

(v) Environmental Studies

Syllabus for Classes 1-2 Environmental Studies

Topic	Environmental Studies	
	Class 1	Class 2
1.Plants	1. Plant Kingdom 1.1 The tree as a habitat to many birds, animals insects 1.2 Plants and flowers around the child	World of plants Parts of a plant Different kinds of Trees, Shrubs, Herbs, Grasses, Climbers and creepers around the child.
2.Animals & Birds	2. Animals 2.1 Animals, Birds insects around the child 2.2 Protection of animals	2.1 Birds Around the child ---Spotting & describing birds, animals 2.2 Nests of birds, 2.3 Care of the young ones 2.4 Food
3.Small Creatures Around the children		
4. Day and Night	4. Day and Night 4.1 Rhythms of the day and night life around the child 4.2 Day and Night – Sky 4.3 Animals and people who have different rhythms of life	4.1 Night sky observation Sky at a day 4.2 Directions
5.Water	5. Water and Air 5.1 On a rainy day 5.2 Air 5.3 Uses of Water	5.1 Life in and around water. Sources of water (river, tank, lake) fresh water, sea water
6.Air		6.1 Air and Breath

Topic	Environmental Studies	
	Class 1	Class 2
7. Food	7. Food 7.1 Types of Food 7.2 Journey of Milk 7.3 Vegetable Fair	7.1 Names of the cereals, pulses, greens, millets, vegetables, fruits 7.2 Dairy products and their preparation 7.3 Meat of animals, egg 7.4 Spices 7.5 Food eaten by people of different ages
8. My Body	8. Our Body 8.1 Five Sense Organs 8.2. Exploration of Sounds 8.3 Sounds of Birds and Animals	8.1 Simple body movements running, skipping, playing. 8.2. Gender- Male, Female 8.3 Parts of the body 8.4 Right & left
9. Keeping Healthy and Clean	9. Health and Hygiene 9.1 Daily good habits for hygiene 9.2 Protection of the sense organs	9.1 Keeping the surroundings clean classroom, public places 9.2 Importance of toilets, types and its uses
10. Man, Matter and Materials		10.1 Things to touch and feel 10.2 Sand and Mud. 10.3 A day in the beach 10.4 Natural resources- wood, stone, sand, clay, metals, water 10.5 Indian toys using natural materials (link to people who make them)
11. Work		11.1 Push and pull to work
12. Science in Everyday	12. Daily Life 12.1. Helping Family	

Topic	Environmental Studies	
	Class 1	Class 2
Life	Members 12.2. My Family 12.3. Clothing 12.4. Friends who help use 12.5. Public Places	
13. Travelogue	13. Travel Experience 13.1. Bus Travel 13.2. Various types of Transport System	13.1 Along a river (Animals, plants, people, activities and preservation)

Science

Topic	Science		
	Class 3	Class 4	Class 5
1.Plants	World of plants 1.1 Parts of a plant 1.2 Leaves 1.3 Flowers 1.4 Type of Root 1.5 Stem 1.6 Different kinds of fruits and seeds 1.7 Water Plants	1.1 Edible parts 1.2 Life cycle (seed to seed) 1.3 Germination 1.4 Plants in our society (sacred trees, grasses, flowers and festivals, Vanamahotsav)	Web of Life Pollination, Dispersal of seeds Plants as primary producers
2.Animals & Birds	2.1 Animals in different environments -land, air, on trees 2.1 Morphology External features 2.2 Food & mouth parts in relation to the food eaten 2.3 Herbivore, carnivore, and omnivore	2.1 Special Senses of Animals 2.1 Care of their young 2.3 Animal Communities	2.1 Diminishing spaces for animals 2.2 Sanctuaries 2.3 Prevention of cruelty to animals

Topic	Science		
	Class 3	Class 4	Class 5
	2.4 Movement 2.5 Camouflage		
3.Small Creatures Around the children	3.1 Names of the Small Creatures around the children 3.2 Habitat water, soil, garden, in the home 3.3 Morphology 3.4 Food 3.5 Movement	3.1 Nocturnal Insects 3.2 Life of Ants	3.1 Life cycle of a butterfly 3.2 Bee
4. Day and Night	4.1 Earth and Moon 4.2 Phases of Moon 4.3 About the moon 4.4 Full moon, New Moon 4.5 Day and night formation	4.1 Solar Family 4.2 Sky at a night	4.1 Space 4.2 Space Travel
5.Water	5.1 Use of water 5.2 Potable water 5.3 Prevention of water borne diseases 5.4 Pollution and its Prevention 5.5 Water pollution and mosquito breeding	5.1 Too much and too little rain Droughts, floods 5.2 Conserving Water 5.3 Tapping water -- traditional water harvesting structures 5.4 Water scarcity difficulties people experience in procuring water	5.1 Understanding some properties of water 5.2 Water for all
6.Air	6.1 Kinds of winds	6.1 Air is a mixture of gases 6.2 Constituents of air	6.1 Understanding some properties of air 6.2 Uses of air
7.Food	7.1 Ingredients of food eaten 7.2 Sources of food 7.3 Having a nutritious meal --(Balanced diet) food	7.1 Raw and cooked food 7.2 Food in illness 7.3 Utensils used in cooking 7.4 Cooking Practices 7.5 Food hygiene	7.1 Preservation and spoilage of food 7.2 Kitchen safety

Topic	Science		
	Class 3	Class 4	Class 5
	groups, nutrients 7.4 Food eaten in different places		
8. My Body	8.1 Skin, muscles, bones, joints, teeth, hair	8.1 Over view of the internal organs of the human body 8.2 Digestion of food	8.1 Brain, 8.2 Sense organs
9. Keeping Healthy and Clean	9.1 Food for good health 9.2 Health and Exercise 9.3 Eye Exercises for better vision	9.1 Personal safety (At home, on the road, in school and common Places.)	9.1 Spread and prevention of a disease. 9.2 Avoiding public places . Using a toilet 9.3 Knowing the nearest Health centers
10. Man, Matter and Materials	.1 Three states of matter (examples)	10.1 Transformation of natural resources into materials for use (one example from industry & one from agriculture) 10.2 Generation of waste 10.3 Kinds of wastes and sources 10.4 Recycling	10.1 Properties of materials 10.2 Different kinds of houses --variation with climate
11.Work	11.1 Tools to work (Different kinds of tools and their design for use) Tools used by the various professionals	11.1 Energy and work (Relationship between energy, force and movement)	11.1 Renewable sources of energy 11.2 Non renewable sources of energy Uses and applications of energy

Topic	Science		
	Class 3	Class 4	Class 5
			11.3 Conserving energy
12. Science in Everyday Life	12.1 Science around as (Toys)	12.1 Need based science Innovations (Ex. Printing Machines. Telephones, Computer) 12.2 Science Question	12.1 Biography of a scientist
13. Travelogue	13.1 To a Forest (Animals, plants, produce from forests) 13.2 Deforestation and its consequences, conservation	13.1 To a farm (animals, plants, people, growing a crop) 13.2 Don't harm animals. 13.3 Environment cleanliness	13.1 To a Botanical Sanctuary (Edible plants Medicinal plants Aromatic plants, timber yielding plants, Seeds) 13.2 Kinds of Flowers (Fragrances, Dyes Flower Motifs)

Science		
Class 3	Class 4	Class 5
World of plants 1.8 Parts of a plant 1.9 Leaves 1.10 Flowers 1.11 Type of Root 1.12 Stem 1.13 Different kinds of fruits and seeds 1.14 Water Plants	1.5 Edible parts 1.6 Life cycle (seed to seed) 1.7 Germination 1.8 Plants in our society (sacred trees, grasses, flowers and festivals, Vanamahotsav)	Web of Life Pollination, Dispersal of seeds Plants as primary producers
2.1 Animals in different environments -land, air, on trees 2.1 Morphology	2.1 Special Senses of Animals 2.1 Care of their young 2.3 Animal Communities	2.1 Diminishing spaces for animals 2.2 Sanctuaries 2.3 Prevention of cruelty to

Science		
Class 3	Class 4	Class 5
External features 2.2 Food & mouth parts in relation to the food eaten 2.3 Herbivore, carnivore, and omnivore 2.4 Movement 2.5 Camouflage		animals
3.6 Names of the Small Creatures around the children 3.7 Habitat water, soil, garden, in the home 3.8 Morphology 3.9 Food 3.10 Movement	3.1 Nocturnal Insects 3.2 Life of Ants	3.1 Life cycle of a butterfly 3.2 Bee
4.1 Earth and Moon 4.2 Phases of Moon 4.3 About the moon 4.4 Full moon, New Moon 4.5 Day and night formation	4.1 Solar Family 4.2 Sky at a night	4.1 Space 4.2 Space Travel
5.1 Use of water 5.2 Potable water 5.3 Prevention of water borne diseases 5.4 Pollution and its Prevention 5.5 Water pollution and mosquito breeding	5.1 Too much and too little rain Droughts, floods 5.2 Conserving Water 5.3 Tapping water -- traditional water harvesting structures 5.4 Water scarcity difficulties people experience in procuring water	5.1 Understanding some properties of water 5.2 Water for all
6.1 Kinds of winds	6.1 Air is a mixture of gases	6.1 Understanding some

Science		
Class 3	Class 4	Class 5
	6.2 Constituents of air	properties of air 6.2 Uses of air
7.1 Ingredients of food eaten 7.2 Sources of food 7.3 Having a nutritious meal –(Balanced diet) food groups, nutrients 7.4 Food eaten in different places	7.1 Raw and cooked food 7.2 Food in illness 7.3 Utensils used in cooking 7.4 Cooking Practices 7.5 Food hygiene	7.1 Preservation and spoilage of food 7.2 Kitchen safety
8.1 Skin, muscles, bones, joints, teeth, hair	8.1 Over view of the internal organs of the human body 8.2 Digestion of food	8.1 Brain, 8.2 Sense organs
9.4 Food for good health 9.5 Health and Exercise 9.6 Eye Exercises for better vision	9.1 Personal safety (At home, on the road, in school and common Places.)	9.1 Spread and prevention of a disease. 9.2 Avoiding public places . Using a toilet 9.3 Knowing the nearest Health centers
10.1 Three states of matter (examples)	10.1 Transformation of natural resources into materials for use (one example from industry & one from agriculture) 10.2 Generation of waste 10.3 Kinds of wastes and sources 10.4 Recycling	10.1 Properties of materials 10.2 Different kinds of houses --variation with climate
11.1 Tools to work (Different kinds of tools and their	11.1 Energy and work (Relationship between energy, force and	11.1 Renewable sources of energy 11.2 Non

Science		
Class 3	Class 4	Class 5
design for use) Tools used by the various professionals	movement)	renewable sources of energy Uses and applications of energy 11.3 Conserving energy
12.1 Science around as (Toys)	12.1 Need based science Innovations (Ex. Printing Machines. Telephones, Computer) 12.2 Science Question	12.1 Biography of a scientist
13.1 To a Forest (Animals, plants, produce from forests) 13.2 Deforestation and its consequences, conservation	13.1 To a farm (animals, plants, people, growing a crop) 13.2 Don't harm animals. 13.3 Environment cleanliness	13.1 To a Botanical Sanctuary (Edible plants Medicinal plants Aromatic plants, timber yielding plants, Seeds) 13.2 Kinds of Flowers (Fragrances, Dyes Flower Motifs)

Social Science (Classes III to V)

Class - III

Sl. No.	Competency	Content	Learning Outcomes
1.	Knowledge of Social behaviour – In my Home, In my School; In My Village/Area	My family, my neighbours, my school <i>People at Home: What is a family? Relationship in a</i>	<ul style="list-style-type: none"> • To make the child understand his/her role and accommodate in a get together and in family. • To learn to work and

		<p><i>family; What is neighbourhood? Different neighbourhoods, rights and responsibilities in common places, What is school? Pupil at School: HM, Teachers, NMS, Other helpers & their Roles. Safe & Responsible use of Environment, Classroom, and Table manners, Waste disposal Using the toilet ,Punctuality, Courtesy</i></p>	<p>play collaboratively growing sensitive to the dwelling environment, and the people I associate with.</p>
2.	Knowing the route from Home to School	<p>Mapping my route to school.</p> <ul style="list-style-type: none"> - Shops/other landmarks and people I meet. - Light and shade - Left and right - Pavement / paths - Accompanying people 	<ul style="list-style-type: none"> • To be aware of how I come to school, and the sights I see on my route. The weather, trees, pavements, railway crossings, people who accompany me, people I can trust. • To gain self dependence, in case emergence to reach the school himself/herself • To trace and observe changes in routine basis. • To understand the basics of mapping.
Sl. No.	Competency	Content	Learning Outcomes
3.	Knowing the basic directions; relating the sun.	<ul style="list-style-type: none"> • To experientially and graphically understand the four main directions. • To have a clear orientation to Left and Right, relating the directions. • Improvise some simple sketching activity. 	<ul style="list-style-type: none"> • To distinguish the four basic directions. • To comprehend the geographical importance of directions. • Relating the linkage between the position of sun, direction and

			shadow.
4.	Knowing Traffic Rules – Road safety-Norms	<ul style="list-style-type: none"> To be safe on the roads. observing the traffic rules. To be safe while boarding and alighting from the vehicles. safe pedalling to school; Knowing the important signs. 	<ul style="list-style-type: none"> To inculcate a sense of safety and secured travel on the road.
5.	Learning about Public Services; Community helpers Understanding and respecting basic services & people who do them; Diversity in skills and occupations	<ul style="list-style-type: none"> Public & Community services Post office, Bank, Police Station, Ration Shop, PHC or nearest Public Hospital, Water Tank and other water services; , Electricity Board; people who function to keep my area/locality clean and safe 	<ul style="list-style-type: none"> To know the services available and who serve. To understand how different occupations contribute to a community, and appreciate the skills involved.
6.	Going on a trip. Learning through trips. Modes and uses of various kinds of transport	<ul style="list-style-type: none"> Kinds of Transport To know the important places to visit in one's area 	<ul style="list-style-type: none"> To know about modes of travel Mode of transport in different areas. To learn the value of trips and travel
7.	Knowledge & source of food, types of land and food grains that grow.	Where food is cultivated; links between what we eat, types of food grain and different land types; relating between history, culture and food basics of healthy food..	<ul style="list-style-type: none"> Various types of food available in different season, festivals and geographical region. Method of cultivation of different edibles Our food habits and its linkage to culture and history.
8.	My District My Taluk, my Block, my Village, Physical features and life of people.	<ul style="list-style-type: none"> Understanding pupil's local District – Looking at and Plotting hills, rivers, lakes, important 	<ul style="list-style-type: none"> To identify and grow familiar with one's own district and features.

		<p>touring places etc., in a District map.</p> <ul style="list-style-type: none"> • To understand the culture of the people. 	
9.	<p>Physical features & life of Tamilnadu The life background of the district.</p>	<ul style="list-style-type: none"> • Physical features of Tamil Nadu. It's background-Flora & Fauna linking the life with the geo-physical features of the state. 	<ul style="list-style-type: none"> • To make aware of the geo physical features of the state • To relate the features with the flourish of flora and fauna • To trace the influence of the life
10.	<p>Getting acquainted with birds in Tamilnadu</p>	<p>Learning about and appreciating different common birds across Tamilnadu; becoming sensitive to their life understanding the importance of birds.</p>	<ul style="list-style-type: none"> • To observe various birds in the locality; • To identify different species. • To know their life • To understand the very important role birds play. • To appreciate the geographical diversity of Tamilnadu. • To cater the needs of bird.

Class – IV
Integrated Competency, Content and Learning Outcomes for
Geography, Civics, and History

Sl. No.	Competency	Content	Learning Outcomes
1.	Celestial bodies	Description of Planets- sun satellite -stars asteroids, meteoroids, comets.	Understanding the different celestial bodies (planets and stars) and their characteristics.
2.	Changes around me : Nature Seasons, day and night, moon – eclipse, weather, seasons	Understanding Earth's rhythms – seasons, day, night, weather, moon – through simple explanations.	Understanding and respecting the earth's rhythmic phenomenon. Tracing the results of the different movements and related effects.
3	What does the earth give us? What can we do, to preserve it? Water: sources, basic uses, pollutions, Simple conservation. Soil: Agriculture: pollution - preserving fertility. Forest: The importance of trees Air: Keeping air free from pollution.	Dealing with basic Geography, and simple principles of conservation : air, water and soil – exploring concepts in each area, and evolving the earth as a resource.	To Create consciousness about earth and how it nurtures life, through the practices of day to day living. Imbibing sense of judicious use of the resources consciousness about the misuse and abuse. To know the importance of soil, air, and water.
4	Getting acquainted with animals - birds in Tamilnadu	Sanctuaries	To save birds and animals To know about sanctuaries
5.	How India became free : a story	Simple facts about the Indian freedom struggle, narrated as a child's story: the birth of India a nation	To understand the preciousness of freedom as a citizen of India. To realise the sacrifice Martyrdom of the freedom fighters
6.	My Country - physical and political features - National symbols.	Physical features of India. The basic facts about India, its states and Union Territories. National symbols.	Basic knowledge of India as a nation. Able to identify India, and spot physical features and political divisions in a map/atlas. To recognise National

			symbols.
7.	Individuals tell their story - Lifestyles, events, anecdotes	Stories told by a Toda girl, a farmer in Thanjavur , an imigrant coolie story, a roadside fast food shop owner's story	To enumerate the linkage between History and geography. To Understand the different lifestyles of peoples living in different places in relation to their
8.	Scientific Advancements and inventions in narrative and story telling few useful inventions and their impacts on human life. Few famous inventors	Learning about scientific and technical advancements through a famous inventor – JC Bose and one simple Experiment invention which changed the course of human history like Fire, wheel and plough.	To learn by tracing the life of scientists. To verify the experiments To develop scientific temperament
9.	My Rights and Duties: As a citizen; as a child-	Listing a few important constitutional rights and duties: also what a child is entitled to – basic rights	To identify and grow familiar with one's rights and duties, both as a citizen and as a child.
10.	Common festivals related to sun, moon and seasonal contexts, different socio, economic, occupational backings. Different festivals and their cultural connotations.	Worshiping the mother Earth, rainfall – pongal, Deepavali, Dasara, Raksha Bandhan, Holi, melas & carnivals of festivals. Bhuddha poornima, national, spiritual, domestic, cultural festivals	Children are able to understand the rationale behind the festivals, diversity of cultures and commonality of celebrations. Meaning behind the celebrations. To appreciate the development of good relationships by celebrating the festivals. To cultivate societal interpersonal values.

Sl. No.	Competency	Content	Learning Outcomes
11.	Safety: precautions I must observe	Physical Safety : Fire, electrical equipment, road, water, Simple First Aid and safety : Simple activities	Constructing the practical knowledge of safety and responsible behaviour.
12.	My state TamilNadu - physical and political features. - state Symbols	The basic physical and political facts about Tamilnadu Interesting facts about state symbols.	Tamil Nadu a state in India its uniqueness and significance. To recognise state symbols.
13.	Tamilnadu Folk arts	An explorative journey into music, dance, through people.	To understand and appreciate the rich heritage of culture in TamilNadu.
14.	Tamilnadu crafts	Textiles, handicrafts and arte facts –Kanchipuram, weavers, Mammallapuram sculptors	

Class V
Integrated Competency, Content and Learning Outcomes for
Geography, Civics, and History

Sl. No	Competency	Content	Learning Outcomes
1.	Ancient Kings and Kingdoms of TamilNadu – Sangam Age.	Sangam Age, Cheras, Cholas & Pandyas – Important Kings – Karikalan <ul style="list-style-type: none"> • Nedunchezhiyan II • Cheran Chenguttuvan, Kadiezhuvalgal • Life during Sangam Age. 	To know about Ancient Kings and Kingdoms of the Sangam Age in TamilNadu. To understand the glory of the Sangam age and its rich cultural heritage.
2.	Travel- Famous Travellers	Some famous travellers – (a brief account) Eg: Fa-Hein, Hieun Tsang, Vasco da Gama, etc.	To learn about some famous travellers down the ages.
3.	Our Planet The geography of our Planet, Land forms, water bodies, Globe and Maps	Details about the Earth. – Physical features and their formation. - Globe and maps	To understand the basic features of the Earth. To know how to use the globe and the atlas.
4.	Natural Resources of India – Soil	Types of Soil, Uses of Soil, Protection of Soil.	To learn about various types of soil, uses and conservation of soil.

Sl. No	Competency	Content	Learning Outcomes
5.	Vegetation in India	Types of forests, uses & conservation	To know the different types of forests found in India, the various kinds of trees found in them, their uses and conservation, afforestation.
6.	Minerals of India	Minerals that are found in India and the Regions of their occurrence, the uses of minerals and their Conservation.	To learn about the different minerals found in India, and the regions they are found in, uses of minerals and their conservation.
7.	Space Research - Kalpana Chawla - Sunitha Williams	Ancient and Modern Space Research, History of Space Research in India. Achievements of Kalpana Chawla & Sunitha Williams as Space Travellers	To learn briefly about Space Research & India's place in Space Research. To know about the achievements of Kalpana Chawla and Sunitha Williams.
8.	Structure of Government in India <ul style="list-style-type: none"> • Central • State • Union Territories • Judiciary- An introduction • India, its neighbouring countries 	Brief account of Government structure in India <ul style="list-style-type: none"> • Central Government (President, Prime Minister, Lok Sabha, Rajya Sabha) • State Government (Governor, Chief Minister, Legislature) • Union Territories, Judiciary- an introduction 	<ul style="list-style-type: none"> • To become aware of the formation of Government and the different functions of Parliament and Legislature – Judiciary
9.	Local bodies and Public Properties	Local Self – Government <ul style="list-style-type: none"> • Panchayat Raj • Village panchayat • Gram Sabha • Gram Panchayat • Protecting Public Property 	To learn the structure of local self Government setup of local bodies To learn about protection of Public Property.

10.	Knowing Traffic Rules – Road safety-Norms	To be safe on the roads. observing the traffic rules. To be safe while boarding and alighting from the vehicles. safe pedalling to school; Knowing the important signs.	To inculcate a sense of safety and secured travel on the road.
11.	Forts of Tamil Nadu	Accounts on the four major forts of Tamil Nadu 1. Gingee Fort 2. Vellore Fort 3. Fort St. George 4. Tarangambadi Fort	To learn about the four forts of Tamil Nadu their History and salient features • To understand their importance in the history of Tamil Nadu
12.	Musical Instruments (ancient and modern)	<u>Kinds of musical Instruments</u> wind, string, percussion <u>Ancient Instruments</u> Yazh, Parai, Kuzhal, Melam. Nadaswaram, Thavil, Veena Mirudangam and Violin <u>Modern Instruments</u> Drum, band, trumpet, piano, saxophone, fiddle. Important exponents – Names.	To know the history and structure of ancient and modern musical instruments. To trace the significance of each musical instrument. To develop an interest in Music and Fine Arts. To know the names of important exponents