MALA will empower their students through culturally relevant teaching. Learning will be extended outside of the classroom and into the community. Students will make decisions on important social issues and take actions to help solve them. Our school will be a place where all students want to be and learn.
Community, Equity & Cultural Empowerment

Comunidad, Equidad y Empoderamiento Cultural
<table>
<thead>
<tr>
<th>WE TALKED TO:</th>
<th>PROBLEMS:</th>
<th>Solutions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>Inequitable Schools</td>
<td>Culturally Relevant Teaching</td>
</tr>
<tr>
<td>Community Members</td>
<td>Students are not engaged</td>
<td>Cultural Center</td>
</tr>
<tr>
<td>Students</td>
<td>Division in our community</td>
<td>Community Engagement &amp; Education</td>
</tr>
<tr>
<td></td>
<td>Not having access to Healthy sources of nutrition</td>
<td>Healthy Meals, Urban Gardens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bee Hives</td>
</tr>
</tbody>
</table>
D.E.A.L
ENGINEERING DESIGN PROCESS

DEFINE THE PROBLEMS
What is the problem you are trying to solve?

EXPLORE IDEAS
Brainstorm, Research & Sketch
Be Creative & come up with new ideas.

APPLY A SOLUTION
Model it, Build it

LOOK BACK & LEARN
Look back, learn and redesign if necessary
LOCATION
ENO RIVER PARK

The Eno is notable for its beauty and water quality.

It has been preserved throughout the years.

It has a long history of being a place where people have lived and worked.
HISTORY OF THE ENO

Named after the Eno People.

Mills were later built by Europeans.

The river was used as a natural resource to power the mills.
- Near trails
- Historic Sites
- Restrooms
- Picnic Area
- Boat Access
- Park Office
- Foot Bridge
- Parking/Street Access
- Camping Sites
PRESERVING THE LAND IS OUR NUMBER ONE CONCERN WHEN BUILDING AT THIS LOCATION

BUILD & POWER SCHOOL WITH NATURAL RESOURCES

WE WILL THINK ABOUT HOW THE PLANTS, ANIMALS AND WATER WILL BE AFFECTED BY US BEING THERE
MALA
Multicultural Advanced Learning Academy
Eno River - Durham, North Carolina
“I am, because you are”

Oneness, Humanity, Compassion
UBUNTU CULTURAL CENTER

- Art Exhibits
- Theater Events
- Community & Family Events
- Performances
- Focus of Black & Indigenous Cultures
CLASSROOMS
BOLD COLORS & PRINTS

Indigenous, Latin and African prints
Library
Global Summit Café
We will grow most of the food our students eat in the cafe.

- Produce - plantains, limes, corn, beans, lentils, greens & peppers
- Herbs - Cilantro, garlic, cumin, ginger, thyme, cinnamon, and peppermint
FOOD

- Community is welcome in our Cafe
- Partnerships with local food trucks & restaurants
- Selling our produce & bee products at Durham Farmers Market
AGRICULTURE
URBAN FARMING

- Hydroponics
- Plants grow faster
- Equal Nutritional Value
- Provides the plants with its exact needs
- Saves water
- Can grow foods not typically grown in our region
FOOD CHAMBERS
• Hydroponics
• Plants grow faster
• Grown vegetables will be just as nutritious if grown normally
• Provides the plants with its exact needs
• Saves water
• Can grow foods not typically grown in our region
Students will study:

- Bee pests
- Different stages of brood (babies)
- Products of the hive
- Create Innovative ways to make and use bee products
● We have 4 bee hives
● Produce honey
● Collect pollen
● Produce propolis (an ingredient produced by bees to solidify their hives, also has medicinal qualities)
● Produce wax
Students will Study:

- Innovative ways to grow organic food
- Botany
- Ecosystems
- Farming techniques
- Ways to help the community

A Space to create innovative technology
A place to explore & work collaboratively
TREE PODS
- Solar Panels
- Green Roof
- 360 Degree View
- Balcony
- Elevators
- African Architecture
- University Partnerships
UNIVERSITY PARTNERSHIPS

- Students are able to use University resources
- Cultural Centers
- Library
- Funding
- Mentors
Makerspace
Place for creative designs and innovations

Independent Learning Center
A multipurpose workspace for students taking classes beyond the normal curriculum

Meditation Lounge
Comfortable, quiet area for meditation, yoga, self-reflection, and relaxation
Duke Meditation Lounge
SUSTAINABILITY
- Has the least negative impact on the environment
- Does not produce greenhouse gasses
- Does not pollute the water
- Reduce energy bill
- As long as there is sunshine you will have electricity
- Circular Solar Panel Designs
• The river is used to power our school
• It is fueled by water so it is totally clean
• Energy generated through Hydro Power is dependent on the water cycle and not fossil fuel which is affordable and more reliable
• Renewable
• This will not produce any greenhouse gasses
• Affordable
• Renewable
• Efficient
• Useful for watering plants & Flushing toilets
• Great for the plants
• Reduced water Bill
TECHNOLOGY OF THE FUTURE
INNOVATIVE TECHNOLOGY

- Holograms
- Augmented Reality
- Virtual Reality
- Facial Recognition
- Spin Class - Energy Source
- School Wide Virtual Assistance
INSPIRATION
CULTURAL INSPIRATION

- Top View of MALA
- Inspired by African Prints
- Geometric Shapes
- Concentric Circles & Curves
CULTURAL INSPIRATION

- African & Latin American Architecture
- Natural Materials
- Bold Colors
- Tall Buildings
- Circles & Curves
THE RIVER

- 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
- Natural source of power for our school
HOW WILL WE BUILD OUR SCHOOL?
3D PRINTING

• 3D Printing is the future of Architecture & Design
• Strength & Durability
• Speed – 3-6 Months v. 1 Day
• Costs Less
• Minimal consumption of materials & labor
• Endless Possibilities – Experimenting with different shapes
• Uses more sustainable materials than construction
3D PRINTING

- We would use wood & glass to 3D Print our school
- Sustainable
- Will seamlessly integrate into the natural reserve by the river
- Reclaimed Wood, Plant Based Materials & Polymers
- Can be stained and sanded
OUR PROCESS

5 Stages

1ST STAGE
- Interviews
- Brainstorming
- Research
- Fieldtrips
- Sketching

2ND STAGE
- 3D Modeling

3RD STAGE
- Revising Ideas with the other school.

4TH STAGE
- Building the Model

FINAL STAGE
- Presentation