paper bird*</li> <li>Making Charts of Animals living on land &amp; in water and birds on trees (Pages 132-133)#</li> </ul>	Pictures of animals living on land & in water and birds*
		• Showing the feet /claws of different birds and discussing about their use. (Taking Students to Biology Laboratory) (Page 133)#	
		• Showing the different types of beaks of birds and teeth of animals and discussing about their use. (Taking Students to Biology Laboratory) (Page 134)#	• Worksheet*
		• Discussing the different types of animal teeth and their use for different purposes (Page 135)#	
		Visiting Chhatbir Zoo	Chhatbir Zoo 20 km away from Chandigarh.
Wk.16 (Oct)	<ul> <li>Nandita in Mumbai</li> <li>Different life styles / living Standards of rural and</li> </ul>	Locating Mumbai in the map of India.	Map of India*

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	<ul> <li>urban area</li> <li>Difference between villages and cities in regard to water supply and sanitation</li> <li>Problems of slums especially in Mumbai</li> <li>Problem of shifting to a new place in Mumbai</li> <li>Maternal relations</li> </ul>	<ul> <li>Naming the various maternal relations.</li> <li>Comparing Mama's House at Mumbai and Nandita's House at village and drawing the pictures of the two houses (Page 138)#</li> <li>Scene at public tap in a slum area may be enacted (Page 139)#</li> </ul>	<ul> <li>Worksheets*</li> <li>Videos on shortage of water http://www.youtube.com/watch?v=TcRu4n NMwy0 http://www.youtube.com/watch?v=4jjwKpP G-Jk</li> </ul>
		• Drawing different types of localities like locality in a village, in slums and colony with multi-storeyed flats. Writing two facilities and two problems faced by each of them (Pages 142 - 143 )#	
		<ul> <li>Discussing the different types of houses (Page 143)#</li> <li>Discussing the problem of shifting to a new place in Mumbai due to various reasons (Page 145)#</li> </ul>	
Wk 17 (Oct)	<ul> <li>Too Much Water, Too Little Water</li> <li>Importance of clean water</li> <li>Harmful effects of polluted water.</li> <li>Water borne diseases.</li> <li>Water Games</li> <li>Importance of water</li> </ul>	<ul> <li>Narrating stories given in the chapter followed by discussion on following ideas:         <ul> <li>How water gets polluted</li> <li>Different ways to clean water.</li> <li>Ways we tend to waste water</li> <li>Methods of water conservation.</li> <li>(Pages 146-150)#</li> </ul> </li> </ul>	

		<ul> <li>(Pages 151 - 155)#</li> <li>Discussing about water borne diseases and collecting data related to it (Page 155)#</li> </ul>	
		• Narrating story on the Children Panchyat (Page 156)#	
		• Making Model of a house with its rooftop filled with water to show how through pipelines this water can be supplied for use*	
		• Locating Karnataka, Andhra Pradesh, Maharashtra on political map of India.*	Political Map of India*
		• Discussing the methods of water conservation*	Pictures of different ways of water conservation*
			Refer to Chapter 22 'PAANI' of Punjabi book of Ist Language of Class IV.
Wk 18 (Nov)	<ul> <li>Abdul in the Garden</li> <li>Different functions of roots</li> <li>Prop roots in a Banyan tree</li> <li>Effect of deforestation, and laws preventing it.</li> <li>Growth in living things</li> </ul>	<ul> <li>Narrating the story 'Abdul in the garden' followed by discussion on various functions of roots. (Pages 158-162)#</li> <li>Classifying vegetables into roots, stem, flower etc. (Page160)#</li> </ul>	Activity to observe roots of the plant*
L			

• Preparation of ORS (Page 151)#

Carrying out Water survey in school

conservation

application

• Preparing of ORS and its

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		<ul> <li>Identifying and discussing the various types of roots eaten as food (Page160)#</li> <li>Growing sprouts from moong dal, channa, rajma (Pages 162-163)#</li> </ul>	•	Pictures of different edible of roots * Worksheet*  Moong dal, channa, rajma and damp cloth.
		• Discussion on how roots grip water (Pages 159-164)#		
		Discussion on different types of roots and their importance *		Pictures of different types of roots of plants* Worksheets*
		• Listing the things that grow(Pages 164-165).#	•	Refer to Unit 8 'The Giving Tree' of English Book Marigold of Class IV.
Wk 19 (Nov)	<ul> <li>Eating Together</li> <li>Importance of community eating</li> <li>Names of various festivals</li> </ul>	Drawing a picture and writing on a festival celebrated in their family.		
	and their importance specially Bihu of Assam	Celebrating a festival in the class.	•	Local festival may be considered
	<ul> <li>Mid Day Meal scheme</li> <li>Importance of balanced diet</li> </ul>	• Labeling and locating Assam, Tamil Nadu and Punjab on the map of India and writing names of the festivals celebrated there.		Political Map of India*
		• Enlisting the special food and dresses worn on Baisakhi, Bihu, Pongal etc.*	•	Pictures on culture of different states*
		• Introduction to the Mid day Meal scheme and writing the Menu of Mid day Meal (Page 73)#	•	Worksheets *

Wk 20 (Nov)	<ul> <li>Food and Fun</li> <li>Community eating like in a Gurudwara,temple,etc</li> <li>Life in boarding school</li> </ul>	<ul> <li>Visiting a Gurudwara or a Temple and having langar followed by discussion on the experience of community eating</li> <li>Writing a note on the observation about food preparation at Gurudwara, paste or draw pictures associated with it (pages 175-177)#</li> </ul>
		<ul> <li>Discussing the differences between set up of a boarding school and normal school</li> <li>Pictures .related to school hostels*</li> <li>Worksheets *</li> </ul>
Wk 21 (Nov)	<ul> <li>The World in My Home –</li> <li>Highlighting different interests of family members</li> <li>Different rules for girls and boys</li> <li>The value of honesty ,</li> <li>Behavior of elders that hinder the progress</li> <li>Distinction between good and bad touch</li> </ul>	<ul> <li>Narrating the different stories given in the Chapter (Pages 179-185)#</li> <li>Making the list of family members and writing about the different roles played by them *</li> <li>Discussing about gender discrimination with sensitivity.</li> <li>Pictures depicting discrimination*  Worksheets *</li> <li>Role play on distinction between good and bad touch*</li> <li>Arranging a session with the School Counseller.</li> </ul>

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# THE ENTIRE MONTH OF DECEMBER AND FIRST TWO WEEKS OF JANUARY ARE FOR REFLECTIVE ASSESSMENT AND OTHER ACTIVITIES

Wk 22 (Jan)	traditional occupations in different parts of India like Carpet weaving, Itr production, Art of weaving Silk sarees, etc     Danger of extinction of traditional handicrafts	<ul> <li>Visiting a Handicrafts Exhibition.</li> <li>Making or pasting pictures of different handicrafts works on scrap file (Page 190)#</li> <li>Discussing and Writing the steps of weaving a saree (Page 187)#</li> <li>Discussing how talent of handicrafts pass from one generation to another (Pages 189-190)#</li> <li>Discussion on various tools used for traditional handicrafts *</li> </ul>	<ul> <li>Local handicraft mela or exhibiton</li> <li>Pictures of different handicrafts existing in India*</li> <li>Pictures of tools *</li> </ul>
		Locating Pochampalli on the map of India*	Map of India*
Wk 23 (Jan)	<ul> <li>Home and Abroad</li> <li>Information about Abu Dhabi and Indian state Kerala,</li> <li>Life of desert and life of coastal area included climate, dresses and currency</li> <li>Different modes of travel</li> </ul>	<ul> <li>Making a scrap file on different cultures, dresses, soils, currency etc of Kerala and Abu Dhabi.(Page-195)#</li> <li>Discussion on currencies (Pages 196-197)#</li> <li>Showing and discussing different modes of travel.*</li> </ul>	<ul> <li>Pictures of dresses, soils, currency etc of Kerala and Abu Dhabi *</li> <li>Pictures of Land, Water and Air transports*</li> </ul>
		Locating Kerala and Abu Dhabi on the map of	Map of India and Map of world*

		<ul> <li>world.</li> <li>Recognising the currency notes of different countries (Page 198) #.</li> </ul>	•	Worksheets *
Wk 24 (Feb)	<ul> <li>Spicy Riddles</li> <li>Importance and uses of spices in daily life</li> <li>Spices for preparing garam masala</li> </ul>	<ul> <li>Reading the riddles given in the Text Book in the class followed by discussion on their properties and uses. (Pages 199-201)#</li> <li>Bringing spices used in kitchen to the classroom and recognising the spices by smelling and touching (Page 202 )#</li> <li>Listing the Indian names of the spices used in daily life.</li> <li>Enlisting the material used for preparing Garam Masala (Page 202 )#</li> <li>Preparing Fruit / Allu chat (Page 203 )#</li> </ul>	•	Amchur, Chilly powder. Worksheets *
	<ul> <li>Defence Officer: Wahida</li> <li>Life in defense forces</li> <li>Contribution of women' in society</li> <li>Life history of Wahida as Lt. Commander</li> </ul>	<ul> <li>Narrating the story of Defence Officer:         Wahida and writing about life in Navy (Page 204-209)*</li> <li>Locating Rajouri in map of Jammu and Kashmir.*</li> </ul>	•	Map of India showing Jammu and Kashmir.*

		<ul> <li>Writing the rankings in Defence Services.*</li> <li>Enlisting women in important occupations with examples*</li> </ul>	<ul><li>Worksheet *</li><li>Worksheet *</li></ul>
Wk 25 (Feb)	<ul> <li>Chuskit goes to School -</li> <li>Problems of physically challenged ,</li> <li>Education for all</li> <li>Problem in hilly areas and climatic conditions</li> </ul>	<ul> <li>Narrating the story of Chuskit (Page 210-214) #</li> <li>Collecting some information about Ladakh and locating in the map of India*</li> <li>Discussing the people with special needs *</li> <li>Teacher may invite a special child and ask him to discuss the problem he faces in daily life</li> <li>Discussion on Wheel Chair, Ramp and Stairs and their utility *</li> </ul>	<ul> <li>Map of India*</li> <li>Pictures of Ladakh*</li> <li>Pictures of children with special needs *</li> <li>Worksheets*</li> <li>Pictures of Wheel Chair, Ramp and Stairs*</li> </ul>

LAST TWO WEEKS OF FEBRUARY ARE FOR REFLECTIVE ASSESSMENT AND OTHER ACTIVITIES.

#### **OBJECTIVES OF TEACHING ENVIRONMENTAL STUDIES**

#### Introduction

The National Curriculum Committee had recommended in the 1975 policy document "The Curriculum for the Ten-year School: A Framework", that a single subject 'Environmental Studies' be taught at the primary stage. It had proposed that in the first two years (Class I-II) Environmental Studies will look at both the natural and the social environment, while in Classes III-V there would be separate portions for social studies and general science termed as EVS Part I and Part II. The National Policy on Education 1986 and the National Curriculum Framework (NCF) 1988 also posited the same approach for the teaching of Environmental Studies at the primary stage. Contemporary research on how children learn to make sense of the world around them and how pedagogy in primary school can enable them to develop scientific abilities and understanding in consonance with social and environmental concerns has further supported this integrated structure. The NCF 2000 had recommended that Environmental Studies be taught as an integrated course for the entire primary stage, instead of in two distinct parts devoted to science and social studies in Classes III-V. The present NCF 2005 has called for the continuation and further strengthening of this integrated approach for Environmental Studies during the primary years.

#### NCF 2005 and Objectives of Environmental Studies

The present syllabus is designed to forge an integrated perspective for the primary stage of schooling that draws upon insights from Sciences, Social Sciences and Environmental Education. The National Curriculum Framework 2005 indicates some of the objectives of teaching science and Social Sciences at the primary stage as follows:

- o to train children to locate and comprehend relationships between the natural, social and cultural environment;
- o to develop an understanding based on observation and illustration, drawn from lived experiences and physical, biological, social and cultural aspects of life, rather than abstractions;
- o to create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces
- o to nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people);
- o to develop an awareness about environmental issues;
- to engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc.

Integrated Approach of Teaching EVS proposes themes that allow for a connected and interrelated understanding to develop the child's personality. This requires moving beyond traditional boundaries of disciplines and looking at priorities in a shared way. Each theme is woven in a web and continuation with the previous ones. It is a **suggested format** which indicates the key themes and sub themes along with their possible connections. This approach triggers the thinking skills of child and thus opens up new horizons in child's growth. These themes also indicate how adults can stimulate and actively support child's learning rather than restricting it.

### Themes for a Child Centered and Integrated Approach

This syllabus web has been developed within a child centered perspective of themes that provide common interface of issues in social studies, sciences and environmental education. The syllabus for Classes III-V is woven around six common themes given below;

### 1. Family and Friends:

The predominant theme on 'Family and Friends' encompasses four sub-themes:

- o Relationships.
- o Work and Play
- Animals
- o Plants

'Plants' and 'Animals' have consciously been included under the theme of 'Family and Friends' to highlight how humans share a close relationship with them and to also provide a holistic and integrated scientific and social perspective of studying them. Traditionally 'plants' or animals' are presented as autonomous categories, seen purely from the perspective of science. Here an attempt is made to locate them in a social and cultural context, and also to see how the lives and livelihoods of some communities, such as the gujjars, musahars or 'pattal'-makers, are closely connected with specific animals or plants. Moreover, in the universe of young children narratives of animals and plants play a significant role, and they can relate well even to the animated characters perceived as 'family and friends'. Our Bodies, Ourselves: 'Family and Friends' offer Sensitivity and Sensibility

This theme especially through its two subthemes – 'Relationships' and 'WORK AND PLAY 'allow the children to look at their body as part of their inner "SELF'. In Class III in the sub-theme on Relationships, they discuss their relatives, who live with them and those who have moved away, to get a basic idea of relationships and changing households. They reflect on whom they admire among their relatives and for what qualities or skills, and describe on which occasions or festivals they meet most of them. The unit 'our bodies – old and young' helps them place their own body in relation to those of their family members, and asks them to notice differences that may occur with age In Class IV, the same sub-theme 'Relationships' has a unit on 'your mother as a child' to make children find out about who were her relatives with whom she lived then. They also think about their body in relation to their mother's; how a baby rat or kitten is related to its mother, and through a possible narrative, about children who may have been

adopted/looked after by foster parents, say, after a cyclone. By 'Feeling around with eyes shut' they explore their senses of touch, smell, etc. - not in isolation of the people or animals they care for - but by trying to identify all those living with them only by touching, hearing or smelling them. In Class V, the unit 'Whom do I look like?' helps them identify family resemblances, to look for any similarities in the face, voice, height, etc., and also to note particular traits such as 'who laughs the loudest?'. It goes on to how by 'feeling to read' on a Braille sheet, someone like Helen Keller could manage to overcome tremendous challenges, as described through accounts of her autobiography.

### 2. Food

Theme Food begins in Class III with cooking, eating in family and about what we eat and what others eat , what animals eat etc. Class IV proceeds ahead to how food is grown, what different plants are known to students and how food reaches us. Class V advances to who grows the food , the hardships farmers may face while staying grounded to reality of own pangs of hunger or plight of people who do not get food. In addition, when food gets spoiled-explores spoilage and need for preservation of food. The changes in food habits and crops grown are analyzed through experiences of elders/ grandparents. Finally our mouth- how it tastes the food and even what helps in digesting food, sees the role of saliva in making food sweet on chewing. While food for plants also introduces the idea of some curious insect eating plants.

### 3. Shelter

The **theme** Shelter begins in class III with explanations of need of a house and reasoning for the same houses in the same region. Class IV deals with the differences in urban and rural houses, slums and multistoreyed houses. Class V deals with variety of houses in different topographical regions.

### 4. Water

Dealing with the important issue of water, class 3 deals with availability and storing of water. Class IV continues with water scarcity and its reasons. Conservation of water is dealt with in class V.

### 5. Travel

The Objective was developed to help child on journey of ideas of expanding social and physical spaces into newer and unfamiliar terrains of often mind boggling and no less fascinating diversity.

The topics covered in class III encourage children to look at their own journeys and compare it with journeys of older people in family while in CLASS IV, the theme suggests travelling through deserts, hills, forests or big cities. Moreover it suggests resources to be brought into class rooms like the experiences of the children of migrating families and discussion of problems faced in starting new life in new city. In CLASS V, this theme takes children through rough and tough terrains of Himalayas, story of Bachchendri Pal and her hoisting flag after a trying expedition.

### 6. Things we make and do

The area of Things we Make and Do is visualised as an important component as well as a common thread inherent in the process of understanding all the other themes. We humans make things not only to meet our needs but also to express ourselves in a variety of ways and to transcend our limitations. We also comprehend better when we do things ourselves. Often when a young child gets a toy for a gift, she has fun dismantling and later re-assembling it in a completely novel way as much as enjoying it as it is. When she is given a new book she is eager to add 'her pictures' into it as much as appreciating the book. Formal education as well as all that goes into 'being a good child' however discourages these acts. The theme of Things we Make and Do therefore is an opportunity to recharge the variety of energies/components that make learning more fulfilling, and where cognition is not an end but a process enriched by experience, failure, observation, success, etc. There is also a need to give our rich living traditions of art and craft, of 'making and doing things', their rightful place in our curricula. To teach environmental education activities, teachers are encouraged to use the acronym CARE. CARE stands for "Complexity, Aesthetics, Responsibility and Ethics".

*Complexity* - There are natural and human systems that are all connected. As teachers and students, how do we interact with and affect those systems?

Aesthetics - Help your students develop an appreciation for the natural world that will encourage them to learn about and protect the environment

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This child centered approach is not something which enhances rote memory but is something which gives practical approach to child. It helps in shaping the personality of child. Child realizes his inner self in coordination with his surroundings. It also helps him to increase his sensitivity towards helpless people .To sum up, these themes make the child in harmony with his inner self and realize his worth and is able to respect his surroundings and people in his life. The ultimate aim is to make him a responsible member of the family and finally a responsible citizen of the country.

### Sincere Thanks to

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# Page 22 of 26

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# Academic Plan of

# ENVIRONMENTAL STUDIES

(Class V)



# STATE INSTITUTE OF EDUCATION Sector 32, U T Chandigarh

# ACADEMIC PLAN OF ENVIRONMENTAL STUDIES (Class V)

Week	Content	Suggested Activity	Suggested Resource
Wk.1 (Apr)	Super Senses  > Five senses and organs involved > Behaviour of animals > Concept of hibernation	<ul> <li>Recapitulating the names and functions of Five sense organs in humans</li> <li>Discussing different senses of Animals (Page 1)#</li> <li>Observing and recording the behaviour of Ants after dropping something sweet (Page 2)#</li> <li>Discussion on smelling power of Mosquitoes and Dogs (Page 3)#</li> <li>Listing the various smells liked and disliked by students (Page 4 - 5)#</li> <li>Discussion on different birds with reference to their eyes (with special reference to the super eyesight of various birds) (Page 6)#</li> <li>Differentiating between looking with one eye or both eyes (Page 6)#</li> </ul>	<ul> <li>Pictures of five sense organs*</li> <li>Worksheets *</li> </ul>
		<ul> <li>Discussion on colours as seen by different Animals / Birds (Page 7)#</li> <li>Listing animals with ears bigger than ours (Page 8)#</li> </ul>	• Worksheet*

		• Enacting the link between the size of animals' ears and their hearing (Page 8)#		
		• Mimicry of sounds of animals in different situations. (Page 9-10)#		Video on animal sounds (http://www.youtube.com/watch?v=t99ULJjCsaM)
		• Developing our own language of sounds and playing blind fold game and the students may be asked to recognize on the basis of the sounds they make (Page10#)		Group activity*
		• Introducing the concept of HIBERNATION (Page 10)#	•	Pictures of animals in hibernation.* Worksheet*
		• Expressing the sleeping time of animals (Page 11)#		
		• Discussing the special features of TIGER (Page 12)#		
		• Listing reasons for hunting various wild animals ( Page 13)#		
		• Making a paper dog (Page 14)#		
		• Locating national parks on map of India*	•	Map of national parks in India*
Wk.2 (Apr)	A Snake Charmer's Story  > Studying the communities dependent on animals with special reference to snake	Showing the pictures and visual clips of a Snake charmer (Page 16)#	•	Picture of Snake charmer* Visual clips of Snake Charmer in action (http://www.youtube.com/

	charmers  Changing patterns of wild and domestic animals  Sensitizing the students against cruelty to animals	<ul> <li>Showing the musical instruments used by snake charmers*</li> <li>Narrating the story of Roshan Nath (Page 16 – 18)#</li> <li>Discussing the attitude of humans towards the animals and understanding the animal cruelty (Page 19)#</li> <li>Discussion on laws of for protection of animals.</li> <li>Enlisting and recognizing the poisonous snakes</li> </ul>	instruments used by snake charmers*  • Worksheets*
		<ul> <li>Page 20)#</li> <li>Collecting information about the people who keep animals for their livelihood. (Page 20 – 21)#</li> <li>Making of a snake puppet (Page 21)#</li> </ul>	Pictures of Snake Fangs*
Wk.3 (May)	From Tasting To Digesting  Talking about different tastes  Process of digestion  Behavior during hunger, food habits  Balanced Diet	<ul> <li>Explaining the concept of mouth watering with the help of activity (Page 23)#</li> <li>Introducing the concept of Taste Buds (Page 24 -25)#</li> <li>Drawing of diagram of tongue and showing taste buds on it.</li> </ul>	<ul> <li>Activity*</li> <li>Samples of Lemon Juice, Sugar, Salt, Bitter Guard, Chillies etc.</li> <li>Labeled diagram of Tongue, showing taste buds*</li> </ul>

		Observing and recording the taste and smell of different food items (Page 25)#	•	Samples (realia) of food items like Saunf, Garlic, Onions, Chillies etc.,
		Observing the difference between simple chewing and chewing well (Page 25)#	•	Activity (Page 25 - 26)#
		• Drawing the path of the food through the human body. (Page 27)#.	•	Worksheets *
		• Enacting the feeling of hunger (Page 27)#		
		• Discussing the use of Glucose (Page 28,29)#		
		• Reciting the poem <i>Martin's Window</i> (Page 29)#		
		• Narrating the story of Beaumont to explain digestive system (Pages 30-31)#		
		<ul> <li>Narrating the story of Rashmi and Kailash to explain the importance of healthy food. (Page 32 - 33)#</li> </ul>		
		• Narrating the story of Gomti to explain the proper utilization of food (Page 34)#		
		Showing a chart of balanced diet*	•	Chart of balanced diet*
Wk. 4 (May)	Mangoes Around The Year  ➤ Food storage and wastage  ➤ Information printed on food products like-expiry,	• Naming the food items those get spoiled in short time and can be kept for long time. (Pages 35-36)#		
	weight, date of packing  Mangoes-ripe and unripe	Reading the information given on the packets of biscuits e.g. date of manufacturing, expiry dates	•	Wrappers of the Biscuits provided during mid day

	<ul> <li>and products prepared from mangoes</li> <li>Storage and preservation of food items</li> </ul>	<ul> <li>etc.</li> <li>Observing and recording the changes in bread due to spoilage produced by microorganism (Page 37)#</li> </ul>		meal.
		<ul> <li>Discussing preservation of food items like Milk, Pickles etc. used at home (Page 38,40)#</li> <li>Narrating the story 'Summer Treat – Mamidi tandra' (Page 38-40)#</li> <li>Write down the recipe of making mango CHUTNEY (Pages 39,40)#</li> <li>Introducing the concept of Milk Pasteurisation*</li> </ul>	•	Methods of preservation *
		• Listing the food items and their signs of spoilage*	•	Worksheet*
Wk.5 (May)	Seeds And Seeds  > Germination of seeds > Seed shapes, size ,colour and texture > Method of sprouting > Dispersal of seeds through air, water, birds and human beings	<ul> <li>Listing the things that are soaked in water before cooking (Page 42)</li> <li>Showing the importance of proper conditions for sprouting with the help of an activity and recording the observations (Page 43)#</li> <li>Planting seeds and recording the changes for two weeks (Page 44 - 45)#</li> <li>Discussing the characteristics of a Pitcher Plant (Page 46)#</li> </ul>		Documentary on germination of seeds (national geographic.com)  Visual of a Pitcher Plant (http://www.youtube.com/watch?v=bDCUnxcJYSM
			•	(http://w

		size and texture (Page 47)#	different types of seeds*
		• Listing the uses of various types of seeds (Page 47)#	
		• Drawing of diagram of fruits with (a) few seeds (b) many seeds	• Pictures of dissected fruits- Orange, Mango, Watermelon*
		• Discussing the concept of dispersal of seeds (Pages 48,49)#	
		• Narrating the poems on the countries of origin of various plants (Page 50)#	
	Last week	of May for Assessment and other activities.	L
Wk.6 (july) Wk.7 (July)	<ul> <li>Every Drop Counts</li> <li>Traditional ways of conservation of water, its need in present scenario</li> </ul>	<ul> <li>Narrating the story of Ghadsisar and <i>Albirun</i>i, the famous traveler and discussing the system of drainage of Rain Water in India in ancient times. (Page 51 - 52)#</li> <li>Locating Uzbekistan in the map of ASIA</li> </ul>	Map of Asia or world
		Observing the difference between <i>Wells</i> and <i>Step Wells</i> (Page 53)#	map of fisher of worker
		• Showing the pictures and discussing the customs related to water (Pages 54-55)#	• Pictures of the Customs related to water*
		Showing the pictures of various types of pots and	Pictures of various types of

Recognizing the seeds on basis of their colour,

Realia or pictures of

stone carvings near the place of drinking water (Page 55)#	pots and stone carvings near the place of drinking water*
Discussing the reasons why wells are drying (Page 56)#	
• Making a list of sources of water for our daily need (Page 57)#	• Pictures of sources of water*
• Reading a water bill and discussing and recording its information in class (Page 58 - 59)#	• Water bill*
<ul> <li>Organizing poster making competition on saving water</li> </ul>	
• Narrating the story of 'Darki Mai' to show importance of rain water harvesting (Page 59)#	
• Making a list of rain water harvesting methods*	<ul> <li>Pictures of different methods of water harvesting in ancient times (wells, step wells, boalis etc. *</li> <li>Documentary films on water harvesting and conservation (national</li> </ul>
	geographic. com)
<ul> <li>Listing ways of saving water in daily life*</li> </ul>	• Refer to chapter 16 'Paani Re Paani' of Hindi text book RIMJHIM-V
	<ul> <li>(Page 55)#</li> <li>Discussing the reasons why wells are drying (Page 56)#</li> <li>Making a list of sources of water for our daily need (Page 57)#</li> <li>Reading a water bill and discussing and recording its information in class (Page 58 - 59)#</li> <li>Organizing poster making competition on saving water</li> <li>Narrating the story of 'Darki Mai' to show importance of rain water harvesting (Page 59)#</li> <li>Making a list of rain water harvesting methods*</li> </ul>

Wk.8 (July)	Experiment With Water  ➤ Different forms of water  ➤ Soluble and insoluble	<ul> <li>Narrating the poem (Page 61)#</li> <li>Experimenting and observing the floating</li> </ul>	Work sheets*
	objects in water ,floating and non floating objects	• Experimenting and observing the floating property of any five objects on water (Page-62)#	• WOLK SHEETS
	<ul> <li>Basic concepts about liquids and litre as unit of measurement of volume</li> </ul>	• Introducing the concept of heavy water with the help of an activity (Page 63)#	• Pictures of Dead Sea*
		• Grouping the things as soluble and insoluble (Page 63 - 64)#	
		• Demonstrating the process of EVAPORATION in Science Labortory (Page 65)#	
		Discussing the Dandi March to explain the importance of salt and its origin, sea (Page66)#	Visual clips of Dandi March (http://www.youtube.com/ watch?v=WCvuo_NZcjo) (http://www.youtube.com/ watch?v=nxH8aVNIb0Q&f eature=related)
		Enlisting any five objects we obtain from sea	Pictures of objects we obtain from sea*
Wk.9 (July)	A Treat for Mosquitoes  Malaria-its causes, diagnosis, treat	• Discussing the causative agents and signs and symptoms of malaria (Page 67 - 68)#	Visual clips on spread of malaria and its prevention.*
	ment,analysis,cure  Causes of mosquitoes breeding	Observing and drawing conclusions from the clinical pathology reports (Page 69-70)#	Worksheets *
	Clinical and pathological report	• Listing DO's and DONTS' to check mosquito breeding (Page 71)#	Pictures of cinchona tree *

	Y	• Showing the pictures of iron rich food and discussing the importance of iron in our daily food (Page -71)#	•	Pictures of iron rich food *
		• Discussing the process of breeding of mosquitoes.(Pages 72-73)#	•	Pictures showing the process of breeding of mosquitos*
		• Surveying around the school and noting down any mosquito breeding place. (Pages 73)#	•	Area around school boundary wall
		• Narrating the story of Ronald Ross (Pages 74 -75)#	•	Pictures of Ronald Ross and female anopheles*
wk10	Up You Go	Locate Uttarkashi in map of India	•	Political map of India*
(Aug)	<ul> <li>highest peak and mountains of India</li> <li>Leadership Qualities and duties of class monitor</li> <li>Climbing mountains and tools needed to climb mountains</li> </ul>	• Narrating the story of mountain climbing (Pages 76-85)#	•	Pictures of rock climbing and tents* Visual clip on mountaineering (http://www.youtube.com/watch?v=IMDfRQ91NXg)
		• Discussing the responsibilities of a leader (Page 78)#		
		Name a few trees and animals found on mountains		Pictures of trees and animals found in mountainous regions*
		• Prepare a list of special equipments needed to climb mountains, if possible collect or draw these equipment (Page 80)#	•	Pictures of mountaineering equipment* Worksheets *

		<ul> <li>Showing the videos of Snow Storms (Page 85)#</li> <li>Listing great Indian personalities involved in mountain climbing and mountaineering institutes in India *</li> </ul>	<ul> <li>Video on snow storm         (http://www.youtube.com/         watch?v=XmqySBLKQ1M         &amp;feature=related )</li> <li>Pictures of great Indian         personalities involved in         mountain climbing*</li> </ul>
Wk.11 (Aug)	<ul> <li>Walls Tell Stories</li> <li>Understanding the importance of historical monuments in our life</li> <li>Rich cultural heritage of India</li> <li>Architect used in ancient buildings</li> <li>Idea about war and destruction and importance of peace</li> <li>Bond between past and present heritage</li> </ul>	<ul> <li>Visit to a museum at Art Gallery, sec 10, chd(If possible)</li> <li>Narrating the history of Golconda Fort (Pages 87-89)#</li> <li>Discussing the fine architecture of past(Page89)#</li> <li>Recognizing the four directions (Page 90)#</li> <li>Showing pictures of the weapons used in ancient times and discussing metals used for making them.(Pages 92-93)#</li> </ul>	<ul> <li>Video on Golconda Fort         (http://www.youtube.com/         watch?v=ipcdDLstI_w&amp;fea         ture=related)</li> <li>Worksheet *</li> <li>Pictures of objects made         out of metals(weapons,         artifacts, frames)*</li> <li>Map of India showing the         four directions*</li> </ul>
		<ul> <li>Discussing the arrangements of water in past (Page 94-95)#</li> <li>Writing the importance of various sources of</li> </ul>	Worksheet *

		history such as maps, pictures, excavated things, records, books and ledgers(Page 97)#  Making of own museum and studying the old paintings (Page 98)#  Make a list of things made up of steel, bronze, copper and aluminum	
		Make a project on any fort of India and explain its importance and relevance in Indian history.	• Pictures of different forts in India*
Wk.12 (AUG)	Sunita In Space  Arousing the interest of students on space travels  Introduce concepts like "space",Earth Gravity " International Boundaries	Showing visual clips and pictures of Kalpana Chawla in space	Pictures, visual clips of Kalpana Chawla (http://www.youtube.com/ watch?v=KK5xe5-WFgQ)
	<ul><li>Phases of moon and aerial view of earth</li></ul>	• Discussing the shape of earth (Page 100)#	• Globe
		<ul><li>Narrating Sunita's experience in space.</li><li>(Page 101)#</li></ul>	Video on talk of Sunita     Williams from space     (http://www.youtube.com/     watch?v=yvfJgQKCS2M)
		• Studying the steps of Sunita's journey through pictures (Page 102)#	
		• Introducing the concept of gravity (earth's pull) with an activity and weightlessness with pictures and visual clips. (Pages 103,104,109)#	Pictures* and visual clips of weightlessness in space (http://www.youtube.com/ watch?v=rQbc1HJc5Nw)

		• Introducing the concept of lines on the globe (latitudes and longitudes)(Pages 105,106)#	• Globe
		<ul> <li>Understanding the different phases of moon (Pages 107)#</li> <li>Drawing and labeling the different phases of moon(Pages 108)#</li> <li>Narrating the story of Sunita (how she became an astronaut) and encouraging students to give their house of the false that the fals</li></ul>	different phases of moon*
		best to fulfill their dreams. (Pages 109)#	• Refer to chapter 22 – 'KALPANA CHAWLA' of Punjabi Pustak of Class V.
Wk.13 (Aug) Wk.14 (Sept)	What If It Finishes  ➤ Renewable and non Renewable natural resources  ➤ Sensitizing on burning issue of Rising Petrol Prices and stressing the need to save petrol  ➤ Need to develop alternatives that are environmental friendly	<ul> <li>Enlisting vehicles which create pollution and which don't (Page 111)#</li> <li>Studying the importance of oil and writing different steps for its conservation (Pages 112 - 114)#</li> <li>Organizing poster making and slogan writing competition on the conservation of oil.</li> <li>Enlisting the different products obtained from petroleum (Page 114)#</li> </ul>	

		Comparing the increase in rates of petroleum and diesel (Page 115)#	
		• Studying different uses of petroleum and diesel from pictures (Page 116)#	
		Discussing the use of dry wood and cow dung as cooking fuel in rural areas (Page 117)#	• Pictures of use of dry wood and cow dung as cooking fuel in rural areas*
		• Comparing and contrasting the cooking fuels used in the past and present(Page 118-119)#	
		Suggesting ways to save oil*	Methods of saving oil *
		Introducing the concept of renewable and non- renewable sources of energy	<ul> <li>Pictures of Renewable and non renewable resources*</li> <li>Worksheet*</li> </ul>
		Discussing possible options for reducing the number of vehicles on the road.	
		• Locating Indian states having oil fields on the map of India. *	Political map of India with states having oil fields*
	Last Three weeks of September of	and first week of October are for Reflective Assessment	and other Activities
Wk 15 (Oct)	A Shelter So High  ➤ Different kinds of shelter  ➤ Inculcating sense of	Narrating the journey of Gaurav from Mumbai to Srinagar(Pages 123-130)#	

Locating the states one would pass through while

Discussion on problems faced by travelers on

high altitude and showing pictures of different

traveling from Mumbai to Kashmir \*

adventure

> Respecting the diversity

that exists on our country

Political map of India\*

Pictures of different things

they need while traveling

	Y	things they need while traveling.(Page 124)#	on high altitude *
		• Enlisting the cities having 0° C and below in winters(Page 127)#	Pictures of cities *
		• Discussing from pictures different types of houses in Jammu and Kashmir(128)#	
		• On the physical map of India the students may colour the (1) Mountainous region (2)Plains (3) Plateaus (4) Islands	Physical map of India showing different topographic regions *
		Recording week's weather report from newspaper	Newspaper from Library.
		• Showing pictures of plants and animals found at high altitude*	Pictures of plants and animals on high altitude *
W 17			
Wk.16 (Oct)	When The Earth Shook ➤ Introduction of natural	• Narrating the story of earthquake in Bhuj (Page 131-134)#	Worksheets *
	disasters  Talking about Earthquake-its effects on society  Coping up with Earthquake	• Introducing the term 'Richter scale' and 'Siesmograph'	• Worksheet*
	<ul> <li>Stressing the need and importance of neighbourhood</li> </ul>	• Listing the different types of helps during the disaster (Page 136)#	Pictures and Videos of different types of disasters*
***************************************		• Showing pictures and videos of natural disasters and discussing their effects (Page 136)#	
		Make a First Aid Box in class	• First Aid box*

		<ul> <li>Mock Drill to prepare for Earthquake to minimize the loss of lives and property.(Page 134-135)#</li> <li>Writing a report on floods(Page 137)</li> <li>Find out the names and addresses of organizations that extend help during natural disaster like nearby hospital. Ambulances, police station etc and their telephone help lines (Page 137)#</li> </ul>	Telephone Directory
Wk.17 (Oct)	Blow Hot ,Blow Hot  Explaining the concept of breathing  Traveling of heat from hotter to colder object  Vibration produced during sounds  Increase in breathing rate while doing strenuous activity	<ul> <li>Narrating the story of Woodcutter (Page 139-141)#</li> <li>Discussing the concept of cold air and hot air (Page 142)#</li> <li>Making a Paper Whistle (Page 143)#</li> <li>Demonstrating that the air blown out of our mouth contains water vapour. (Page 144)#</li> <li>Making a model of stethoscope using funnel and tube (Page 145)#</li> <li>Activity on Breathing in and out and observing the difference in body expansion (Page 144)#</li> <li>Counting Heart beat and breathing rate (Page 145)#</li> <li>Making and playing of snake game to discuss direction of airflow (Page 146)#</li> </ul>	

		<ul> <li>Collecting pictures of musical instruments which produce melodious or pleasing sound when we blow them *</li> <li>Making a breathing machine*</li> </ul>	Pictures of Trumpet, Flute, Shehnai, Saxophone, Bigul*
Wk.18 (Nov)	<ul> <li>Who Will Do This Work</li> <li>Enlisting various kinds of work</li> <li>Respecting dignity of labour and laborers</li> </ul>	<ul> <li>Discussion on different kinds of jobs specially the Cleaning Job (Page 149)#</li> <li>Collecting information and writing about the jobs people don't like / like to do (Page 149)#</li> <li>Narrating the story of Mahatma Gandhi (Page 151)#</li> <li>Discussing the importance of changing the outlook/ views towards different jobs*</li> <li>List 5 different types of work that people do for you, based on discussion or on general observation</li> <li>Discussion on Gandhi's role of creating equality in society and restoring dignity for lesser privileged ones</li> <li>Comparing and contrasting division of society on basis of jobs in the ancient and modern times*</li> </ul>	• Worksheets *

Wk.19 (nov)	Across The Wall  > Highlighting the concept of concept of Equality  > Developing of sportsmanship  > Recognizing the role of famous women	<ul> <li>Narrating the story of Afsana (Page 154-158)#</li> <li>Discussing gender discrimination and difficulties faced by girls in sports (Pages 158 - 164)#</li> <li>Sensitizing the students on healthy competitions and spirit of sportsmanship (Page 160)#</li> <li>Discussing the importance of coach</li> </ul>	
		<ul> <li>(Page 163)#</li> <li>Making a list of indoor and outdoor games</li> <li>Demonstration of games like Basketball, volleyball</li> <li>Collecting information on eminent Indian sportswoman</li> </ul>	<ul> <li>Pictures of local and traditional games (Martial arts, Boat race etc )</li> <li>Worksheets*</li> <li>School playground</li> <li>Pictures of eminent Indian sportswoman*</li> </ul>
Wk.20 (Nov)	No Place For Us  Differentiating lifestyle of villages and cities The reason for migration of people Difficulties faced by people involved in migration, displacement, demolitions etc	<ul> <li>Narrating the story of Jatryabhai to highlight the problems of displacement (Pages 165-172)#</li> <li>Enlisting the problems of migrants (Page 173)#*</li> </ul>	<ul> <li>Pictures on plight of migrants and displaced people (Sardar Sarovar dam)*</li> <li>Documentary on people living in slums (http://www.youtube.com/watch?v=Xdo0bjRWXMY)</li> </ul>

		<ul> <li>Draw a picture showing village life and city life and enlist main differences*</li> <li>Discussion on different aspects of dams</li> </ul>	<ul><li>Worksheets*</li><li>Pictures of Bhakra Dam*</li></ul>
Wk21 (Nov)	A Seed Tells a Farmer's story  Identifying different types of crops  Relation of crop harvesting and festivals  Respecting hardships of farmer and farming  Differences between 'manures' and 'fertilizers'	<ul> <li>Discussing the different grains used in preparing rotis (Page 175)#</li> <li>Enlisting the methods to protect grains and pulses (Page 175)#</li> <li>Identification of different grains – Corn, Mustard, Wheat, Bajra, Rice, Chana (Pages 176-177)#</li> <li>Arranging the pictures in order to show the journey of seed from field to the plate (Pages 180-181)#</li> <li>Tracing the problems of farmers (Page178)#</li> <li>Discussing the progress in Agriculture (Pages 176-177)#*</li> <li>Listing different things made from same grain (Wheat or Rice)*</li> <li>Naming the different festivals in India related to harvesting (Page 175)#</li> </ul>	

			Refer to poem 'HUM KYA UGAATE HAIN'in Hindi book RIMJHIM- V
	The entire month of December and	l first two weeks of January are for Reflective Assessme	ent and other Activities
Wk 22 & 23 (Jan)	<ul> <li>Whose Forests</li> <li>➤ Need and importance of forests for Adivasis</li> <li>➤ Life and culture of adivasis</li> <li>➤ Jhoom farming in Mizoram</li> <li>➤ Movements to save trees – chipko movement, Vanmahotsav, J harkhand jungle bachao Andolan</li> </ul>	<ul> <li>Narrating the story of Suryamani to explain the importance of forests and adivasis (Pages 182-189)#</li> <li>Discussing the RIGHT TO FOREST ACT,2007 (Page 186)#</li> <li>Discussing Jhoom farming in detail (Page 189)#</li> <li>Showing the rich culture of Adivasis using pictures*</li> </ul>	<ul> <li>Worksheet *</li> <li>Documentary on culture of adivasis         (http://www.youtube.com/watch?v=riXwJJHR4Yo*</li> </ul>
		<ul> <li>Locate seven sister states (north eastern states) on map of India</li> <li>Poster making competition on 'Save Trees'</li> <li>Identify green belt closer to your area</li> <li>Reading the map of forests in India and identifying dense and less dense forests (Page 188)#</li> <li>Viewing of visual clip on afforestation</li> </ul>	<ul> <li>Political map of India*</li> <li>Documentary movie on afforestation and</li> </ul>

				deforestation. (http://www.youtube.com/ watch?v=UkByV2I-dlE)
Wk 24 (Feb)	Like Father Like Daughter  Identifying same traits in families  Understanding cause of similar habits of members and role of environment in shaping one's personality	<ul> <li>different families (Pages 192-195)#</li> <li>Identifying the similar habits and traits in the family.</li> </ul>		Worksheets*
	personanty	• Enlisting the diseases inherited from one generation to another	i	Pictures of diseases inherited from one generation to another
		• Narration of story to sensitize the students on importance of surroundings in shaping the personality of a person	• \$	Story on environment*
		• Observation of any twins and writing the similarities in the likes and dislikes, behavior of the two. (Page196)#		
		• Different causes of loss of hearing and its treatment (Page 199)		
Wk.25 (Feb)	On The Move Again  Dependence of Agriculture and	• Narrating the story of Dhanu to explain life of landless farmers (Page 200-203)#		
	different types of farmers ➤ Shifts in habitation, migration, tr	Discussing and collecting pictures of different methods of irrigation	1	Pictures of traditional and modern methods of cultivation*
	ansfers  Demolition and displacement	• Showing visuals on latest irrigation methods (Sprinkle irrigation and Drip irrigation)		visual clips on Sprinkle irrigation and Drip

associated difficulties  Effects on education of children of these families  Exploitation of needy by greedy	<ul> <li>Role Playing of a moneylender and a landless farmer highlighting the plight of farmers (Pages 200-201)#</li> <li>Enlisting the differences between farmers-Landless farmers and Landlords</li> </ul>	irrigation (http://www.youtube.com/ watch?v=RO4SlWr7CJo) (http://www.youtube.com/ watch?v=S3-5Ca7VJmM)  Newspaper clipping of plight of farmers in debt
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Last two weeks of February are for REFLECTIVE ASSESSMENT and other ACTIVITIES

### OBJECTIVES OF TEACHING ENVIRONMENTAL STUDIES

### Introduction

The National Curriculum Committee had recommended in the 1975 policy document "The Curriculum for the Ten-year School: A Framework", that a single subject 'Environmental Studies' be taught at the primary stage. It had proposed that in the first two years (Class I-II) Environmental Studies will look at both the natural and the social environment, while in Classes III-V there would be separate portions for social studies and general science termed as EVS Part I and Part II. The National Policy on Education 1986 and the National Curriculum Framework (NCF) 1988 also posited the same approach for the teaching of Environmental Studies at the primary stage. Contemporary research on how children learn to make sense of the world around them and how pedagogy in primary school can enable them to develop scientific abilities and understanding in consonance with social and environmental concerns has further supported this integrated structure. The NCF 2000 had recommended that Environmental Studies be taught as an integrated course for the entire primary stage, instead of in two distinct parts devoted to science and social studies in Classes III-V. The present NCF 2005 has called for the continuation and further strengthening of this integrated approach for Environmental Studies during the primary years.

### NCF 2005 and Objectives of Environmental Studies

The present syllabus is designed to forge an integrated perspective for the primary stage of schooling that draws upon insights from Sciences, Social Sciences and Environmental Education. The National Curriculum Framework 2005 indicates some of the objectives of teaching science and Social Sciences at the primary stage as follows:

- o to train children to locate and comprehend relationships between the natural, social and cultural environment;
- o to develop an understanding based on observation and illustration, drawn from lived experiences and physical, biological, social and cultural aspects of life, rather than abstractions;
- o to create cognitive capacity and resourcefulness to make the child curious about social phenomena, starting with the family and moving on to wider spaces
- o to nurture the curiosity and creativity of the child particularly in relation to the natural environment (including artifacts and people);
- o to develop an awareness about environmental issues;
- o to engage the child in exploratory and hands-on activities to acquire basic cognitive and psychomotor skills through observation, classification, inference, etc.

Integrated Approach of Teaching EVS proposes themes that allow for a connected and interrelated understanding to develop the child's personality. This requires moving beyond traditional boundaries of disciplines and looking at priorities in a shared way. Each theme is woven in a web and continuation with the previous ones. It is a **suggested format** which indicates the key themes and sub themes along with their possible connections. This approach triggers the thinking skills of child and thus opens up new horizons in child's growth. These themes also indicate how adults can stimulate and actively support child's learning rather than restricting it.

### Themes for a Child Centered and Integrated Approach

This syllabus web has been developed within a child centered perspective of themes that provide common interface of issues in social studies, sciences and environmental education. The syllabus for Classes III-V is woven around six common themes given below;

### 1. Family and Friends:

The predominant theme on 'Family and Friends' encompasses four sub-themes:

- o Relationships.
- o Work and Play
- Animals
- o Plants

'Plants' and 'Animals' have consciously been included under the theme of 'Family and Friends' to highlight how humans share a close relationship with them and to also provide a holistic and integrated scientific and social perspective of studying them. Traditionally 'plants' or animals' are presented as autonomous categories, seen purely from the perspective of science. Here an attempt is made to locate them in a social and cultural context, and also to see how the lives and livelihoods of some communities, such as the gujjars, musahars or 'pattal'-makers, are closely connected with specific animals or plants. Moreover, in the universe of young children narratives of animals and plants play a significant role, and they can relate well even to the animated characters perceived as 'family and friends'. Our Bodies, Ourselves: 'Family and Friends' offer Sensitivity and Sensibility

This theme especially through its two subthemes – 'Relationships' and 'WORK AND PLAY 'allow the children to look at their body as part of their inner "SELF'. In Class III in the sub-theme on Relationships, they discuss their relatives, who live with them and those who have moved away, to get a basic idea of relationships and changing households. They reflect on whom they admire among their relatives and for what qualities or skills, and describe on which occasions or festivals they meet most of them. The unit 'our bodies – old and young' helps them place their own body in relation to those of their family members, and asks them to notice differences that may occur with age In Class IV, the same sub-theme 'Relationships' has a unit on 'your mother as a child' to make children find out about who were her relatives with whom she lived then. They also think about their body in relation to their mother's; how a baby rat or kitten is related to its mother, and through a possible narrative, about children who may have been

adopted/looked after by foster parents, say, after a cyclone. By 'Feeling around with eyes shut' they explore their senses of touch, smell, etc. - not in isolation of the people or animals they care for - but by trying to identify all those living with them only by touching, hearing or smelling them. In Class V, the unit 'Whom do I look like?' helps them identify family resemblances, to look for any similarities in the face, voice, height, etc., and also to note particular traits such as 'who laughs the loudest?'. It goes on to how by 'feeling to read' on a Braille sheet, someone like Helen Keller could manage to overcome tremendous challenges, as described through accounts of her autobiography.

### 2. Food

Theme Food begins in Class III with cooking, eating in family and about what we eat and what others eat , what animals eat etc. Class IV proceeds ahead to how food is grown, what different plants are known to students and how food reaches us. Class V advances to who grows the food , the hardships farmers may face while staying grounded to reality of own pangs of hunger or plight of people who do not get food. In addition, when food gets spoiled-explores spoilage and need for preservation of food. The changes in food habits and crops grown are analyzed through experiences of elders/ grandparents. Finally our mouth- how it tastes the food and even what helps in digesting food, sees the role of saliva in making food sweet on chewing. While food for plants also introduces the idea of some curious insect eating plants.

### 3. Shelter

The **theme** Shelter begins in class III with explanations of need of a house and reasoning for the same houses in the same region. Class IV deals with the differences in urban and rural houses, slums and multistoreyed houses. Class V deals with variety of houses in different topographical regions.

#### 4. Water

Dealing with the important issue of water, class 3 deals with availability and storing of water. Class IV continues with water scarcity and its reasons. Conservation of water is dealt with in class V.

### 5. Travel

The Objective was developed to help child on journey of ideas of expanding social and physical spaces into newer and unfamiliar terrains of often mind boggling and no less fascinating diversity.

The topics covered in class III encourage children to look at their own journeys and compare it with journeys of older people in family while in CLASS IV, the theme suggests travelling through deserts, hills, forests or big cities. Moreover it suggests resources to be brought into class rooms like the experiences of the children of migrating families and discussion of problems faced in starting new life in new city. In CLASS V, this theme takes children through rough and tough terrains of Himalayas, story of Bachchendri Pal and her hoisting flag after a trying expedition.

### 6. Things we make and do

The area of Things we Make and Do is visualised as an important component as well as a common thread inherent in the process of understanding all the other themes. We humans make things not only to meet our needs but also to express ourselves in a variety of ways and to transcend our limitations. We also comprehend better when we do things ourselves. Often when a young child gets a toy for a gift, she has fun dismantling and later re-assembling it in a completely novel way as much as enjoying it as it is. When she is given a new book she is eager to add 'her pictures' into it as much as appreciating the book. Formal education as well as all that goes into 'being a good child' however discourages these acts. The theme of Things we Make and Do therefore is an opportunity to recharge the variety of energies/components that make learning more fulfilling, and where cognition is not an end but a process enriched by experience, failure, observation, success, etc. There is also a need to give our rich living traditions of art and craft, of 'making and doing things', their rightful place in our curricula. To teach environmental education activities, teachers are encouraged to use the acronym CARE. CARE stands for "Complexity, Aesthetics, Responsibility and Ethics".

*Complexity* - There are natural and human systems that are all connected. As teachers and students, how do we interact with and affect those systems?

Aesthetics - Help your students develop an appreciation for the natural world that will encourage them to learn about and protect the environment

*Responsibility* - Provide opportunities for your students to take responsible actions and explore the environmental impact of what they do.

*Ethics* - As your students' understanding of environmental issues develop from participating in environmental education activities, they form an environmental ethic of their own.

Students are working towards:

- o sharing ways to rethink, refuse, reduce, reuse, and recycle
- o describing features of local plants and animals
- o comparing local plants & animals
- o describing attributes of their immediate environment (playground)
- o showing an awareness of the concept of change
- o identifying groups and places that are part of their lives

- o identifying characteristics of different local environments
- o showing responsible behavior in caring for their immediate environment

This child centered approach is not something which enhances rote memory but is something which gives practical approach to child. It helps in shaping the personality of child. Child realizes his inner self in coordination with his surroundings. It also helps him to increase his sensitivity towards helpless people .To sum up, these themes make the child in harmony with his inner self and realize his worth and is able to respect his surroundings and people in his life. The ultimate aim is to make him a responsible member of the family and finally a responsible citizen of the country.

### Sincere Thanks to

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