

Eco Garden

Design Intent

Welcome to the *Eco Garden*, where curiosity takes root and the rhythms of nature unfold before your eyes. Here, kids dig deep into the soil, planting seeds with eager fingers and wide-eyed wonder. Chickens cluck softly from their coop, while garden beds buzz with life, teaching that food begins with care, not convenience. A sun-powered greenhouse glows with warmth, where little hands tend leafy greens and bright blooms, and learn that energy can come from the sky, not just a switch. Nearby, the flower shop lets children harvest and share the fruits of their labor, completing the joyful loop from garden to table. In this vibrant world of growing, giving, and greenery, children don't just observe nature...they become part of it.

Technology Components

- Digital Microscope - A digital microscope is a powerful tool for encouraging curiosity and close observation. Children can use it to examine natural objects like leaves, petals, insects, seeds, or rocks, noticing details they might otherwise miss, such as veins in a leaf or the texture of an insect's wing. It supports early science skills by helping children explore size, shape, texture, and patterns. Using a magnifier also promotes language development as children describe what they see and ask questions.
- Seven-Spot Ladybird (Digital Microscope Graphic 1) - The seven-spot ladybird is a small red beetle commonly found across Europe and introduced to parts of Asia and North America. They live in gardens, grasslands, woodlands, and hedgerows. The ladybird feeds mainly on aphids and other soft-bodied insects, making it a valuable natural pest controller for farmers and gardeners. In colder months, it often overwinters by gathering in large groups under bark, rocks, or inside buildings to stay warm.
- Moth (Digital Microscope Graphic 2) - Moths are a diverse group of insects with over 160,000 species found around the world. Depending on the species, moths can range in size from less than 1 inch to more than 11 inches across. Most moths live in forests, grasslands, deserts, and even near homes, resting during the day and becoming active at night. Adult moths often drink nectar from flowers, while caterpillars eat leaves, fabrics, grains, or other plant materials depending on the species.

Technology Components

- Hydroponics Grow System - A hydroponics system is designed to grow plants without soil by delivering water directly to the roots by flooding a tray. It typically consists of a sturdy frame supporting a shallow tray or channels where plants are placed, with a water reservoir and pump system circulating the solution. This setup allows for efficient water use, faster plant growth, and easy nutrient management.

Mural Features

- Sugar Maple Tree - The sugar maple tree is a tall, deciduous tree native to eastern North America, known for its fall colors ranging from yellow and orange to deep red. It typically grows 60–75 feet tall with a rounded canopy and distinctive five-lobed green leaves. In spring, the tree produces small yellow-green flowers, and its seeds spin to the ground like tiny helicopters. Sugar maples are especially valued for producing maple syrup and for their strong, fine-grained hardwood used in furniture and flooring.
- Peach Tree - The peach tree is a small to medium-sized fruit tree known for its beautiful pink blossoms and sweet, juicy peaches. It typically grows 10–25 feet tall and has long, narrow green leaves with rough bark. Peach trees thrive in warm climates with plenty of sunlight and produce fruit during the summer months. In spring, their fragrant flowers attract bees and other pollinators, making them an important part of many orchards and gardens.
- Chinese Pistachio - The Chinese pistache tree is a deciduous tree known for its rounded canopy and spectacular fall colors that range from orange and red to deep crimson. It usually grows 25–40 feet tall and has dark green leaves. This tree is drought-tolerant once established and is often planted along streets, in parks, and in yards because it adapts well to many climates. Female trees may produce small berries that attract birds and other wildlife in the fall and winter.
- Lemon Tree - The lemon tree is a small evergreen tree that produces bright yellow lemons. It typically grows 10–20 feet tall and has glossy green leaves and fragrant white blossoms. Lemon trees thrive in warm, sunny climates and need regular watering to produce healthy fruit. Their flowers smell sweet and attract pollinators like bees and butterflies.
- Crabapple Tree - The crabapple tree is a small ornamental tree known for its colorful blossoms and tiny fruit called crabapples. It usually grows 15–25 feet tall and produces pink, white, or red flowers in the spring that attract bees and butterflies. In the fall, the tree develops small apples that birds and other wildlife often eat. Crabapple trees are popular in gardens and parks because they change from spring flowers to bright autumn leaves.
- Raised Bed Garden Box - A raised bed garden box is a planting area built above the ground. It helps improve drainage, reduces soil compaction, and makes gardening easier to manage and maintain. Raised garden beds are best used in sunny outdoor spaces such as backyards, patios, school gardens, or community gardens where plants can receive plenty of light and regular care.
- Solar Panel - Solar Panel-Solar panels capture sunlight and convert it into electricity using special cells called photovoltaics. They’re often used on rooftops or in large solar farms to produce clean, renewable energy. The first solar cell was invented 140 years ago.

Mural Features

- Mockingbird - A mockingbird is a medium-sized songbird that usually grows about 8–11 inches long with gray feathers, white wing patches, and a long tail. Mockingbirds eat insects, berries, seeds, and small fruits, changing their diet with the seasons. They live across North America in neighborhoods, parks, forests, and open grassy areas where shrubs and trees provide shelter. Mockingbirds are unique in that they can imitate the songs and sounds of many other birds and animals,.
- Hummingbird - Hummingbirds are small, weighing just 2 to 20 grams, with long, narrow bills and small wings. Males are generally characterized by their colorful gorget, the reflective feathers on the throat and upper chest. Hummingbirds can flap their wings up to 70 times per second, creating the namesake humming sound. They are the only birds that can fly backward, and they can also hover in place.
- Wind Turbine - A wind turbine harnesses the power of wind through its blades, converting wind energy into mechanical energy. Windmills, in general, have been used since 2000 B.C. The first modern wind turbine was built in Vermont in the 1940s. Wind is Ameria's largest source of renewable energy, providing 10.1% of the country's energy and growing.

Themes to Explore: Eco Garden

- Types of Plants
- Insects and Pollination
- Recycling
- Germination
- Food Origin
- Plant Life Cycle
- Composting
- Gardening Tools
- Healthy Eating
- Weather and Seasons
- Solar Energy

Mounted Artifacts

- Wheelbarrow Sensory Bin - Wheelbarrows are single-wheeled transport tools, used to carry small loads by hand. Their design helps distribute the weight between the wheel and the operator, making heavy loads easier to move.
- Garden Shed - A garden shed is a small outdoor building used to store gardening tools, supplies, and equipment. Gardeners may keep items like shovels, watering cans, gloves, seeds, pots, and soil inside to keep them organized and protected from weather. In the classroom, a "shed" can be a place for quiet activities like reading and emergent writing.
- Flower Shop - A flower shop sells fresh-cut flowers, plants, bouquets, and floral arrangements for occasions like birthdays, weddings, and holidays. Many flower shops receive large shipments of blooms every week from local greenhouses as well as international growers in countries such as the Netherlands, Colombia, and Ecuador, depending on the season and climate. The global floral industry is time sensitive. Many flowers are cut, shipped, and sold within just a few days to maintain their color, fragrance, and quality.

Mounted Artifacts

- Chicken Coop - A chicken coop is a small structure where chickens are kept to protect them from predators and inclement weather. It provides a safe space for hens to lay eggs and roost at night. Chicken coops are commonly made from wood, wire mesh, and metal roofing, with features like nesting boxes, perches, and ventilation for airflow.
- Fern Foliage (Ceiling Graphic) - A fern is a non-flowering plant that reproduces using spores instead of seeds and typically has feathery, divided leaves called fronds. You will most commonly find ferns in damp, shady environments such as woodlands, forest floors, and riverbanks where moisture levels are high. They thrive in cool, sheltered places because they rely on water for reproduction and are easily dried out in direct sunlight.

List of Hansa Animals

- Chickens

To Find Out More: Eco Garden

- USDA National Agricultural Library
- American Farm Bureau
- U.S. Department of Agriculture