



GROUT
MUSEUM
DISTRICT

Touch It. See It. Feel It.

PLANT GENOMICS

DNA DINER EXHIBIT



02 EXHIBIT



GENOMICS PUZZLE



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PLANT GENOMICS

PLANT GENOMICS EXHIBIT:

Discover the world of plant genomics.

An exciting scientific expedition awaits investigators of all ages!

Plant Genomics examines Earth's most crucial living creatures -plants- and investigates the important contribution genomics researchers are making to agriculture, human health, and the environment.

LEARNING OBJECTIVES:

- Understand that plant genomics is important for the environment, agriculture, and human health.
- Are able to provide a basic definition of plant genomics.
- Understand that plants provide us with food and oxygen.
- Understand that the genetic differences among plants allow them to survive a variety of environments.
- Understand the concepts that DNA are instructions.
- Understand that the genome is the sum of all an organism's DNA instructions and have a sense of the scale of DNA.

TARGET AUDIENCE:

6th-12th grades and their families.

PLANT GENOMICS includes several stations. Each one focuses on a particular concept and incorporates interactive elements.

O2: Explore how plants create oxygen and nutrient all other life depends on, and see why it's a good thing we can find plants almost everywhere on the planet. Discover how genomics research can help us solve the environmental puzzle we face.

THE DNA DINER: You want DNA with that? The entire set of DNA instructions, or genome, contains thousands of genes that contain thousands of DNA bases. If you could stretch out the DNA strand in a single human cell, it would be about 6 feet long. How do you like your protein, hon? Place your genic order and learn how proteins are made. Cells need proteins to carry out important functions.

ASSEMBLE THE PUZZLE: Put together the research puzzle by learning more about important fields of study. Visitors learn about various "-omics" that are part of current research into genomics and DNA.

Each station works as either a stand-alone exhibit, or together as a multi-station exhibit telling a many faceted story.

SPECIFICATIONS:

O2: **Construction Materials:** MDF bendable plywood, laminate
Dimensions: height=90 inches, width=150 inches, depth=64 Inches
Electrical Components: push-button controlled interactive, Flat screen TV, digital video player

DNA DINER: **Construction Materials:** MDF, laminate
Dimensions: height=93 inches, width=96 inches, depth=60 inches
Electrical Components: flat screen TV, digital video player, interactive digital audio player

ASSEMBLE THE PUZZLE: **Construction Materials:** MDF, bendable plywood, pre-formed geometric shapes
Dimensions: height= 102 inches, width= 250 inches, depth=10 inches
Electrical Components: two flat screen TVs, digital video player. Interactive digital player

The total area of the exhibit is 600 square feet.