

SHARE YOUR VOICE AND LEARN  
ABOUT MAKING MCPS MORE  
SUSTAINABLE

# MCPS SUSTAINABILITY SYMPOSIUM

Join Us On May 26th @ 11:15 am

Link To Register:

<https://forms.gle/Z3yU4VuchDWBov1A7>

# AGENDA

- Introductions:
  - Division of Sustainability & Compliance
  - Pre-k -12 Curriculum
- Highlights of Montgomery County Climate Action Plan
- Addressing Student Voice Comments from February 2021 Youth Climate Town Hall
- Update on MCPS Climate Change Actions
- Exciting initiatives in the near future
- Hear what is important to you!



# MONTGOMERY COUNTY CLIMATE ACTION PLAN

- Final version released in June 2021  
[https://www.montgomerycountymd.gov/green/climate/index.html?mc\\_cid=fede66ce58&mc\\_eid=22cf65fdc4](https://www.montgomerycountymd.gov/green/climate/index.html?mc_cid=fede66ce58&mc_eid=22cf65fdc4)
- Has a target of 80% reduction of greenhouse gases emissions (GHG), by 2027 and 100% reduction by 2035
- Over 20 proposed actions in Montgomery County Climate Action Plan (CAP) where MCPS has a lead or contributing role
- Youth Climate Town Hall held on February 11, 2021



# WE HEARD YOU!

## STUDENT VOICE COMMENTS:

- Take more urgent measures to meet climate change challenges
- Share ways students can become involved
- Learn more how climate change affects us
- Advance food waste composting
- Increase use of renewable energy
- Increase secondary school participation
- Reduce waste



# Greening our SCHOOLS



# MCPS's Current State

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2

MAEOE Green Centers

2013

United States Department of Education District Sustainability Award

37

Schools that are LEED certified

91

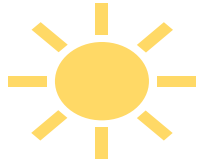
Schools that are certified MAEOE Maryland Green Schools

11

Schools that have received the United States Department of Education Green Ribbon Award

185

Sustainability-related trainings conducted annually



# 2021 MARYLAND GREEN SCHOOL RECOGNITIONS

Congratulations to the six schools recently certified!

- Sherwood High School (newly certified)
- Thomas S. Wootton High School (new certified)
- Benjamin Banneker Middle School (first recertification)
- Bradley Hills Elementary School (first recertification)
- Gaithersburg Elementary School (second recertification)
- Westland Middle School (Sustainable Green School Certification)



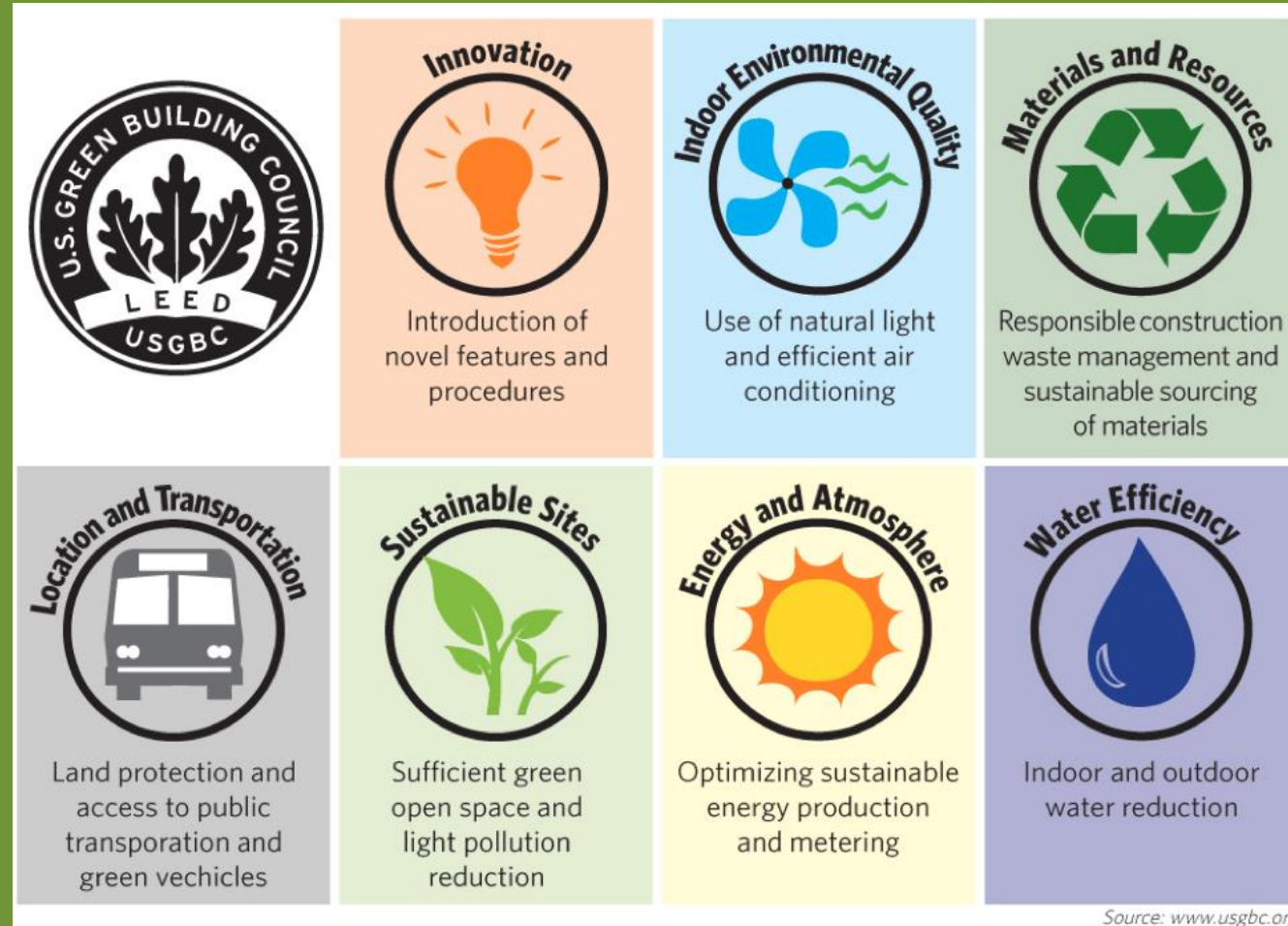
# GREEN SCHOOL CONSTRUCTION



## 37 LEED-Certified Schools

- 28 Gold Certified
- 7 Silver Certified
- 2 pending certification

## Future: 13 Green Globes-Certified Schools



Source: [www.usgbc.org](http://www.usgbc.org)



# Green ROOFS

A green roof, or a living roof, is a roof on building that is partially or completely covered with vegetation and a growing medium (soil), planted over a waterproof membrane.

Helps reduce urban heat load and capture rainwater.

- Green roofs on 38 schools
- Over 1.1 million square feet



Picture: William H. Farquhar Middle School

# BIO-RETENTION

Bioretention is the process in which contaminants and sediment are removed from stormwater runoff.

Stormwater is collected into the treatment area which consists of a grass buffer strip, sand bed, ponding area, organic layer or mulch layer, planting soil, and plants.

83 school sites:

- 54 elementary schools
- 18 middle schools
- 9 high schools
- 2 special schools/centers



Picture: Weller Road Elementary School

# SOLAR PHOTOVOLTAIC ENERGY

Photovoltaics is the conversion of light into electricity using semiconducting materials that exhibit the photovoltaic effect, a phenomenon studied in physics, photochemistry, and electrochemistry.

The photovoltaic effect is commercially utilized for electricity generation and as photosensors.

- 4.1 megawatts
- 2 elementary schools
- 8 middle schools
- 7 high schools
- 8 more schools under development



Picture: Lakelands Park Middle School

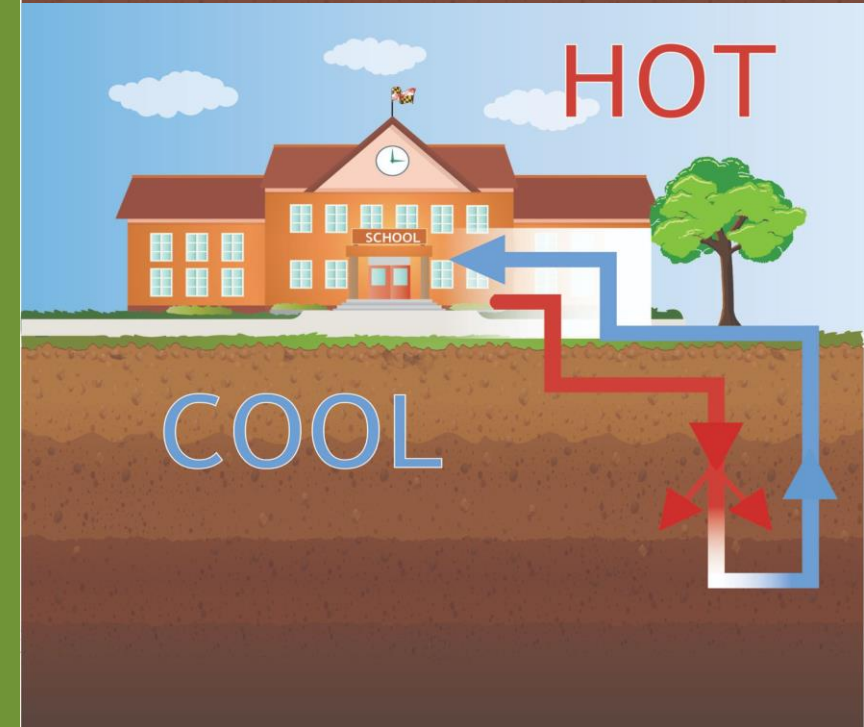
# GEOHERMAL SYSTEMS

Geothermal energy is heat within the earth.

The word geothermal comes from the Greek words geo (earth) and therme (heat).

Geothermal energy is a renewable energy source because heat is continuously produced inside the earth.

- 23 elementary schools
- 6 middle schools
- 3 high schools



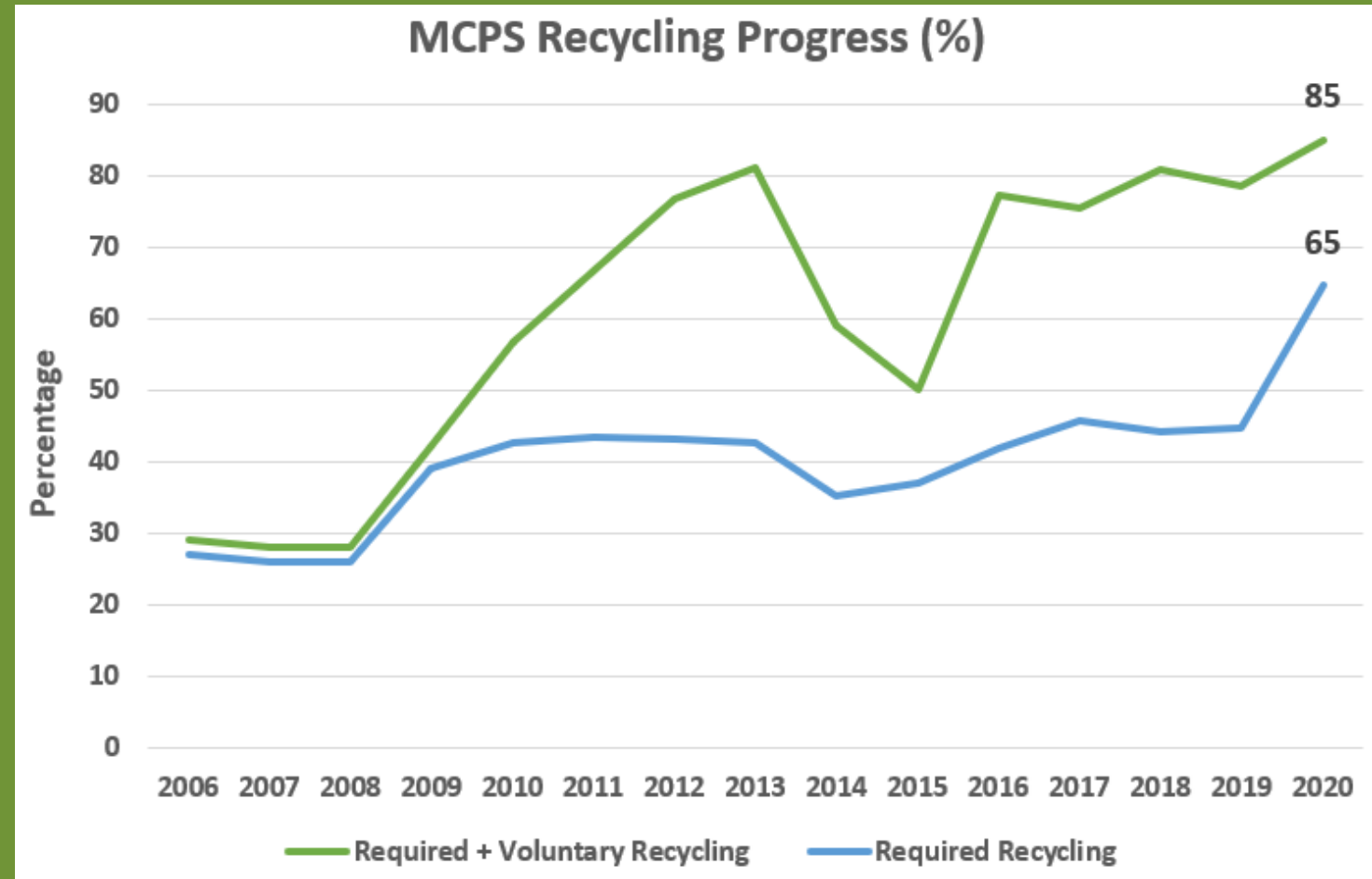
# MCPS RECYCLING PROGRESS

County Regulation requires the recycling of paper, cardboard, commingled items, yard waste, and scrap metal.

In 2019, MCPS recycled 1,521,192 pounds of these materials, equivalent to a GHG reduction of removing more than 80,000 cars from the road!

MCPS also recycles 20 other types of materials including construction material, automotive parts, electronics, printer cartridges, and many more!

MCPS reduces waste in the first place at the source and reuses material where possible!



\*The decrease in 2014-15 was largely due to the reduction in capital projects demolition as compared to other years

# POLYSTYRENE

No more polystyrene  
or expanded  
polystyrene food  
containers in MCPS!  
Food serving  
containers used in the  
cafeterias can all be  
recycled!



It's your world... Choose to conserve

School Energy and Recycling Team  
Department of Facilities Management  
45 W. Gude Drive #4000  
Rockville, MD 20850  
240-314-1090  
[www.greenschoolsfocus.org](http://www.greenschoolsfocus.org)



## Tips for recycling cardboard tray

- Students should tap cardboard trays to remove any food wrapping or left over food into the trash bin
- Clean trays or trays with minimal food residue can be recycled
- Stack the cardboard trays as you would normally stack the white polystyrene trays or place the cardboard tray into the blue paper recycling bin
- If the cardboard tray has a lot of food contamination, then it should be thrown away as trash
- After lunch, stacks of cardboard trays should be taken to the exterior paper/cardboard recycling dumpster

# SCHOOL-BASED SERT TEAMS

At all school levels, the SERT program is implemented by a cooperative team of students, teachers, parents, building service managers, and administrators.


- Every school has a SERT leader

## Common activities:

- Energy audits, recycling collection/ patrols, light monitors, lunch time helpers, stream cleaning, community events.
- Pollinator gardens, Waste Free Wednesdays, assemblies/guests speakers, Fridays for Future
- Support Maryland Green School applications



Join your SERT team! Make a change!



**TEACHING and  
LEARNING:  
CLIMATE CHANGE**





# K-12 ENVIRONMENTAL LITERACY

- Elevate climate change content where it already exists in the K-12 curriculum
- Identify curriculum areas where additional climate change content could be created and integrated, including environmental justice
- Increase the kinds and number of student opportunities for exposure to careers in the green industry and knowledge of the pathways to get there





# PROFESSIONAL LEARNING

- Provide professional learning for all staff on sustainability as an action to address climate change
- Work with teachers on the content and pedagogy involved in the climate change curriculum lessons they teach
- Increase the comfort level of educators to answer questions about climate change science



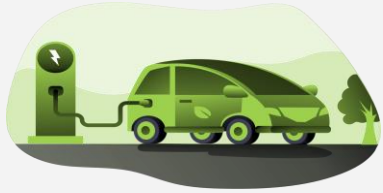


# OUTDOOR ENVIRONMENTAL LEARNING

- Continue to encourage MCPS schools to build and use school gardens for instruction, both perennial and edible
- Continue to advocate for garden coordinators - voluntary and/or paid - to assist schools with garden building and maintenance
- Support schools with creating and using outdoor learning spaces while integrating the use of outdoor spaces into curriculum



# COMING SOON...



## 2021

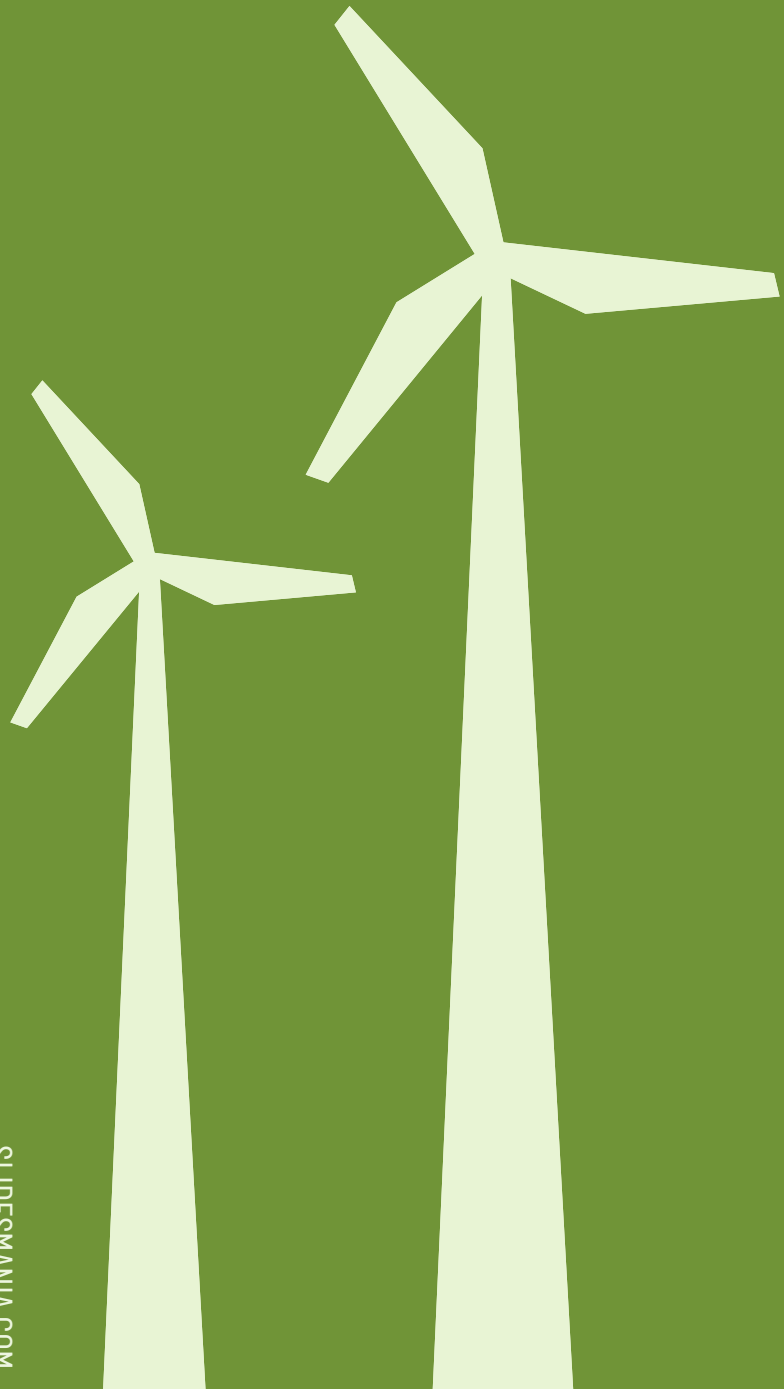
- 25 electric school buses.
- Pilot food waste composting
- Outdoor learning spaces “best practices”

## 2022-23

- Youth Climate Summit (Feb)
- 8 additional solar photovoltaic sites
- Pilot electric vehicle charging station

## UNDER DEVELOPMENT:

- First net zero school
- Increasing electric school buses to 326 over next four years
- Increase number of MD Green Schools
- Consideration of a climate change course
- Electric fleet vehicles
- Improved sustainability data sharing
- Transition from an Energy Conservation Policy to a Sustainability Policy
- More projects focused on reducing energy consumption



# BREAKOUT ROOMS

SHARE YOUR GREAT  
IDEAS!

THANK  
YOU!

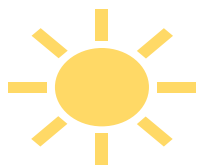


THANK YOU TO THE STUDENTS  
ON OUR PLANNING COMMITTEE  
& CO-FACILITATORS:

- POOLESVILLE HS,
- BLAIR HS,
- BETHESDA CHEVY CHASE HS

AND DANIEL REMER FROM  
INFORMATION TECHNOLOGY





# FOR MORE INFORMATION

Division of Sustainability & Compliance (DSC)

Email: [sustainability@mcpsmd.org](mailto:sustainability@mcpsmd.org)

Telephone: 240-740-3210

Website:

<https://www.montgomeryschoolsmd.org/departments/facilities/sustainability/index.aspx>

Pre-K-12 Curriculum

Email: [Laurie\\_C\\_Jenkins@mcpsmd.org](mailto:Laurie_C_Jenkins@mcpsmd.org)

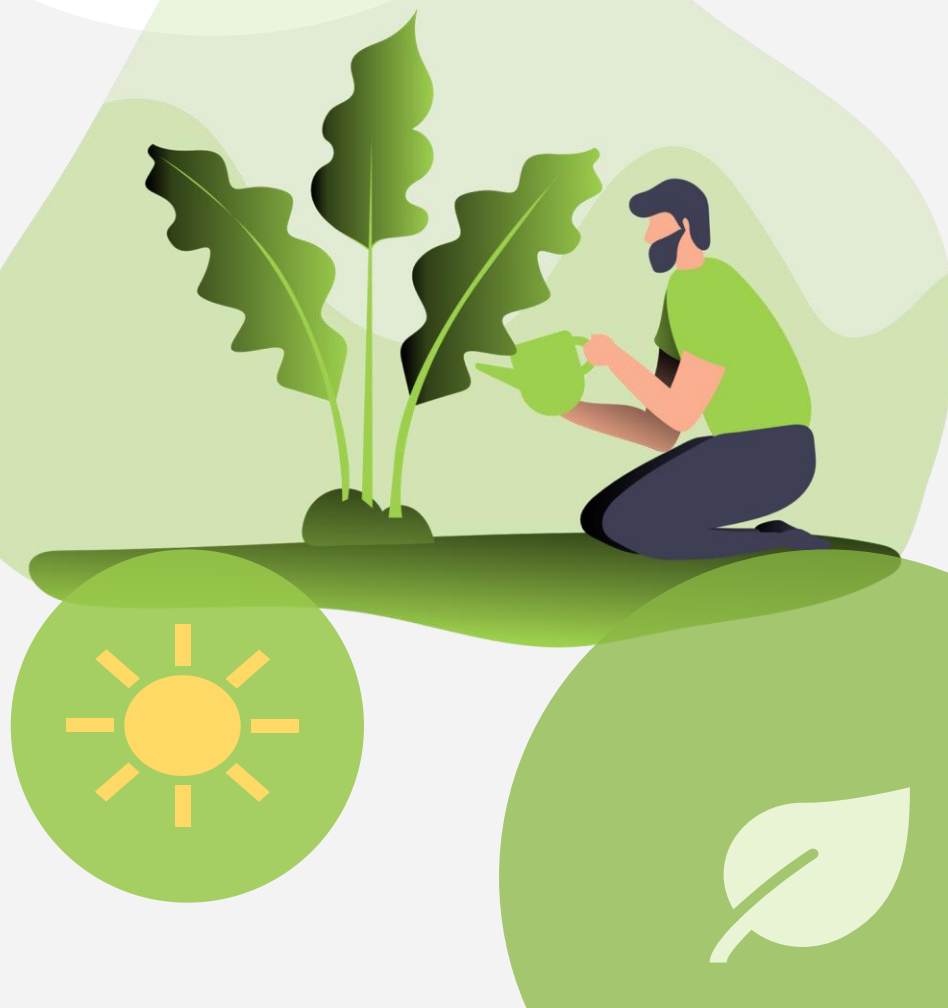
Email: [Dina\\_S\\_Link@mcpsmd.org](mailto:Dina_S_Link@mcpsmd.org)

Telephone 240-740-1404

Website:

<https://www2.montgomeryschoolsmd.org/schools/outdoored/>

<https://www.montgomeryschoolsmd.org/departments/instructionalprograms/>





# CLOSING POLL QUESTIONS





THANK  
YOU!

# GLOSSARY

1. **BIO-retention:** THE PROCESS IN WHICH CONTAMINANTS AND SEDIMENTATION ARE REMOVED FROM STORMWATER RUNOFF.
2. **DSC:** DIVISION OF SUSTAINABILITY & COMPLIANCE
3. **GEOTHERMAL SYSTEM:** A RENEWABLE ENERGY SOURCE BECAUSE HEAT IS CONTINUOUSLY PRODUCED INSIDE THE EARTH.
4. **GHG:** GREENHOUSE GAS
5. **GREEN ROOF:** A ROOF OF A BUILDING THAT IS PARTIALLY OR COMPLETELY COVERED WITH VEGETATION AND A GROWING MEDIUM, PLANTED OVER A WATERPROOFING MEMBRANE.
6. **LEED:** LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN
7. **MAEOE:** MARYLAND ASSOCIATION OF ENVIRONMENTAL AND OUTDOOR EDUCATORS
8. **MARYLAND GREEN SCHOOL:** NATIONALLY RECOGNIZED, THE MARYLAND GREEN SCHOOLS AWARD PROGRAM (MDGS) ALLOWS SCHOOLS AND THEIR COMMUNITIES TO EVALUATE THEIR EFFORTS IN ENVIRONMENTAL SUSTAINABILITY.
9. **MCPS:** MONTGOMERY COUNTY PUBLIC SCHOOLS
10. **POLYSTYRENE:** A SYNTHETIC AROMATIC HYDROCARBON POLYMER MADE FROM THE MONOMER KNOWN AS STYRENE.
11. **PRE-K-12:** PRE-KINDERGARTEN TO GRADE 12
12. **SERT:** SCHOOL ENERGY & RECYCLING TEAM
13. **SOLAR PHOTOVOLTAIC:** A PHOTOVOLTAIC SYSTEM EMPLOYS SOLAR MODULES, EACH COMPRISING A NUMBER OF SOLAR CELLS, WHICH GENERATE ELECTRICAL POWER.
14. **UNITED STATES DEPARTMENT OF EDUCATION GREEN RIBBON SCHOOL AWARD:** THE AIM OF U.S. DEPARTMENT OF EDUCATION GREEN RIBBON SCHOOLS (ED-GRS) IS TO INSPIRE SCHOOLS, DISTRICTS, AND INSTITUTIONS OF HIGHER EDUCATION (IHES) TO STRIVE FOR 21ST-CENTURY EXCELLENCE BY HIGHLIGHTING PROMISING SCHOOL SUSTAINABILITY PRACTICES AND RESOURCES THAT ALL CAN EMPLOY.

