Building a strong foundation with community.

Motto

DREAM EXPLORE CREATE EMPOWER
Our mission is to build a strong foundation for students to become change agents. We want to advance the right of every person to live in a socially, economically and environmentally healthy community.
Community Engagement Hub (Public Space)

Unique Interactive Learning Space

Multipurpose Education Center

Mobile Farmer’s Market & Healthy Cafe

Sustainable

Urban Farming
ENGINEERING DESIGN PROCESS

DEFINE THE PROBLEM
EXPLORED IDEAS
APPLY A SOLUTION
LOOK BACK AND LEARN
## Problems & Solutions

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LOCATION

- An ALL LOCAL PRODUCER ONLY market
- Is passionate about local food and sustainability of the Durham Community
- Durham's Farmers Market is located in Durham Central Park
- Food Trucks and Art Market
LOCATION
STEEL Academy
Location Video

https://youtu.be/b6UYWT9x0gw
HOW DO WE LEARN
Focus on critical thinking, creativity and innovation

- Real life experience
- Small class sizes
- Community engagement
- Community service
- Collaborative Groups
SMALL CLASS SIZES

- No more than 12 students per class
- Learning Pods
- Research proven: Higher Achievement
- Individualized Attention
- Teachers have more opportunities to observe and assess
- Classes become a community
- Teachers can differentiate instruction
- Easier to collaborate
- Teachers can build better relationships with students and parents
CRITICAL THINKING & INNOVATION

- Project based learning
- Collaborative Groups and think tanks
- In Laboratories researching and coming up with new technology and innovative ways to help our community
- Graded on our creativity and innovation not by taking a test.
 ENTREPRENEURSHIP

 №1
 Create Jobs & Wealth in our community

 №2
 Innovation & Social Change
TECHNOLOGY

- Innovative Technology for Farming
- Digital Media Center
- Tablets
- Laptops
- Design Lab: 3D Printing
- Digital Art
- Virtual Reality Labs
ECOLOGY

- The study of living things, their environment, and the relation between the two.

- Environmental Conservation

- Energy Conservation

- Limited Resources

- Eco Friendliness
DUAL LANGUAGE

- To unify staff and students in creating a shared community
  (NC ranked 11 in the country for hispanic population)
- To acquire a second language
- To have a greater capacity for listening
- To think more creatively and analytically
- To develop better communication skills
- To problem solving
- To have a greater awareness of self and others
- To gain insights into other cultures
COMMUNITY ENGAGEMENT
PUBLIC SPACE

- Open and accessible to the community
- Community Events
- Farmers Markets
- Food Truck Rodeos
- Sense of pride and belonging in the community

“True Community is based upon equality, mutuality, and reciprocity. It affirms the richness of individual diversity as well as the common human ties that bind us together.”
FARMERS MARKETS

- Every Saturday
- Provides healthy fresh food to our community
- Run by students and local community farmers and food trucks
- Affordable
- Durham Farmers market participates in the SNAP program which provides access to healthy food for families in need.
OPEN CAMPUS

- Meeting Spaces
- Community Dinners and Events
- Access to our Digital Media Center & Labs
- Access to Crops and Cafe 7 days a week
- Community Partnerships
CLASSES

- Student led classes
- Cooking
- Healthy Eating
- Community Gardens
- Sustainable & Energy Efficient
MOBILE CAFE & GARDEN

Brings healthy fresh food and crops into the community
SUSTAINABILITY
SUSTAINABLE AND ENERGY EFFICIENT

- Rainwater Harvesting
- High Energy Photons
- Rooftop Gardens
- Hydro Power
- Shipping Containers
- Wind Turbines
- Ecosystem & Biodiversity
• Cutting edge of agriculture
• 40-foot shipping container farm can grow 5 acres of food with 97% less water
• Access to local produce means it's fresh
• Mobile to bring food into our communities
Hydroponics are plants or crops that are grown without soil.

We use Hydroponics because we don’t have enough space to start a farm.

The method of Hydroponics is the fastest growing sector in agriculture.

You can also plant up to 4 times as many crops in the same space.
BEE HIVES

- Bees and other insects help pollinate flowers.
- Used for non-process honey
- They pollinate almost one third of everything you eat.
- Fresh products
- Most plants need the service of the pollinators
SHIPPING CONTAINER FOOD TRUCKS

- Overhead costs is less
- It's A Great Way To Break Into The Industry And Learn.
- You Can Tap Into Many Streams Of Income.
- Mobile way to bring crops and healthy food into our community.
- Shipping containers are a way to reuse and reduce waste
DESIGNING OUR SCHOOL
Inspiration
Inspiration

Rustic Modern
● One of the strongest materials on Earth.
● Shipping containers are made from weatherproof steel.
● Would give our school a strong foundation
Water

- Restorative, Calming and Balancing
- The presence of water is vital to our bodies, our lives, and our entire well-being
- Humans love to see, hear, smell, and feel water
- Creates a relaxing environment where people enjoy being
PLANTS

- NATURAL BEAUTIFUL AESTHETIC
- PLANTS REDUCE STRESS
- CLEAN THE AIR
- REDUCE NOISE LEVELS
- BIOPHILIA
- SPIDER PLANT, LEMON BALM, PHILODENDRON, PEACE LILY, GOLDEN POThOS
SHIPPING CONTAINERS

- Cost Efficient
- Eco Friendly
- Fast to Build
- Building can be done off site
- Sleek Modern Design
OUR DESIGN
Steel Foundation

- Cost Efficient
- Eco Friendly
- Fast to Build
- Building can be done off-site
- Sleek Modern Design
COMMUNITY SPACE
LEARNING PODS
LOOKING BACK
The Team

Mackenzie Giotinno  
Architect & Designer

Irene Tamba  
Engineer & Designer

Seth Allen  
Research & Agriculture

Mikal Ali  
Project Manager
DREAM EXPLORE CREATE EMPOWER
QUESTIONS?