Highlights from the Lighthouse Solar Energy Camp

2021 // MAY 29 // ISSUE NUMBER 1

Halifax County Schools

# WEEK ONE: SOLAR ENERGY

## LIGHTHOUSE SOLAR CAMP SCHOLARS EARN WHILE YOU LEARN


**Earn While You Learn** --- Halifax County Schools, North Carolina State Energy Office and NC A&T State University join forces with Halifax Community College, the Governor's Office and the Center for Energy Education to produce a solar camp where juniors and seniors will receive a 96-hour training program to expand their knowledge of photovoltaic and solar energy. After the students finish the 96-hour training program, they are skilled and ready for a hands-on paid internship with a local solar company with a rate of pay of $15 per hour for 80 hours. Students will be provided safety equipment, to include but not limited to: uniform shirts, work boots, reflective vests, hardhats, safety glasses, gloves, and personalized protective equipment kits, as well as all materials need for coursework.



For questions or comments, contact Mrs. Rhonda High, rhigh196@halifaxcc.edu or Dr. Tyrana Battle, battlet@halifax.k12.nc.us

2021 / / MAY 29 / / ISSUE NUMBER 1

# LIGHTHOUSE SOLAR CAMP

## MEET THE LIGHTHOUSE SOLAR CAMP SCHOLARS


Zaniya Battle


Sa'Maria Barnes


Juleyon Brinkley

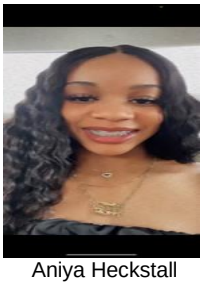

Trazaya Bullock


Maria Castanon

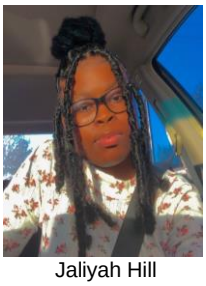

Zas'Kya Caudle


Raven Evans

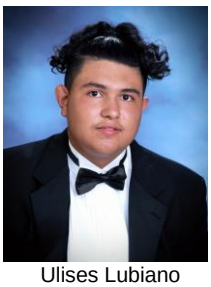

Ty'Teana Harris


Aniya Heckstall


D'Montae Hedgepeth


Jaliyah Hill

Kearston Higgs


Ulises Lubiano

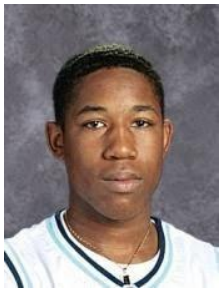

Qunicy Mills


Aniya Nicholson


Marjavion Nicholson


Penelope O'Neal


Cameron Pearson


Dante' Solomon


Jayden Vinson

## A Special Thanks to Our Sponsors!!!

HALIFAX Community College

NCBCE

Halifax County Schools

DEQ

North Carolina Agricultural and Technical State University

center for ENERGY EDUCATION



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2021 / / MAY 29 / / ISSUE NUMBER 1

# LIGHTHOUSE SOLAR CAMP

**Lighthouse Solar Camp Students inspect the fuse box on the campus of Halifax Community College as part of their field experience.**


Halifax Community College President Dr. Michael Elam addresses the first inaugural class of the Lighthouse Solar Energy Camp. Twenty Halifax County Schools' students completed orientation and commenced camp on May 26, 2021 with a 96-hour training module taught by Halifax Community College faculty. Upon completion of their coursework, students will be skilled and ready for an 80-hour, hands-on paid experience at the Center for Energy Education with an emphasis on photovoltaic and solar energy.

## 1st Inaugural Lighthouse Solar Camp


**Did you know?** In 14.5 seconds, the sun gives us enough clean energy to power the world for the remainder of the day.

Mr. Thomas Mims, Photographer



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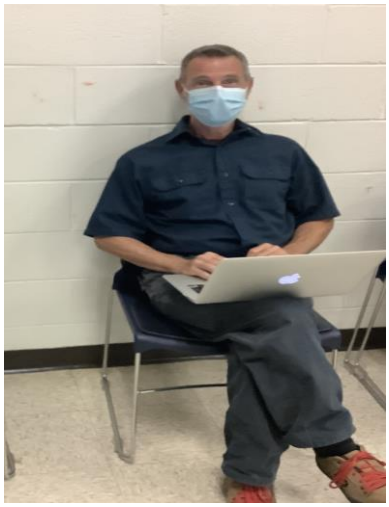
# LIGHTHOUSE SOLAR CAMP


Halifax County Schools' Superintendent Dr. Eric Cunningham encourages the inaugural class of the Lighthouse Solar Camp to "Strive for Five" as they "Chart A New Course" at Halifax Community College.

**Mrs. Rhonda High**
Halifax Community College
Lighthouse Solar Camp
Program Administrator


**Dr. Tyrana Battle**
Halifax County Schools
Assistant Superintendent
Solar Camp Program Liaison

## Meet the Instructor – Week One



**Mr. Jason Bone**
Halifax Community College

Halifax Community College Instructor Jason Bone teaches twenty Halifax County Schools' Lighthouse Solar Camp students about solar energy and photovoltaic systems.



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2021 / / MAY 29 / / ISSUE NUMBER 1

# LIGHTHOUSE SOLAR CAMP

# *IN THIS ISSUE – WEEK ONE*

**Introduction to Solar & Solar Fundamentals (30 hours):** The course covered the following topics:

- Solar Education
- Solar Photovoltaic Modules
- Racking and Mounting
- Electrical Connections
- Use of Small Tools
- Hands-On Installation
- Industry Visits

**Photovoltaic (PV) Energy**

**Definition: Photovoltaic** (**PV**) is the conversion of light into electricity directly from photons of sunlight.

| **Advantages** | **Disadvantages** |
|---|---|
| Solar energy available in most places | Variability of available sunlight |
| No fuel costs | High initial cost |
| No emissions | Energy storage |
| Easily scalable | Available of qualified installers |
| Low maintenance | Legal complexities |



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# LIGHTHOUSE SOLAR CAMP


## Question of the Day

**Solve:** If there are 10 PV modules that produce 30 volts and 7 amps at full (peak) sun, how much direct current (dc) energy (kWh) would one expect on average per day if the modules were installed in an area with 5 hours of peak sun per day?

**Procedure**:
30 volts X 7Amps = 210 watts
210 W X 10 modules = 2100 Watts
2100 Watts x 5 hours of peak sun per day = 10,500 Wh/day
10,500/1,000 = 10.5kWh/day

**Answer: 10.5 kWh/day**

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