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MASSACHUSETTS CLEAN TECHNOLOGY AWARDS

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Region V, Southeastern MA;
Climate Science:

Shamae Burrell, Newton
Country Day School of the
Sacred Heart

“Where the Wind Blows”

ABOUT ME:

Shamae Burrell is a seventh grader who came to Newton Country Day from the Charles H. Taylor School. A two-year Steppingstone Scholar, Shamae lives with her parents and a younger sister.

Shamae is passionate about meteorology and anything related to climate. She interviewed WBZ-TV meteorologist Mish Michaels for her science fair project. Michaels gave Shamae a tour of the weather studio and tips on pursuing a career in meteorology. An avid reader who also enjoys writing, Shamae is a member of the Middle School field hockey and lacrosse teams and sings in the chorus. In her free time, Shamae enjoys arts and crafts projects and designs engineering inventions. Her next planned endeavor is to build a wind turbine.

MY PROJECT:

Using an original wind recording device, I tested the direction the wind blew in late January over a period of 14 consecutive days, and compared that data to daily weather conditions that included wind speed, cloud cover, and temperature.

My wind recording device was built using a shoe box, a compass, a dowel, an empty thread spool, a pencil, wind recording cards, and the Beaufort Wind Scale. I discovered that as the cloud cover increased on a scale of 1 (full cloud cover) to 4 (clear), the cluster of plotted directions ranged from north to west. As the temperature increased, the wind direction was more southerly. The study of such conditions would help engineers place wind turbines in such a way as to maximize wind energy.