

## **Calvin Donaldson Environmental Science Academy: Journey to a LEED School Building**

As we embark upon the journey to a LEED (Leadership in Energy and Environmental Design) Certified School Building, we begin with the vision. What is it that we want to see and do with this building?

- ❖ We hope to create a school that is the first LEED certified Platinum-rated school building in Hamilton County.
- ❖ This building will serve as a model for future school buildings and renovations in Hamilton County.
- ❖ We will create a healthy learning environment for the children while inviting students, parents, teachers and the community to learn about the benefits of green school buildings.

We look at the building as an opportunity to bring exciting spaces to our school that will transform our campus into a hands-on environmental learning laboratory. To create a hands-on experience, we envision the following housed within the walls of the 11,000 square foot building:

- ❖ Science lab for grades K-2
- ❖ Science lab for grades 3-5
- ❖ 4-5 student ready-classrooms for intermediate grade levels
- ❖ Food lab for edible gardens project
- ❖ Administrative/Field Expedition Office

As a community of faculty and staff who carry the vision of our school each day we brainstormed answering the question, "What tools do you dream about having to support our environmental science curriculum?" Together we found many answers. The overall theme was that we hope that every environmental detail of the building will be accessible to our students through educational signage. Some of the exciting green building features that we hope to incorporate into the design are:

- ❖ Solar Panels
- ❖ Green Roof and Living walls
- ❖ 90% Day lighting
- ❖ Cross Ventilation
- ❖ Using materials that contain no VOC's (volatile organic chemicals)
- ❖ Rainwater Catchment and irrigation
- ❖ Energy Efficient HVAC system

- ❖ The building itself would become a hands-on environmental learning experience for the children
- ❖ Curriculum Based School Garden and Food Lab
- ❖ On-site waste Management: Composting and prominent recycling
- ❖ Water Conservation: e.g. Dual Flush toilets and auto shut off sinks

The importance of engaging and bringing together our greater community of students, parents, and neighbors to brainstorm and dream is essential to this process and something we look forward to doing.

Leadership in Energy and Environmental Design (LEED) is a process through which buildings are created and retrofitted to lead our world to become more sustainable. On becoming LEED certified, a building is recognized by the U.S. Green Building Council as a sustainable building. To become LEED certified there are six categories to be addressed:

- ❖ Sustainable Sites
- ❖ Water Efficiency
- ❖ Energy and Atmosphere
- ❖ Materials and Resources
- ❖ Indoor Environmental Quality
- ❖ Innovation in Design.

A team of experts and partners are gathered who work together using the categories as a guide to design a sustainable structure. Our hope is that a small team of 4<sup>th</sup> and 5<sup>th</sup> grade students would be part of that design team.

A LEED certified building is more than the spaces that are created by the walls. It is the way the building is built, the way it performs, the ways it impacts our environment, the way it interacts with the land, and the way it educates the students, teachers, parents, and community members that learn within its walls. Leadership in Energy and Environmental Design (LEED) is a process not a product, a journey not a destination. Like going on an expedition, we look forward to bringing all the partners together to make this journey.