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- Exploring Nature: Builds Critical Learning Skills
- Environmental Cognizance: Brighter Future
- Effective Strategies: Aware Caretakers
- Zero Garbage: Awareness to Action

**Teaching about
Environment
to Young Children**



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Project: Fascinating Animals and Our Relationship with Them

Renita Handa

Gargi Singh

Abstract

It is imperative that Early Childhood Education is recognized as the starting point for lifelong learning within education for sustainability. Depleting natural resources, increased greenhouse gas emissions, overflowing landfills, polluted waterways and endangered animals are a few of the effects demonstrating how societies have adopted lifestyles that have focused on maximizing immediate comfort and convenience at the expense of future generations. As early years practitioners we have a role to play in offering children experiences and in supporting them in gaining knowledge and understanding of the environment as it relates to their society. At an early age children can begin to develop the critical thinking skills required to make the sort of informed decisions that will affect the quality of not only their own and the lives of others around the world, but also the lives of future generations.

This paper presents a glimpse of a six week research project undertaken by the Senior Kindergarten children at Redbricks Junior School on the theme of 'Our World of Animals'. The paper covers the evidences from the projects, which showcase the processes of learning as well as the in-depth thinking of children.

Educating For Sustainability (EFS)

Educating for Sustainability is 'learning that links knowledge, inquiry and action to help children build a healthy future for their communities and the planet.'

Integration of sustainability in early childhood programmes include benefits such as:

- In early childhood, children develop their basic values, attitudes, skills,

behaviours and habits, which are long lasting

- Young children are influenced by these issues such as the weather change and pollution
- 'Nothing that surrounds me is strange to me' - Young children are exposed to these issues (such as the floods and the famines)
- Young children are not victims but can be active and informed participants.

Schools can educate Young Children for Sustainability in a number of ways:

- **Curriculum Connections:** Curriculum can be framed using the lens of sustainability to integrate curricular topics/themes, to teach skills and content and to help children make connections. For example - animals, biodiversity, ecosystems etc.
- **Community Partnerships:** Ongoing community partnerships are vital to connecting the curriculum to relevant, real-world issues. For example, partnerships with animal welfare organizations, municipal corporations etc.
- **Campus Ecology and Culture:** Sustainability must be modeled as well as taught. It could be integrated in everything from student-leadership and school-wide decision-making, to school lunch programmes, waste management, cleaning products and purchasing policies.
- **Collaboration:** To achieve sustainability, collaboration is an essential skill and process. Planning and learning must take place across all grade-levels, content areas, as well as with the larger community, families, business, government, non-profit organisation in

order to create sustainable communities. For example, inviting environmentalists to the classrooms.


According to the United Nations Convention on the Rights of the Child- 'The child is a right holder, an active participant and contributing to make society's present and future, not an invisible, marginal, worthless being.'

Project Approach

The theme 'Animals' was chosen as a research project considering children's inherent curiosity towards animals as well as its scope to promote education for sustainability in young children. As young children begin looking around their world, they are automatically attracted to things that move, are brightly coloured and are easy to see. So, they get naturally fascinated by animals that make interesting noises, are capable of interacting with them and are unpredictable in what they do and how they behave.

So, the project journey witnesses three phases:

Phase 1: The beginning provides opportunities to children to share their experiences, current knowledge and



interest related to the topics.

Phase II: Once all experiences are shared, children move to phase two to develop the project. During this time period, the teacher arranges multiple opportunities for the children to do field work, talk to experts, read through books and engage in first hand experiences to gather new knowledge and seek answers to the questions raised in the beginning of the project.

Phase III: The project is culminated in phase three. Children along with their teacher reflect back on the entire journey of the project, select evidences from their project journey and display them. This is the phase where children share their project story and connect with parents, other class children and communities at large.

Children of various age groups ranging from one and a half years (Playgroup) to five and a half years (Senior Kindergarten) carried out the project on Animals at Redbricks Junior School.

There were six research questions to guide the project for all the classes.

- What are animals like?
- Where and how do they live?
- How are humans and animals similar and how are they

different?

- What kind of a relationship do humans and animals share?
- What are the ways in which animals are cared for and treated?
- Do animals need to be protected?

The interest areas as per age varied across the classes.

- Largely for playgroup children, the animal world was discovered through their senses, by seeing, touching, smelling etc.
- For nursery, when they see animals, how do they feel. Interestingly beautiful emotions of happiness and joy emerged when they referred to animals.
- For Junior Kindergarten, the learning and exploration moved to a bit complex and in-depth study on characteristics, uses, care and protection of animals. This also helped them to discover the way animals are treated in our city.
- For senior kindergarten, the project inquiry was on animal characteristics, similarities and differences and the interdependency between humans and animals.

Each class also did an in depth study of one animal of their interest and that was

converted into life size models by the children.

As a part of the project, various field visits were planned such as a visit to the zoo, cowshed, stable, veterinary clinic etc. Different animals like camel, dog, iguana and tortoise were also brought into the school campus. Animal experts, caretakers of pets and even zoo caretakers talked to the children about animals. They addressed various questions asked by the children about animals and their world. Children expressed their emotions in forms of clay models, drawings, stories, riddles and songs. The project has been documented in-depth through various stories and evidences of children's works. Some beautiful messages also emerged from children that have been captured. Children enjoyed the animal project exuberantly. The entire journey has been a great learning process for children as well as for teachers, where various things were discovered about the natural world through the children's exploration.

If you are thinking a year ahead, plant a seed.
If you are thinking a decade ahead, plant a tree.
If you are thinking a century ahead, educate the people.
(Chinese proverb)

Project of the Senior Kindergarten Class (4 to 5 year old children)

Phase I: Beginning the Project

Children shared their prior knowledge and experiences related to the animals. Interestingly, children talked about the names of many different animals like panda, polar bear, sea horse, unicorn, seal and walrus, apart from the other common animals. They were also able to explain which animal belonged to which category.



Children sharing their experiences

Children had a lot of questions about animals, which reflected their eagerness to learn more. A few questions asked by children were:

'Why are the teeth of wild animals sharp?' - Saanvi

'Why is lion the king of the jungle?' - Saanjhvi



'Why do rabbits have big ears?' - Debangi

'How do animals cut their nails, specially the animals with sharp nails?' - Niyati

They also drew pictures of animals they could recollect out of their memory. The questions asked also helped the teachers to understand that children were interested in knowing more about the physical characteristics, similarities and differences, interesting facts related to animals and get into the process of their detailed study.

Reet
11/9/13

Free drawing
Project - Animals

Sr KGA
Phase 1



Reet

Saanjhvi



Saanjhvi

Phase Two: Developing the Project

Children generated ideas for the field trip places and pre-visit questions, which would help them to find out more about animals. Teachers decided to focus on the following research questions for the in-depth inquiry based on the children's interest.

Focus Areas

- Unique characteristics & evolution of various animals

- Similarities and differences between animals and humans
- Mutual dependency
- Endangered animals

Questions framed on the basis of focus area

- What are animals like?

- How are humans and animals similar and how are they different?
- What kind of a relationship does humans and animals share?
- What are the ways in which animals are cared for & treated?
- Do animals need to be protected?

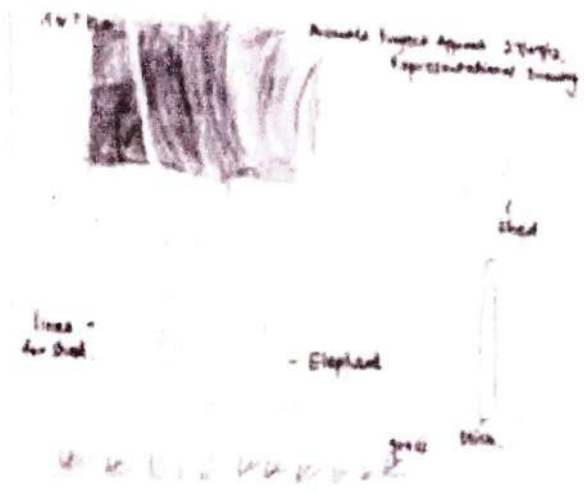
Some pre-visit questions planned by children before a field trip to the Zoo

- *'Why do you keep animals in zoo?'*
- Advik
- *'How do you take care of animals?'*
- Ritisha
- *'What food do you give to animals?'*
- Ria
- *'From where do you bring animals?'*
- Aayush

Children visited Kankaria zoo as a part of their field trip and lot of learning happened there. They had first hand experiences and various activities were undertaken in different groups such as detailed observation, counting, representational drawing, observing and talking about social behaviour of animals, tally marking, interviewing zookeeper, collecting sensorial things, as well as finding out similarities and differences between animals. Myths of children about different animals got clarified and they also discovered many



Children talking to the zoo keeper



Drawing representation of what children saw at the zoo

new aspects about animals.

Once back in the class, they represented what they had observed and discovered in the form of drawings, clay models, stories, rhymes and riddles. They also referred to the encyclopaedia, discussed and talked by correlating their knowledge.

Riddles Created By Children

Advik: "I have two big horns. Who am I?"

Revanth: "I am very big animal, I have very big eggs, my baby comes out from the egg. Who am I?"

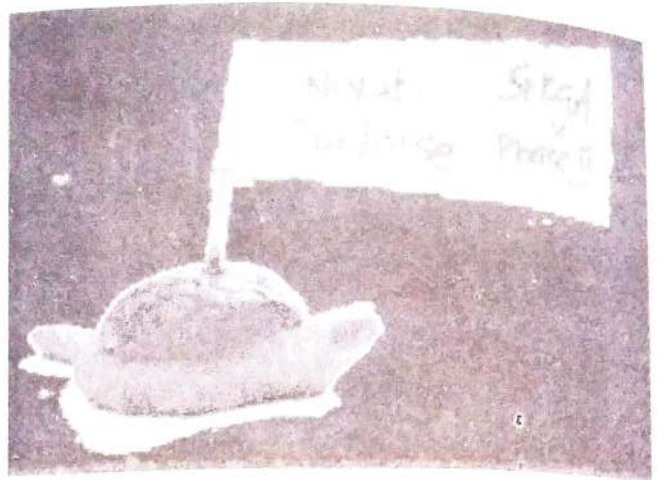
Story (As narrated by the child)

Saanvi: 'Don't hurt anyone.'

"One day one lion, he was walking then he think I want to sleep some time. Then he sleep. Suddenly one dinosaur come. Dinosaur walking, lion see what come this? He run away back home. Then dinosaur walk lion's back and lion see back and there were so many dinosaurs in front also then every dinosaur eat the lion. The tortoise, rabbit, tiger, zebra, monkey, giraffe are sad because lion was dead. Every animal go sadly home and they cry because lion is die. Then tortoise has no family. Tortoise sit under the tree and pray god, Please give me family. Then all animals became family and one lion also come and so they were happy."

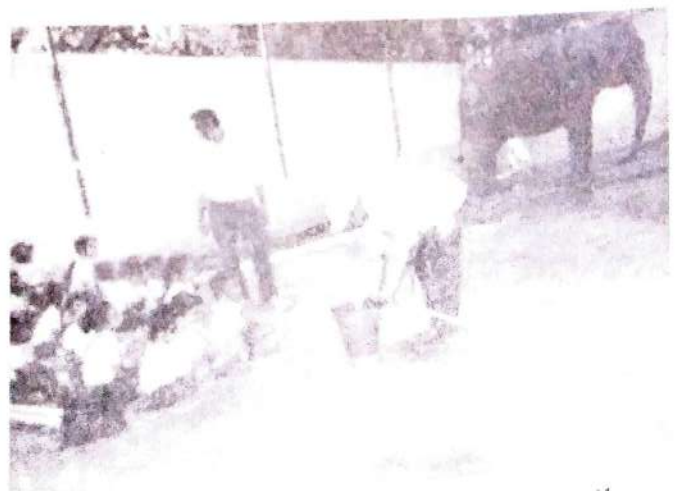


Clay model of a lion



Clay model of a tortoise

One group of children and teachers revisited the Kankaria Zoo to study an elephant in more detail. Whereas the second group, which was more interested in dinosaurs and endangered animals, observed the video related to the evolution of dinosaur, types, their fossils and eggs, habitat, and how they got extinct. They also followed the same processes done by the previous group except interviewing and observing the animal in real but they explored the encyclopaedia and videos related to dinosaurs and learned about it.



Studying the elephant in detail

Questions asked by teachers and the responses given by children

Q: If there are no animals what will happen?

Responses by the children:

Advik: "If there are no lions, then, animals will increase in thousands and enter the city and will destroy us."

Bhavya: "If animals increase in number then they will become our friends".

Sarvi: "With sheep we get sweater, cow gives milk so, in winter we will feel cold and we also cannot get milk to drink."

Saanvi: "If there will be no cock, then it won't make the cock a doodle do sound in the morning and we won't be able to wake up."

Making Three Dimensional Models:

After the enriching experiences at the field trips, the idea for creating a three dimensional model of an individual animal also started emerging. Each class chose a different animal ie. An Elephant and a Dinosaur and started the work to create a life size model. Children decided to observe the animal in its large form so they observed it on the internet and also referred the encyclopaedias and big picture books. Teachers brought a big picture of the animal to the class for them to refer and create a blue print of the animal's model. Later they decided to first create a small model of it and came up with different ideas for the use of materials like, Children utilized their

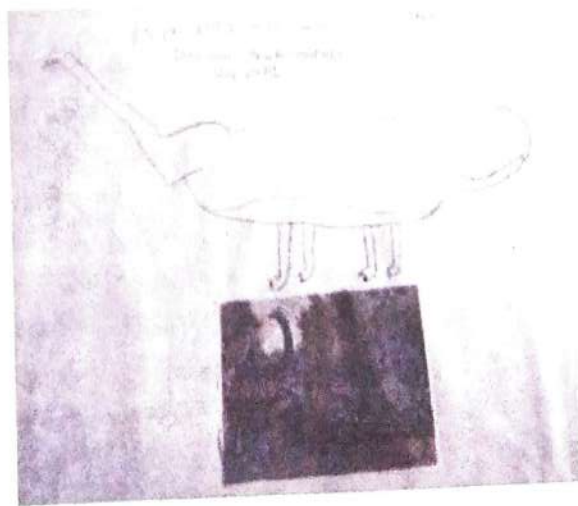


A dinosaur

learning and started working on the blue print of the model. With the guidance of the teachers, they also decided on the materials to be used, how to proceed, where to make, how to make, etc. Finally, the models and works for the final culmination day were getting ready.

Phase Three: Concluding the Project

Children created small clay models of the elephant and dinosaur, which served as a mini creation for the later creation of the huge model.



Free hand drawing of a dinosaur



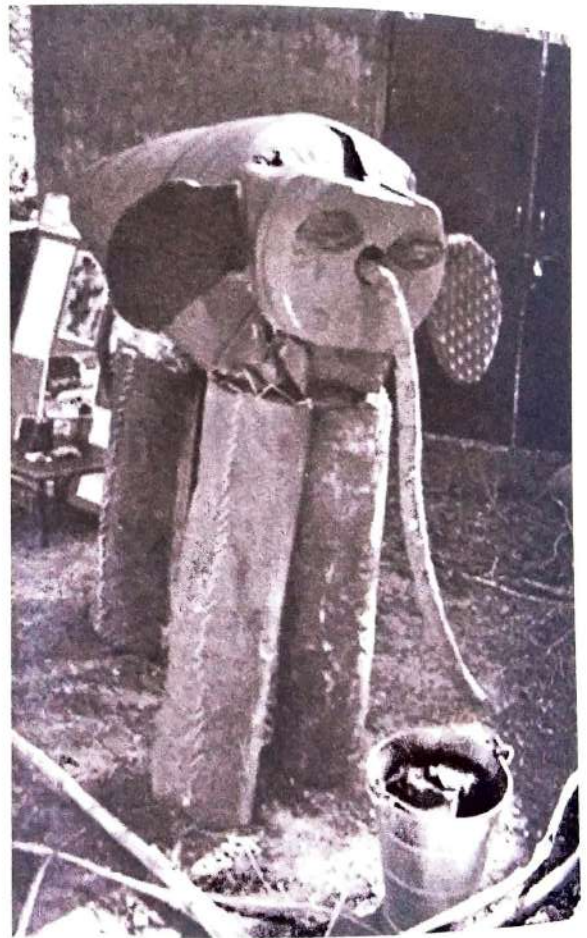
Clay model of a dinosaur



A model of a dinosaur

During model-making, children took ownership and developed their interpersonal skills by working together in groups. What surprised the teachers was the way they had transformed from the inquirers to masters. Overall their hidden potential also came out in different areas. The participation level of each child in the creation of the model was noteworthy. Children decided to share and talk about project to their parents and took pride in their work. Children shared their learning by becoming "experts". The richness of the interaction between


the peers and among the adults showed the increase in their social competence as they explained their entire learning experiences throughout the project. Later the study groups reviewed the work they had done and the answers they had found to their questions. They shared their work with the rest of the class and revisited their original webs. The children found that they could answer in detail most of the initial questions they raised.



A model of an elephant

Reflections and conclusion of Project

The children and teachers felt a sense of



happiness at the end of this project. It was a lot of fun planning the animal project with the children. They had become so adept at working together in small groups that the learning took place very smoothly. Teachers felt the fieldwork was very productive because children were able to apply the knowledge they had gained during fieldwork in a variety of ways and were also able to connect with the community. Each group chose to share their

information using different methods and different media. The project provided many opportunities for children to use a variety of skills and helped reinforce basic skills and concepts. This project left a lasting impression on children and teachers. The project was an experience that helped the children develop in totality and teachers also gained a better understanding related to animals by working on this project.

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Highlights of this issue

- Children can be the most effective change agents.
- Integrating nature education into the curriculum teaches aesthetics, caring, respect for the Earth.
- Effective environment helps children to develop critical thinking and problem solving skills.
- Sustainable future can be a reality only when we nurture the natural curiosity of the children into enduring love for nature.

