

IV

CLASS IV

ENVIRONMENTAL STUDIES

Questions	Key Concepts/ Issues	Suggested Resources	Suggested Activities
<p>1. Family and Friends</p> <p>1.1 RELATIONSHIPS</p> <p><i>Your mother as a child</i></p> <p>When your mother was your age who were the relatives she lived with?</p> <p><i>Where do babies come from?</i></p> <p>Have you seen a newborn baby - where did she come from? Where does the puppy/ kitten/ calf/ chick come from?</p> <p>Do you know of people who are looking after/ have adopted a child?</p> <p><i>My extended family</i></p> <p>Are there things you learn from your family members? What? Do you do anything different from other members of your family? Do all your family members live with you all the time? When do you meet members of your family who do not live with you? What festivals do you celebrate together?</p>	<p>Change with time in people residing together. Family tree today.</p> <p>From the mother's body; mother-child relationship; Foster parents and adoption</p> <p>Family as a microcosm; (Family values – gender, earning capacity, decision making, caste, religion perceptions etc.); changes in family value system – lead to changes in society; Festivals and family gatherings</p>	<p>Discussion with mother, grandparents and other relatives.</p> <p><i>Kya tum meri amma ho?</i> (NBT story)</p> <p>Family members, family photographs,</p>	<p>Asking questions from mother about her childhood.</p> <p>Story telling and discussion.</p> <p>Discussion on family values, habits within family; discussion on family occasions.</p>



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<p><i>Feeling around with eyes shut</i></p> <p>With your eyes and ears closed can you identify the people/animals living with you merely by touching/smelling? By touching can you tell if anything is cold/hot, wet/dry, smooth/rough, sticky/slippery, soft/hard? Are there some things which you are not allowed to touch? Do you feel uncomfortable when some people touch you?</p> <p>1. 2 Work and play</p> <p><i>Fun and fights at play!</i></p> <p>Do you play the same games at school that you play at home? What things do you use to play with? Does the school provide these? Do you fight while you play? How do you decide the rules for the games? Does anyone stop you from playing? Who and why? Do you play with every child (boys and girls) in your neighbourhood? Are you stopped from playing with certain children?</p>	<p>Sensitivity to people who are differently abled; Senses of smell and touch; emotional response to a caress/slap; 'good' and 'bad' touch.</p> <p>Different games at home and school.</p> <p>Play as a way of social negotiation; rules of each game; fights and the need to negotiate – ideas of fair play.</p> <p>Restrictions on play; playmates from children of different gender or class/caste backgrounds.</p>	<p>Child's daily life experience, observation; narratives related to smell and touch; materials for games and activities.</p> <p>Tom Sawyer – story 'whitewashing the fence' or any other story on 'work' and 'play'.</p>	<p>Guessing game: Group activity where children touch different things with their eyes shut.</p> <p>Discussing and planning rules for local games and playing together in groups; writing them down.</p>



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<p><i>How they learnt their skills</i></p> <p>In your area do you know the people who do the following: make pots/stitch clothes/ make shoes/cure people/ build bridges/ embroider/fly planes/ repair cycles/ drive buses, etc? How well do you know them – their names, family etc? What tools do they use for their work? Where did they learn how to do these things?</p> <p><i>Fun at the fair/Circus</i></p> <p>Have you been to a fair or a circus? Which is the item you liked best – was it a ride, a game, something you saw/ate/bought? When do you fly kites? How do you make them fly?</p>	<p>Different occupations in the local region/ country; who does what work.</p> <p>Gender and work.</p> <p>Ways of recreation.</p>	<p>Local crafts persons and other professionals</p> <p>Circus/fair, a poem on <i>Mela</i>.</p>	<p>Drawing people with their professional tools; talking to some people and describe how they learnt their skills</p> <p>Kite-making and kite-flying activity in groups, making tops, writing a paragraph about an experience in a fair/circus.</p>
<p>1.3 Animals</p> <p><i>Animals and their friends</i></p> <p>Which animals like to move around in groups? Which animals are shy and do not come near you? Have you seen animals playing with or riding on different animals?</p>	<p>Herds; group behaviour; animal-human interaction.</p>	<p>Observation, child's daily life experience, story on animals moving in groups, visuals</p>	

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<p><i>Who is attracted to flowers?</i> Why do bees/butterflies come to flowers? How do people collect the honey from bee hives?</p>	<p>Honey from flowers; bee hive and basic idea of honey collection.</p>	<p>Film; description Illustrated narratives/discussion with beekeepers on the process of honey collection.</p>	<p>Observation of flowers and the insects that visit them, drawing the flowers, insects,; discussion on colour, fragrance.</p>
<p><i>Long ears or short?</i> Which animals have ears? Which animals have hair on their body?</p>	<p>Some animals have external ears. They also have hair.</p>	<p>Child's observation, information/description and illustrations about animals.</p>	<p>Listing and classification of animals with and without ears; with and without hair; drawing them; feeling them.</p>
<p>1.4 PLANTS <i>Roots of plants</i> Do all plants need water to grow? Which part of the plant absorbs water from the soil? When you tug at grass, why does it not come out easily? Why do plants/trees not get uprooted when there is a strong wind? Which roots are eaten by people during famine when nothing else grows?</p>	<p>Plants need water; roots absorb water and hold it to the ground. Roots eaten normally by people like carrots, radish, sweet potato, and during famine. Aerial roots of some plants</p>	<p>Child's observation, information about the roots eaten by people; pictures/specimes of roots.</p>	<p>Observation, collection, drawing of roots of different types, Observing trees/plants whose roots are affected by activities like construction/paving/plastering. Observation and discussion about swinging on <i>pipal/bargad</i> aerial roots.</p>
<p><i>Flowers</i> Which plants around us have flowers? Do they come only at some times of the year? How is the bud different from the</p>	<p>Flowering plants; seasons; observation of buds blossoming into flowers; different shapes, colours, petals, aroma, etc.</p>	<p>Child's, observation, stories/ poems about flowers, a visit to a garden.</p>	<p>Drawing flower motifs for clothes, animals, pots, etc. Making floral decorations; Observing the flowers and</p>

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<p>flower? What are the different kinds of flowers we have seen – shapes, colours, petals, aroma, etc? What do we use flowers for? Do you eat any flower? Have you seen flowers motif painted on clothes, walls, floors, pots, animals?</p> <p>Who sells flowers in our area? Where do these come from? How are flowers sold - for how much?</p> <p>Whom do trees belong to?</p> <p>Which plants/trees around you are looked after by people – by whom? Which are not? Whom do they belong to? Who eats the fruit of trees that grow wild?</p> <p>2. FOOD</p> <p>How we get our food</p> <p>How does food reach us? Who grows it? How you seen vegetables and fruits growing? How you seen plants of rice/ wheat/ dal etc? What are the spices do you know? Which spices can we recognize by smelling or tasting.</p>	<p>Flowers used in everyday life, festivals, etc. Floral motifs and designs on clothes, animals, pots, walls, etc.</p> <p>Knowing the local flower seller; some idea of the local unit of measurement (by cubit, fixed garland, each stem, etc.) and cost.</p> <p>Neighbourhood and its plants; wild and domestic plants;</p> <p>Fruits eaten by people living in forests.</p> <p>Cutting trees.</p> <p>From field to <i>mandi</i> - from market to house; grown by farmers; fruit trees, vegetables, cereals, pulses, oil seeds;</p> <p>Spices</p>	<p>Talking to flower sellers, gardeners, etc.</p>  <p>Local knowledge, information about domestic and wild plants (NBT books).</p> <p>Discussion with a vegetable seller/retailer in the mandi, / truck driver who transports food items.</p>	<p>buds, noting similarities and differences; observing /smelling and feeling different flowers.</p> <p>Listing of some common trees in the neighbourhood; discussion about ownership of trees; fruits that are not eaten by us.</p> <p>Listing plants children know that provide them food; bringing samples; common spices, observing and drawing samples, recognizing them by smell and taste.</p>

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<p>Special occasions</p> <p>When do many people eat together? What food is eaten? Who cooks it? How is it served?</p> <p>Does you get a mid day meal in school? - What items? Who provides the mid day meal?</p>	<p>Community eating; Mid day meal (where applicable).</p> <p>Cultural diversity in foods associated with special occasions like festivals, family celebrations/ ceremonies etc.</p> <p>Boarding school.</p>	<p>Visit to a langar/such occasions, talking to people who cook on such occasions.</p> <p>Narratives about hostel food/pantry car of train.</p>	<p>Discussion on occasions at which there is community eating; Listing of the different foods eaten at different occasions; drawing and descriptions of the large utensil used on such occasions</p>
<p>Tongue and Teeth</p> <p>How do we taste different foods? How do teeth help us to eat – are all teeth similar? Which teeth have I dropped and how are the new ones different?</p>	<p>Taste, tongue; teeth – types, milk teeth, permanent teeth.</p> <p>Tongue and speech.</p>	<p>Samples of different food items; peer observations; pictures or models of teeth.</p>	<p>Observation of each other's teeth, tongue and mouth; counting teeth; drawing; experiments with different tasting items.</p>
<p>Teeth, beaks and claws</p> <p>Are the teeth of other animals similar to ours? Can we tell what birds eat by looking at their beaks? Are the claws of birds also different? Is their shape related to the food they eat?</p>	<p>Teeth in some common animals; beaks and claws of birds – relationship with food they eat.</p>	<p>Visit to observe some animals; personal experiences; Visuals; (NBT books on birds.)</p>	<p>Observation and drawings of beaks, claws and teeth of different animals, birds, etc.</p>
<p>3. SHELTER</p> <p>Houses then and now</p> <p>Do you live in houses similar to ones your grandparents lived in? Are houses now made of similar materials as was</p>	<p>House change over time; rural and urban differences, multi-storeyed houses along with slums in cities.</p>	<p>Discussion with elders in the family. Visit to any old building in the area; changes in the construction of houses</p>	<p>Making models of houses; collection of materials used to make houses.</p> <p>Drawing pictures of old and new buildings.</p>

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<p>used then? What are the differences?</p> <p>Garbage? What do you do with waste in your house? Where do you throw it? Do you reuse any waste materials? Who takes away the garbage?</p> <p>Where animals live Do animals live in shelters? Which animals live in water? On land? Underground? Are there any animals that we see only at night? Where do they go during the day? Do we know of animals that make their own shelter?</p> <p>When birds make nests When and why do birds make their shelter? Do all birds make nests? Where do different birds nest - when do they fly away? With what different materials do birds make their nests?</p> <p>Mapping our neighbourhood Who are my neighbors? Do I have any of the</p>	<p>Materials used have changed.</p> <p>Waste materials, waste in our houses, urban/rural waste. Reduce garbage.</p> <p>Diversity in animal habitat and shelters. Some structures like webs have other purposes.</p> <p>Birds make nests for laying eggs. Nesting habits of different birds vary. Different materials are used for nests.</p> <p>Introduction to the concept of giving</p>	<p>with time; houses in villages and cities.</p> <p>Newspaper articles and advertisements on waste/garbage.</p> <p>Stories/pictures of habitats and shelters animals use or make.</p> <p>Child's observation; visuals; nest of any bird.</p> <p>Child's experiences, enquiry, observation and</p>	<p>Listing things thrown away as garbage, waste. Discussion on reduction of waste.</p> <p>Discussion, listing of animals with respect to their habitat and shelter; making birds nests with scrap materials, making caves, rat holes etc in mud/sand pits.</p> <p>Observation of a bird's nest and drawing pictures. Songs and poems; dance and movement to simulate bird flight.</p> <p>Discussion, enquiry from friends and neighbours;</p>

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<p>following near my house – a school, grocery shop, market, well, river or pond? Where are they with respect to your house?</p> <p>4. WATER <i>Water fit for drinking</i> What are the major natural sources of water in your area? Is the water fit for drinking – do you clean it at home? Do you know how dirty water can make you ill? Why do we not drink seawater? How is salt separated from seawater?</p> <p><i>Water sources</i> Where do you see large amounts of water in your neighborhood? Is it a tank/pond/canal/river/dam? What do men/women/children/animals do with the water there? Is it used for bathing/washing? Who bathes/washes there and who does not? How can we ensure that this water is not made dirty? Do you find factories/people dumping garbage or harmful materials in</p>	<p>directions with respect to any landmark; also a preliminary mapping process, further use of use of symbols, use of a scale.</p> <p>Natural sources; inland water and sea water; potable water; diarrhoea and other common water borne diseases, safe handling of water, purification of water.</p> <p>Reservoirs, canals, dams etc.; Different public activities at water bodies; protection of water bodies. Water as a scarce resource and the struggle for acquiring it (those who can exploit resources by digging deeper and deeper wells).</p>	<p>previous knowledge of routes. Local map /chart of the school and its neighbourhood.</p> <p>Health personnel of the local area, library resource.</p> <p>Film, photographs of dams/canals/tanks/ponds etc., local knowledge. Narrative on the recent struggle of the panchayat's against Coke in Plachimada, Kerala.</p>	<p>counting number of steps and estimation of distance for making a preliminary map.</p> <p>Discussion with the elders/health personnel about pollution of natural sources of water and its effects; demonstration/group activity of simple methods of water purification; separation of salt from saline water.</p> <p>Visit to the natural sources of water in the local area and observing what uses the water is put to. Discussion, and writing letters/making posters highlighting the misuse of the water body.</p>

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<p>rivers or seas? Are some animals also facing problems due to what we do to the rivers or seas?</p> <p><i>Our river/sea</i> Which is the river closest to our locality? Do we find any change in the water flow in different seasons? Which are the big rivers we know of? Have you seen the sea? Which are the animals found in the sea/river?</p> <p><i>Water vanishes when heated?</i> Why do puddles dry? In which season do wet clothes dry easily? When do they dry with difficulty? Have you seen and wondered where water droplets on the outside of a cold glass of water came from?</p>	<p>Rivers and seas; seasonal change in water flow; animals in the sea/river. Water pollution and harmful effects on animals.</p> <p>Basic processes of evaporation and condensation</p>	<p>Local knowledge, Story on the lines of the SCERT, Delhi Class VI Civics – lesson called Yamuna.</p> <p>Child's daily observations and class room discussions.</p>	<p>Drawing/Painting/Make a model of a water body in the neighbourhood (using scrap materials) as well as the animals found in the river/sea.</p> <p>Activity on water drying up from a wet cloth or dish of water in different conditions such as sunlight and shade.</p>
<p>5. TRAVEL <i>Animals for transport</i> Have you traveled on a tonga / horse carriage? How is it different from travelling on a bus? Are the horses well looked after?</p>	<p>Use of animals for transport; sensitivity towards animals.</p>	<p>Personal experience of travel; songs about travel by tonga, etc.</p>	<p>Enacting instances of animals used for transport and people riding them.</p>

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<p>Have you seen a horseshoe? Why is it used? What materials have you seen being transported using animals? Are there any special occasions when you ride on animals?</p> <p>Paying for travel</p> <p>How do you pay for our travel by train/bus/boat etc? Who issues/checks the bus /rail ticket? Which currency notes and coins have you seen? Pictures of which animals can we see on a ten rupee note? Which symbol is found on every coin? How many scripts can you recognise on a note? Who is the person whose face is shown on every currency note? What coins/notes did our grandparents use when they were young?</p> <p>Travel to another place</p> <p>Do you know anyone who has traveled very far from your village/city? Why did they go so far? What are they doing there? How do they travel when they visit your family?</p>	<p>Familiarity with currency notes and coins, national symbols, recognizing some language scripts; Introduction to Mahatma Gandhi Old coins, change.</p> <p>Different land forms, languages, clothing, food habits, some idea of another country (only through a story/imaginary narrative).</p>	<p>Coins and currency notes; railway and bus tickets. Old coins/Pictures of old coins; visit to a museum.</p> <p>Travelogue describing the place they have come from; description of a train/ship/plane journey.</p>	<p>Enactment of a bus journey. Comparison of coins and currency notes; /Tracing of coins. Designing a school emblem/logo.</p> <p>Reading and listening, discussion, writing about a traveling experience of oneself or visiting relatives.</p>



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<p>6. Things We Make And Do</p> <p><i>Building materials and tools</i></p> <p>How are bricks made? What tools have you seen being used for making a wall or a house? Is there a bridge to cross while coming to school? What kinds of bridges have we seen and where? How many kinds of bridges can we make?</p>	<p>Process of making involves raw materials, tools, labour, energy—changes over time in these and in environment too.</p> <p>Materials and tools used for construction;</p> <p>Different skills of people at engaged in a construction activity.</p>	<p>Narratives and pictures of different bridges children cross, on the lines of the book – Going to school in India (by Lisa Heydlauff Penguin); of the process of construction, use of tools and materials.</p> <p>Observation of different bridges; making bridges.</p>	<p>Making bricks; drawing and talking about different tools.</p> <p>Observing, drawing and describing different bridges and how people make their own local bridges from ropes, bamboo and logs of wood.</p> <p>Making toy bridges in school.</p>

