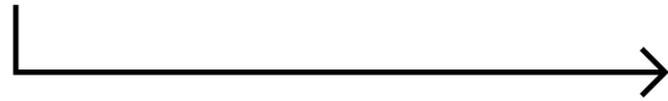


ALL GROWTH



גן המדע
ל"ש קולר
Clbre Garden
of Science
حديقة العلوم
على اسم كلور

OVERVIEW



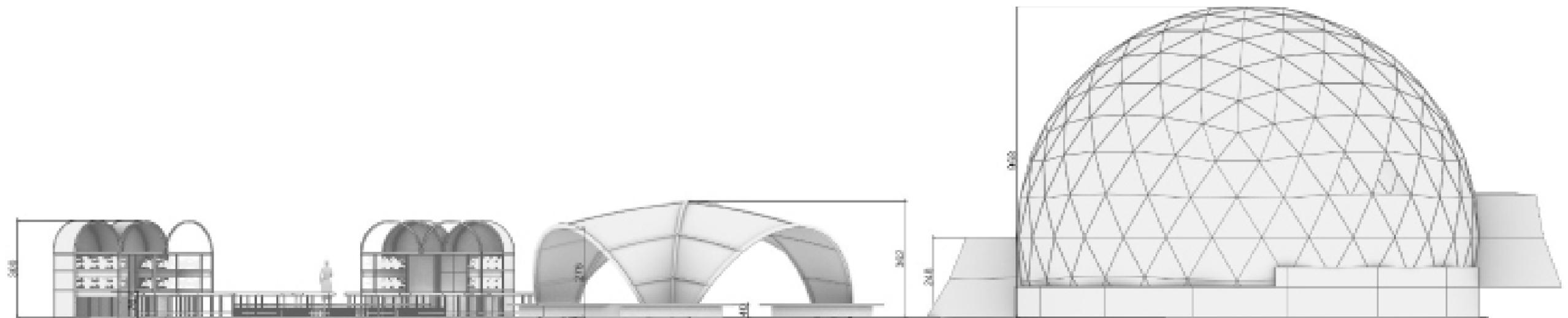
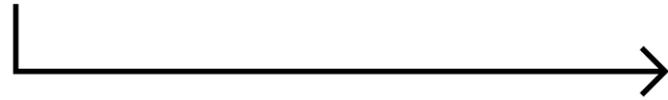
The Botanic and agriculture gallery emphasizes the essential and primal connection between men and soil. The plant kingdom is the most significant producer (at the bottom of the energy pyramid) that nourishes all living organisms on earth through oxygen emission and carbon dioxide fixation processes.

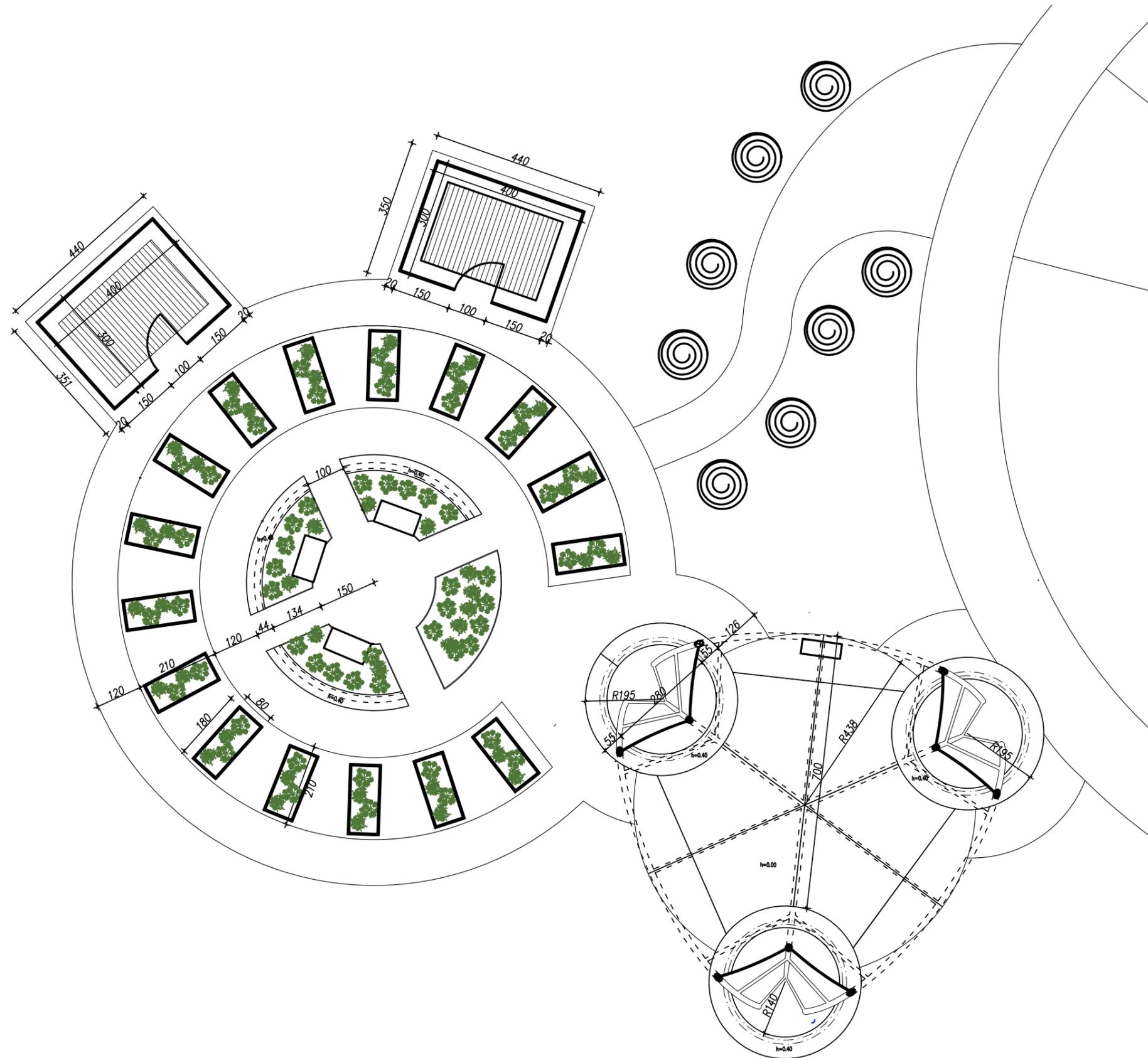
This gallery focuses on agrotech vs. traditional agriculture, methods for measuring and understanding plants' needs, adaptation to environmental changes under different conditions, the effect of climate change on plants, plant development, pollination and pollinators, and more.

The gallery will incorporate raised beds (ground and elevated levels), greenhouse, hydroponics growth systems, new technologies, and a weather station.



TECHNICAL DRAWINGS





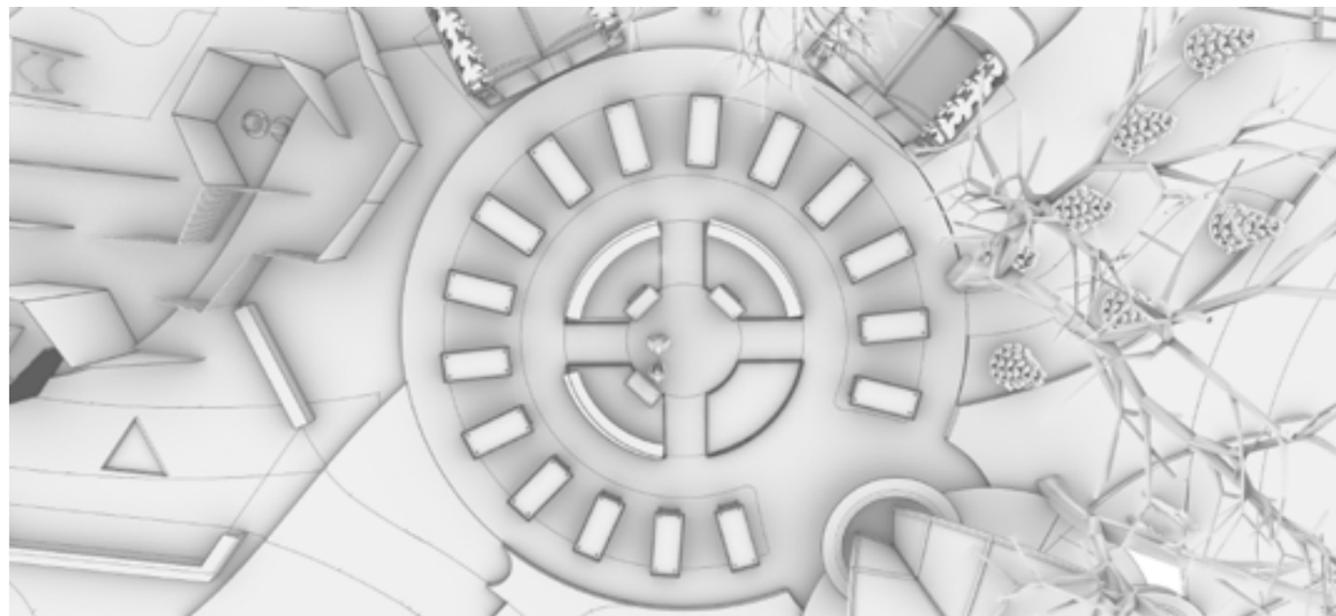
Gallery Top View



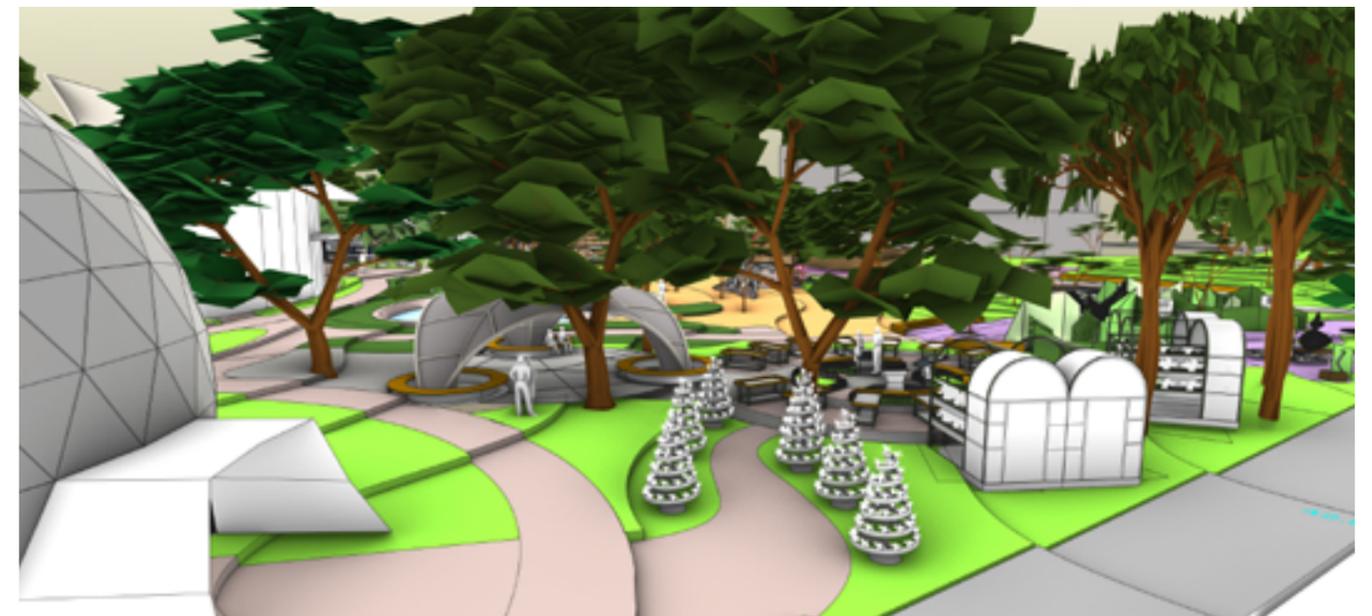
Complex View 02



Complex View 01



Complex View 04



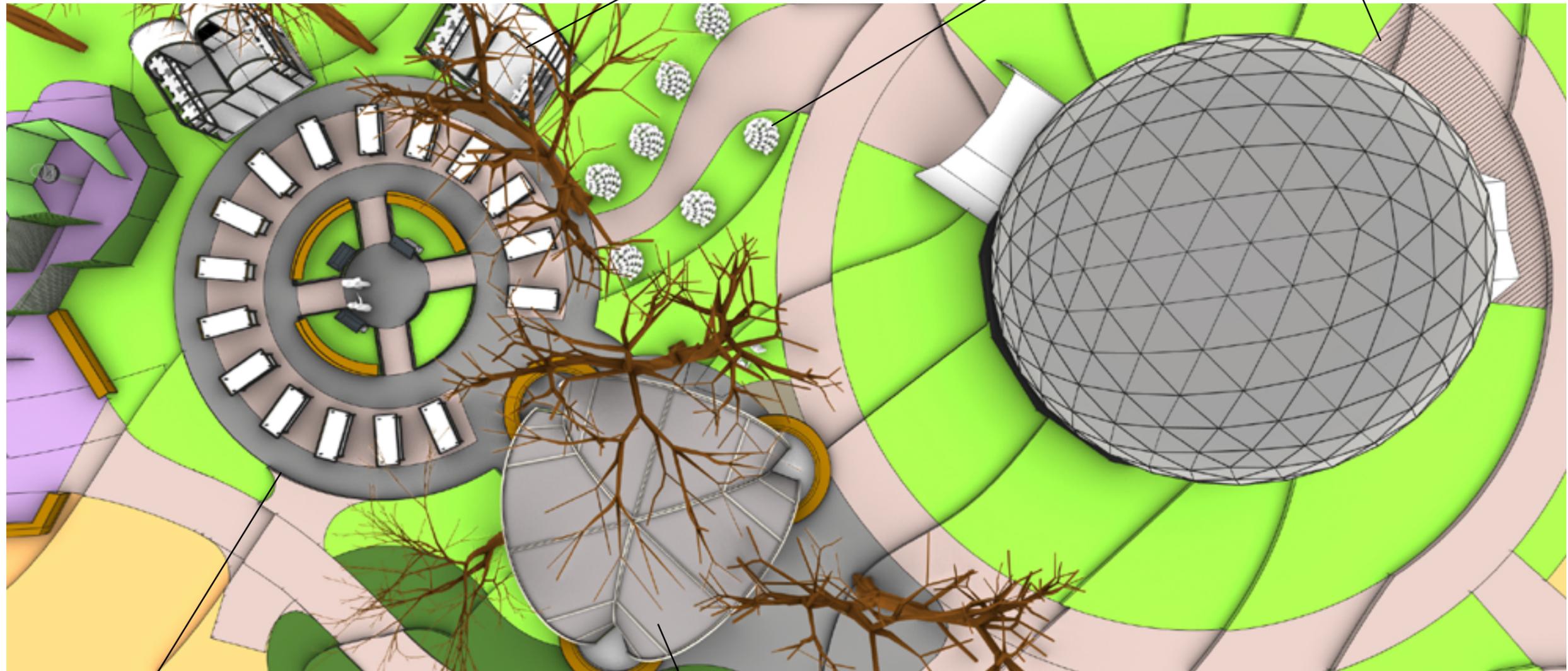
Complex View 03

EXHIBITS

Greenhouse structures

Vertical Hydroponics system

Icosphere



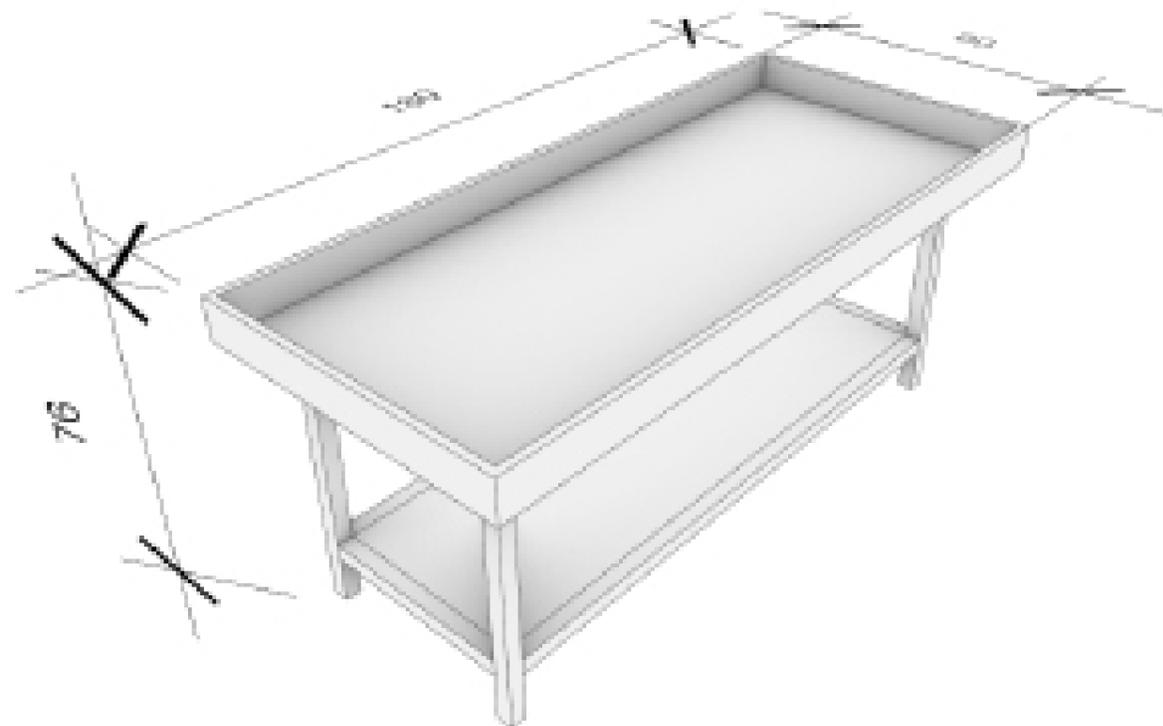
Gardening beds

Outdoor Classroom

Gardening beds

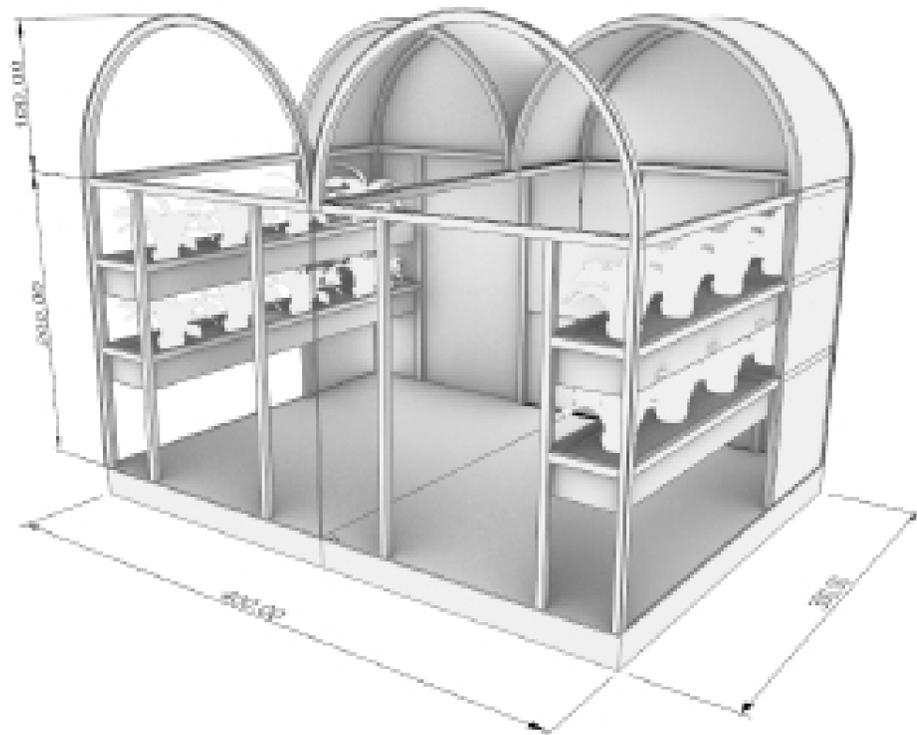
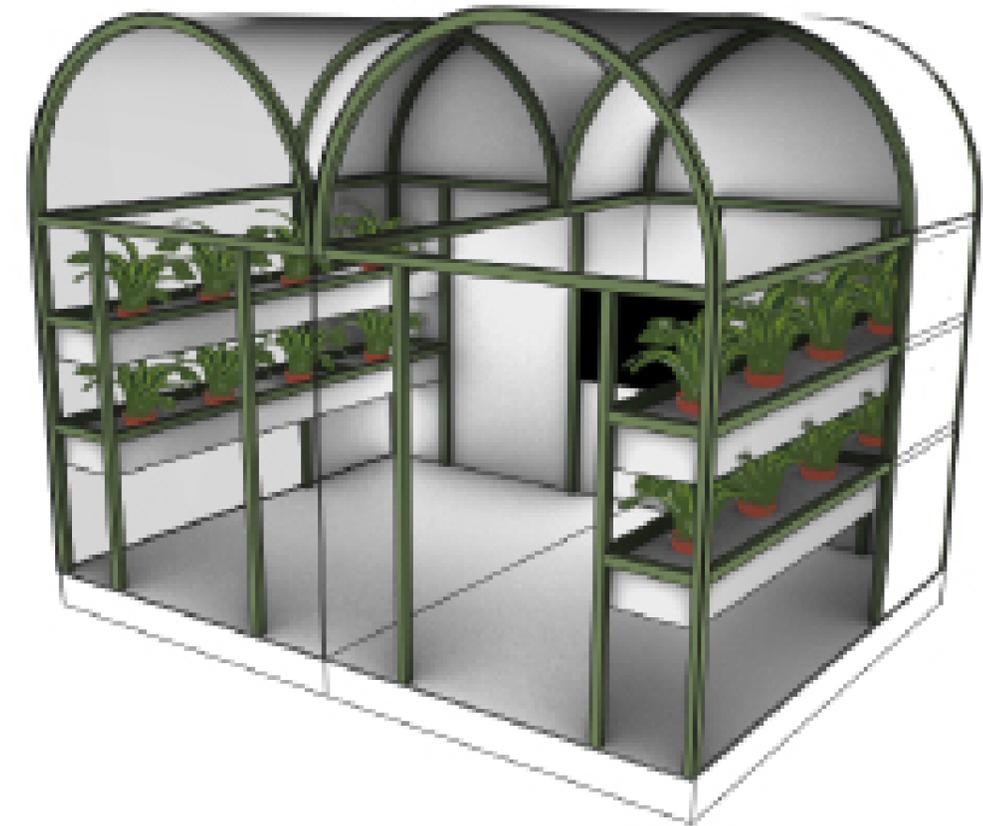
→ The gardening exhibits are planned as raised beds to provide better control over the quality of the soil and on plant growth. We plan different seasonal crops in different types of gardening configurations.

- In-Ground beds to demonstrate major interesting phenomena such as plant different pigments, cucurbits, symbiotic plants, and more.
- Elevated raised beds that will be used as a showcase of some of the plant research which is done at the weizmann institute of science and as a platform for students inquiries.



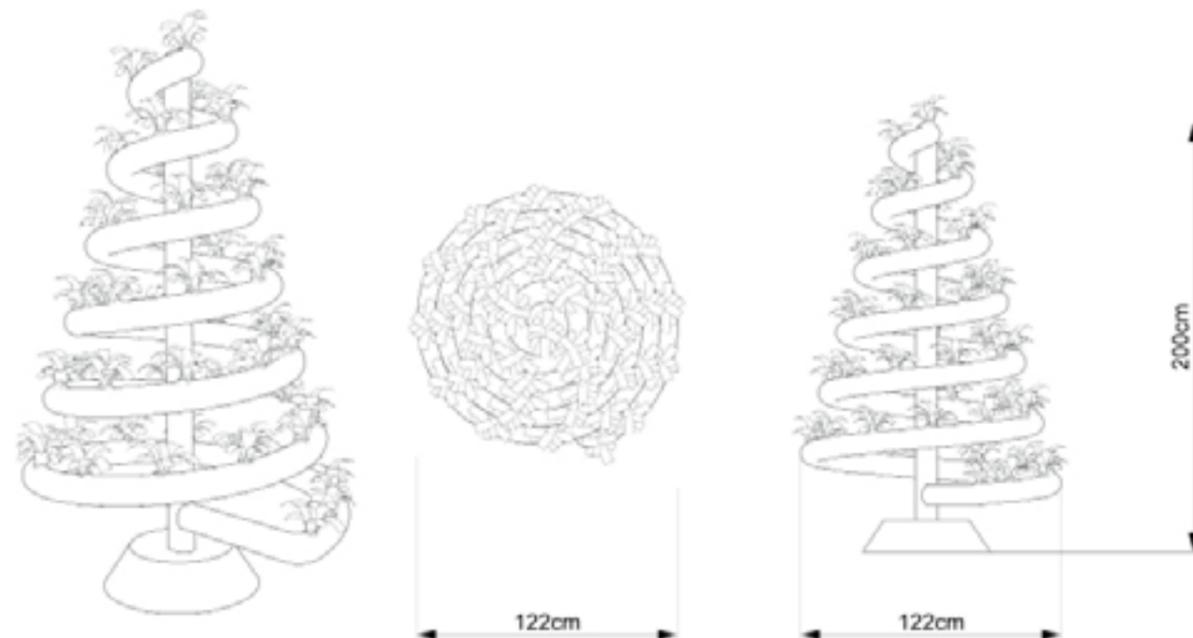
Greenhouse structures

- Greenhouse structure that include a climate control system, allowing the staff to lead monitored and supervised experiments under controlled conditions.



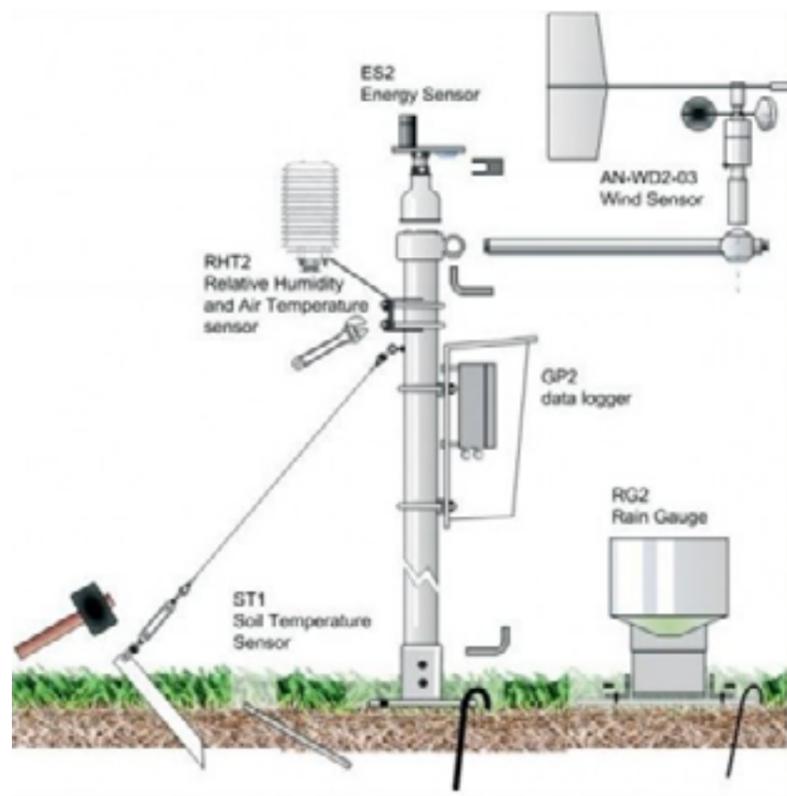
Vertical Hydroponics system

→ Vertical hydroponics allows high-density yield per unit area, suitable for small sunny places, allowing a year-round production and monitored growth media and conditions, and can often provide more than 90 percent efficiency in water use.



Weather station

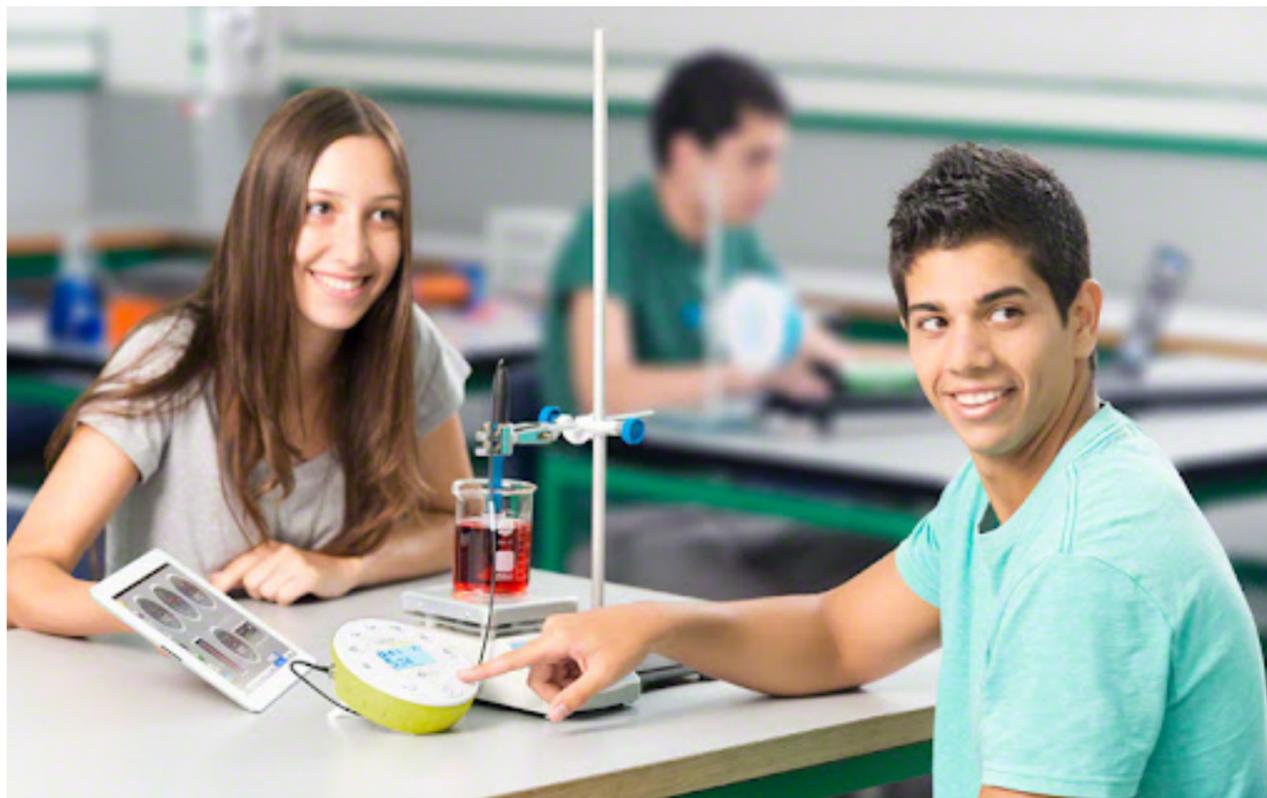
→ A weather station to enable measurement such as: sunlight intensity, wind speed and direction, temperature, humidity, and precipitation gauge.



Portable Biotic and abiotic sensors

→ Portable Biotic and abiotic sensors for accessible data collection in students' inquiry and fieldwork, and for the general public: Data collection by the sensors will be conducted within the plant, soil, air (outdoors and inside the greenhouse), and in the ecological pond. The sensors will be portable or fixed, and the data will be accumulated and communicated out of the gardens' area.

The Sensors will measure: Air Pressure, Temperature, Light, pH, Relative Humidity, Dissolved Oxygen, Sound Level, Turbidity, UV light, and more.



Terrarium

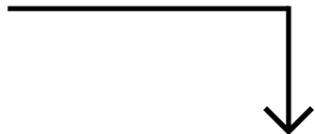
↳ Terrarium - A self-sustaining miniature ecosystem, housed inside glass containers, which enable the interchange of a flux of light energy, having their mini-climate.

- One closed system terrarium will be used as a beautiful, interesting and creative way to present a microcosm of ecosystems and plants that demonstrates essential cycles in nature, such as the cycle of water, CO₂/oxygen, organic matter periodical processes, and more.

- Four closed/open system terrariums will be used for hands-on demonstrations, experiments, and activities, such as climate measurements with portable sensors, dirt samples, leaves, and roots will be textured in the labs.



PRECISION AGRICULTURE (PA) EXHIBITS



Precision agriculture (PA) techniques and systems will be used to examine and experience the latest developments in the field of agrotech, demonstrating its importance as cutting edge technology reconnecting men and soil. The systems will be selected from the following items according to the agreed budget.



