



Creating a Society that Cares

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“We have not inherited the earth from our ancestors. We have borrowed it from our children”

Our Children

“Your children are not your children.

They are the sons and daughters of Life's longing for itself.

They come through you but not from you,

And though they are with you, yet they belong not to you.”—Kahlil Gibran

They are like flowers, each special in its own way. They are like mirrors, reflecting our thoughts and actions. They are like birds wanting to fly and explore the world. Children are learners from the minute of their birth. They are curious, intuitive, creative, inventive and a lot of other things. Unfortunately, their wings are soon clipped by the restrictions of our societal norms.

Children need time with themselves and with each other. They need to communicate with each other; they want to share and they want to do/explore on their own. In Maria Montessori's explanation of the role of work in the growth of self-reliance, she explains that children need time to simulate the world in their minds, and need concrete material to make abstract concepts comprehensible. Children should have the freedom to do constructive work on their own. The process and procedure of handling the material and completing the task inculcates self-discipline and responsibility towards the environment. Mahatma Gandhi dreamed of an educational system where children learn by doing different constructive work and derive learning, a feeling of accomplishment and satisfaction from doing the work.

Our attitudes and concerns are influenced by our education. In the contemporary educational system, children are driven to learning by studying

facts. They are pushed into nail-biting competition to be 'on top'. It is a fight for 'survival of the fittest'. There is no time for contemplation and reflection. And they fail to learn to take responsibility for their actions and the consequences thereof.

This kind of education not only estranges the children from Mother Earth, it also makes them insensitive about their connectivity and dependence on Nature. It removes them from the importance of life-values and empathy for other people. It leaves them distraught, helpless and self-centred. From the first day of school, they experience their first restriction in their freedom of movement in the confinement to the desk and chair. Energy, which is normally consumed by children in running around and laughing happily, is dammed up. The children feel frustrated and express it either through tears or by show of violence. Frustration is a common emotional response to opposition. Related to anger and disappointment, it arises from the perceived resistance to the fulfilment of the individual will. Frustration can result from blocking motivated behaviour. Each individual may react in a different way. He or she may respond with rational problem-solving methods to overcome the barrier. If unsuccessful, he or she can become frustrated and behave irrationally and aggressively.

There is an awareness of how the present educational system affects the personality of the children and through them, the society. The internally assimilated lessons from the present educational system contribute to the callous attitudes of the children towards other human beings, animals and trees. In the present educational system, there is place only for competition. This is an extension of the 'divide and rule' policy introduced by the British in India. Competition fosters jealousy, hatred, injustice, greed and carelessness. No wonder the attitude of

some of the youth today, especially in the cities where competition is more emphasised, is either suicidal or homicidal.

It is our responsibility as guardians of our children to review, re-examine and re-design the educational system itself and not just the content. We need an educational system that will help our children to become what they were meant to be for a society where co-operation, love and harmony will be fostered through care for the earth and all forms of life. There is only one earth and now is the time to care for it by re-designing our curriculum to inculcate caring.

Objectives of including woodcraft in the school curriculum

1. Natural learning process

To remove bookishness of knowledge and make the educational process at school also a continuum of their own natural learning process and life -



which means that the primary medium of acquiring knowledge is experience (through the five senses and a sixth sense: that of logic).

2. Non-violence

To create an educational process that has non-violence at its core. In conventional systems there is an extreme imbalance of information and experience which creates dissonance and leads to internal and external violence.

This curriculum is being evolved with the idea of nonviolence as both the process and the product.

3. Experiential learning



To create a learning environment which stimulates and facilitates experiential progression of knowledge in the child's mind.

4. Synthesis of knowledge

Creating an attitude among teachers and other stakeholders of the curriculum process, that the knowledge process is organic and naturally needing the learner to cultivate the ability to connect and synthesise pieces of information, and that this can be greatly enhanced by information, and that this can be greatly enhanced by making something with their own hands; learning is a continuous process and while crafting objects with their hands the children are able to relate to the concepts with an understanding of their connections with everyday life.

5. Autonomy / Self-reliance

Creating a learning environment and process that incorporates autonomy and self-reliance of each unit - be it teacher, child, a class, the school and so on.



This manifests in the curriculum process by necessitating the participation and ownership of both the teacher and the

child in the development of the curriculum itself thereby making it dynamic, evolving and responding to the situation at hand and a changing world and society.

6. Indigenous ways of knowing - Integrated / multidisciplinary

To acknowledge, validate and deepen dialogue with indigenous and traditional knowledge systems and ways of knowing. A key manifestation of this in the curriculum is the integrated and multidisciplinary approach to subjects.



7. Self-knowledge

Character building by sensitising the child to his / her own capabilities, strengths and weaknesses in a cooperative environment. Providing scope for children with less interest in academics to relate to the concepts in other ways and thereby inspire them to pay attention to academics.

As the children touch, feel and work with wood of different kinds, polishing, crafting and creating, an understanding of trees deeper than ever before, they will blossom as individuals, empathise with the environment and will help each other rather than compete with each other. They will learn to handle and care for simple tools improving their hand eye coordination, space organization and discipline. They will learn value of hard work, they will feel the contentment of creating something and their confidence and self-reliance will improve far beyond our imagination. The beautiful and useable articles they will create will make them see themselves in the work. Reflection, diligence and pursuit of perfection will become second nature to them. Something will begin to work up on their body and soul and they will grow up to be graceful, honest, creative, hardworking and content.

As Herbert Read says, ‘A child’s art work is its passport to freedom, to the full fruition of all its gifts and talents, to its true and stable happiness in adult life. Art and craft work leads the child out of itself. It may begin as a lonely individual activity, as self-absorbed scribbling of a baby on a piece of paper. But the child scribbles in order to communicate its inner world to a sympathetic spectator.’

Rabindranath Tagore wrote: ‘If educational processes are created to aim for the unity of the whole humankind, the beginnings of this are in the growth of love of the baby for the mother, for the immediate family and ultimately to universal love. But the foundations of this unity are laid in creativity.’

WOOD WORK CRAFT AND ITS ROLE IN CONTEMPORARY EDUCATION

Activity	Age group/ class 5-8 YEARS	Age group/ class 8-11 YEARS	Age group/ class 11-14 YEARS	Dispositions cultivated
RHYTHM 5 minutes	Start by a rhythm using claps and stamps and the affirmation WHAT I DO, I DO WELL. Stand in a circle, clap for each word first time, when said second time clap for the first 5 words and stamp for 1, then clap for 4 stamp for 2, and so on till clap for 1 and stamp for 5 and next stamp for all words. Reverse the process.	More complicated rhythm of walking forward saying I TREAD MY PATH WITH COURAGE AND STRENGTH. First walk all 8 steps forward one step for each word. Then walk 7 forward and 1 back ward and then 6 forward and 2 backward till you walk all backward. Then reverse the process.	Stand on the toes and say one sentence at a time. 3 times I AM STRONG, I AM STRENGTH. I AM HEALTHY, I AM HEALTH. I AM WEALTHY, I AM WEALTH. I DO NOT WORRY. I DO NOT ANGER. I DO MY WORK HONESTLY. I SHOW LOVE AND RESPECT FOR ALL LIVING AND NONLIVING THINGS. I AM THANKFULL FOR EVERYTHING. I ALWAYS KEEP A SMILE ON MY FACE. I AM HAPPY, I AM HAPPINESS.	Value - cooperation, concentration, positive thought & action. Process - claps and stamps, discipline. Work - clean the space and organise into a circle, include all children. Justice - alternately placed boys and girls. Art - sequence and rhythm. Adaptivity - can be done in any language and any positive sentence can be used. Academic - language, pronunciation, counting, balance.

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<p>DISCUSSION</p> <p>Teacher directs the discussion by asking pointed questions</p>	<p>What objects in their surrounding are made of wood: (tables, chairs etc., paper, pencils, writing pads desks, black boards, notice boards, doors, windows, roof etc) Why these things are made of wood? Which other materials can be used as replacement? Where do we get our food from? Who eats what? Properties of wood related to density float or sink experiment with dry and green wood. Other functions: purifying the air, shade, home for other creatures, first step in the food chain etc.</p>	<p>The same discussion will yield different conversations and the children will learn from one another. There will be knowledge base visible within the class and the children find it easier to learn from peers. Add further discussions about the Conductivity properties of wood. Wood as a renewable energy Other functions of trees: creating a habitat for other life forms, the reasons for the need for bio-diversity.</p>	<p>More discussion on processed wood and the advantages of being creative and using waste wood. Other aspects of wood as in fossil energy and fuel briquettes.</p>	<p>Learning to listen to others and respect their point of view. Expressing their own thoughts without inhibition and learning to take criticism positively and learn from ones mistakes. Learning to analyse, reflect and use logic to arrive at certain conclusions after observation. Co-operation, consideration of others, self-discipline, self-evaluation, self-validation.</p>
<p>CONCEPT to be touched on</p>	<p>Learn to notice different materials, their uses, properties and possibilities. List other materials and their sources- aluminium, iron, Copper, steel, cloth, brass, List objects made from each material in their surroundings. Understand that materials are processed before they can be used, Draw attention to the fact that earth is the only source of all the raw material.</p>	<p>Draw attention to the objects and ask which material they are made from. Eg; vessels, shelves, furniture, mats, clothes, houses, tools, electric wires etc Why are they made from that materials only and not others , what are the criteria to be considered before using raw materials to make something.</p>	<p>Discuss what has happened due to indiscriminate ways of using material. How traditional materials have been replaced by non-degradable plastics. Discuss the possibility of wood as a renewable resource without depleting forests. Talk about Agro forestry and other processed substitutes of wood like plywood, particle board, hard board and new wood. Protection of wood. effects like warping, splitting, bending, termite attacks, borers etc.</p>	<p>Establishing linkages, understanding the need for reduction of waste, reuse of material and enhancing product quality for longevity instead of the present trend of use and throw products.</p>

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STORY TELLING	Make up a story about what would happen if trees were to have feelings and talk and inform us about their needs. Their need for water, sunlight, air and a friend who would care for them.	Show animated movies like THE LORAX which is about a city where there were no trees and how it came to be that way and how one boy decides to bring trees back.	Tell the story of the chipko movement to save trees. The modern Chipko movement started in the early 1970s in the Garhwal Himalayas of Uttarakhand, by Shri Bahuguna, then in Uttar Pradesh with growing awareness of rapid deforestation.	Understanding the importance of trees. Learning what makes up the tree- carbon cycle. Sympathy and empathy for the plant world.
FIELD VISIT: To a nearby garden/ forest/ woods/ avenue of trees. ACTIVITIES	Collection of leaves, flowers, seeds (After talking to the plant and asking for its permission and thanking it with a hug or kiss) Bark rubbings, leaf impressions using crayons. Drawing anything they like- life sketches.	And observing different types of vegetation and different layers of plant life in the wild. Drawing leaves as they see them, root systems of small plants, flowers and their parts.	And silent meditation. Drawing parts of the plant, flower or tree and then drawing the whole tree as a form as seen from far.	To enrich the child emotionally with wonder at how everything is created. To cultivate reverence for the environment and mother earth.
CONCEPTS INTRODUCED	Uses of plants, Names of parts of the plant and their function. Names of vegetables and fruits. Names of spices used for cooking. Names of simple and everyday medicinal plants and their uses (children should talk to their parents and give feedback) Learning to see difference between types of leaves, types of seeds, types of roots.	Function of plants and trees- Bio diversity. Needs of plants- How they fulfil them- the wonder of how the whole living world is made from a component of air CO ₂ . How plants are the first step in the food chain. Try to identify by looking at the leaves of a germinated seed if it is a monocot or dicot.	Climatic regions of the world- Deserts, Grasslands, Tropical forests, Ever green forests. How flora depends on climatic conditions and fauna depends on flora. Degradation of forests – reasons for the same. Plantations for timbre rather than using up forests - agro forestry	To emphasise empathy with the other living beings. To bring to the child the power of his or her own observation to generate information rather than collect information from books. Self-reliance, aggregation and integration of knowledge as against segregation when learning subjects.

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<p>ACTIVITIES based on field visit in class room</p>	<p>Sorting of the material collected- size wise, colour wise, texture wise, and quantity wise. Counting of the different classifications. Painting impressions of colour as it comes to mind. Drawing and expressing the uses of the tree to us and other living things around us. Colouring with crayons.</p>	<p>And identifying with the help of peers, parents and teachers the different plants collected. Listing their uses and making a class herbarium. Making a table with the various types of plants and their uses and attempt to identify the timber varieties. Writing a poem about one preferred tree or plant. Writing about the experience of the visit, what they saw etc.</p>	<p>And writing with more feeling component. Can decide to make a comic strip about the visit to the forest. Understanding structure from the way the trees are, the way the branches go out and the balance of the tree. Drawing first a leaf, then a branch and then the whole form of the tree observing the way the leaves are placed and the way the branches are organised with focus on stability of the tree or plant.</p>	<p>Learning classification, counting using leaves and seeds. Learning to represent thoughts in pictures. Learning classification of trees and plants, the botanical name, common name, reason for the need of botanical naming systems, uses of the plants. Learning to make tables to classify information to make it easily accessible. Language skill development, expression of thoughts in words. Creativity in use of the language to write poems. Learning to see and draw objects as they are without using the mind for interpretation. Improves observation skills. Understanding the basics of geometry, form and stability.</p>

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COMPETENCIES	<p>Classification by size, colour, texture etc, Counting, using tens to count large quantities, Observing differences between leaves and flowers to identify the differences. Use different leaves, sticks and stones to make collages.</p>	<p>Different layers in a forest. Types of plants- grasses, herbs, shrubs, trees, epiphytes, parasites. Make a table of the types of trees against their uses like fuel, timber, medicine, food and fruit, habitat makers (banyan tree) etc. Needs of plants and trees and how they fulfil these needs themselves.</p>	<p>Bio diversity of plant and animal life. Function of plants in the ecosystem. Interdependence and symbiotic relationships. Source of energy synthesis and therefore basis of all life on earth. Concepts of angles, how acute angles occur in nature, triangle the strongest form. etc.</p>	<p>Learning to identify trees and shrubs looking at the form and remember their uses as medicine. Understanding the need for bio-diversity in nature and relating it to the health of the ecosystem. Thankfulness to nature. Learning about balance, root systems, branching patterns and leaf and flower and seed designs for the facilitation of pollination and dispersion. Observation skills, Drawing ability, self-expression, names of colours.</p>
DEMONSTRATION	<p>Children observe the carpenter working.</p>	<p>The children find a person who does good woodwork and request him to come to the school and make something for them. In the process they talk to people and locate the carpenter.</p>	<p>All the children observe the carpenter working and interact with him or her and ask him or her anything that interests them. Try to find about how he/she learnt the craft and how they are doing financially.</p>	<p>Learning the uses of the various tools by watching the carpenter work. Understanding the need for promotion of traditional crafts. Develop aesthetic sense and creativity.</p>

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<p>FIELD VISIT: To visit the local saw mill with carpenter</p>	<p>Not needed for this age group</p>	<p>Observing the tree rings and how age of trees is obtained from them.</p>	<p>Types of timber and their origin. Costs per unit - learn unit of measuring wood.</p>	<p>Learning about the effect of seasons on plants and how the trees record time. Annual, biennial and perennial plants.</p>
<p>CONCEPTS</p>		<p>Unit of measurement of length and cost of timber. What can be made with waste of saw mill cutting, from saw dust? Curing of wood, Treatment of wood. Bamboo as a special wood. The tensile strength of bamboo makes it very versatile. Almost replaces steel if it can be kept safe from borers and termites.</p>	<p>Export and import of wood, Its cost and availability implications. Locally available timber varieties and their specific uses. Effects of deforestation on soil and animal population. Its implications for farming- conflict between man and wild life.</p>	<p>Calculation in square feet and cubic feet. Concept of volume and how it is measured. Learn about volumes and how they are calculated for different solid shapes. Cutting wood with minimum waste using concepts of LCM AND HCF. Connecting the phases of the moon with growth of plants and movement of sap in the plants. Harvesting of Bamboo was traditionally done during new moon days because the sap is low and therefore less chance of insect attack.</p>

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ACTIVITY making wooden objects	Using a set of prepared material incorporating working with real screws, wooden nails and real nuts and bolts, screw drivers, wooden hammers etc Take a piece of wood or a coconut shell and sand paper it till smooth and make cups or ladles with them.	Making a simple toy using simple tools like small hatchets, hammers, hack saws, etc Make objects like A TOP, A BAT, A GILLI DANDA, A DRAG TOY etc.	THREE Objects; First: of their choice. Second: A utility object like a shoe stand, magazine stand, small stool etc. Third: A Utility object with aesthetic value. Pen stand, picture frame.	Feeling of competence, satisfaction and contentment. Learning about one's ability and limitations, patience and perseverance. Learning to appreciate steadiness of hand and unite it with the creativity of the heart by working out the problems using the mind.
COMPETENCIES and CONCEPTS	Understanding the need for silence when such tasks are performed. Types of joints possible. Observation of shapes, size and compatibility. Measuring using non-standard tools of measurement. Hand eye co-ordination, co-operation, Creative thinking	Add concepts according to objects made (if a top – spinning movement SO: talk about types of movement gilli danda, bat ball, only ball, drag toy, trajectory movement, movement in straight line, spinning motion, rhythmic or oscillatory movement and Cyclic movement. Which things spin or rotate: Earth, concept of axis, day and night on earth is an effect of the spinning movement of the earth. Seasons are the effect of Cyclic movement.	Concepts: of Force and how it makes work happen. Of friction and how movement is stopped. Of momentum and how we get thrown out of our seat when the bus stops suddenly. Relative movement; things seeming to go in the opposite direction when we travel in one direction. How the moon seems to be following us where ever we go and however fast we go; to make toys those go round making noises of different kinds (lots in Arvind Gupta's book).	Skills: Drawing of the top view of the object, side view of the object, deciding the size, material to be used – type of wood or processed wood. Procuring material; Costing of the material and labour and deciding value of the object. Justifying the labour value (self-esteem) How to handle and keep tools systematically. More concepts: take a small plastic bottle, cut it, fill it half with water, tie a string around it and spin it ... observe that the water does not fall down from the bottle. Explore centripetal force and centrifugal force in the throwing of a

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				top and its spinning too! Spinning wheel, takli work , make a colour disk.
DISCUSSION and THEATRE	Discussion on what are traditional crafts, how they are dying out: Using the theme of dying out of traditional crafts write a story collectively For the three age groups according to the ability and understanding of the children and then convert it into a play. Facilitator helps with script writing and the drama is performed before the whole school.			Language ability, confidence, collective creativity etc.

Born and brought up in Mumbai, Meenakshi has a degree in Architecture from Sir J.J. College of Architecture. She has worked with low-cost, eco-friendly construction technologies at Auroville, near Pondicherry. For several years, she, along with her partner, Umesh, has practiced various alternatives in farming, construction and education in a drought-prone area of Dharmapuri District in Tamil Nadu. In 2000, they started a school based on the ideologies of Rabindranath Tagore, Mahatma Gandhi and E.F. Schumacher using methods demonstrated by Maria Montessori, David Horsburgh, Rudolf Steiner and Janet and Glen Doman. They now run the Puvudham Rural Development Trust, that works on developing effective organic farming techniques and providing a humane and child-centered education environment for children in the Nagarkoodal area of Dharmapuri, Tamil Nadu, India. For more details, visit www.puvudham.org. She may be contacted at puvudham@gmail.com