



Team Energy

 **Audit**

Overview



- **QUESTIONS WE ASK:**
 - **WHAT IF...**
 - **WHAT IS THE PROBLEM?**
 - **WHAT CAUSED IT?**
 - **THE SOLUTION**
- **OUR MISSION**
- **WHY AN ENERGY AUDIT?**
- **STRATEGY AND IMPLEMENTATION**
- **EQUIPMENT**
- **WHY ALL THE FUSS**
 - **SAVINGS**
 - **IMAGINE**
 - **ENVIRONMENT**
 - **EDUCATION**
- **FACTS**
- **STEPS TO SOLUTION**
- **SOURCES**
- **T. E. A.**



What if...

What if.....we could have schools that would help reduce such illnesses as allergies and asthma and therefore improve attendance?

What if.....we could have schools that helped improve the cardiovascular health of our children and reduce obesity?

What if.....we could have schools that protect and conserve the environment for the future use of the children who go to those schools now?

What if.....we could teach our children to take personal responsibility for the environments in which they live and learn?

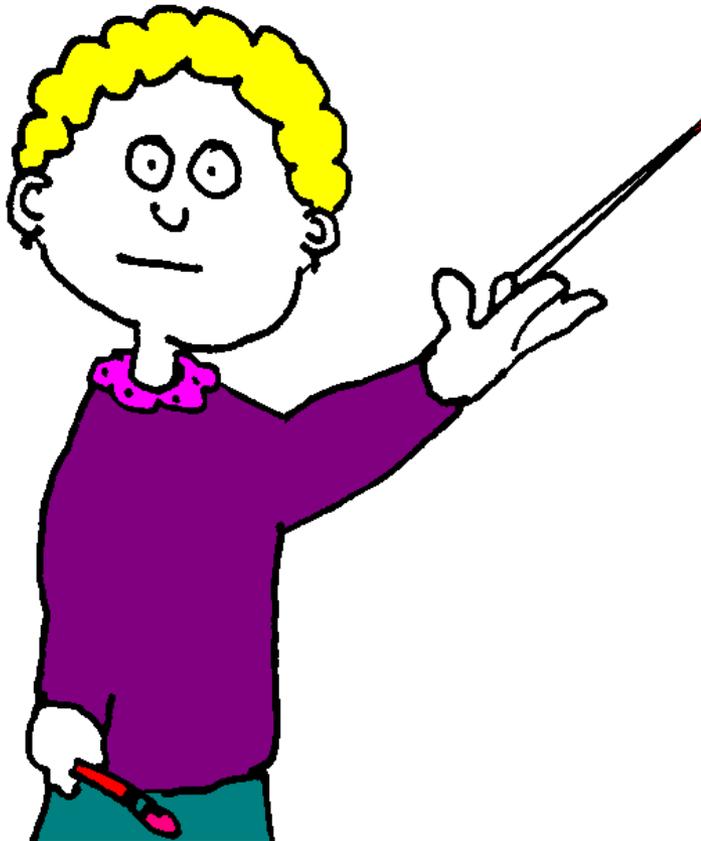
What if.....our children could learn to think critically and communicate effectively as they work together to solve problems?

What if.....our children could learn the core content as they carry out rigorous, relevant research?





The Problem

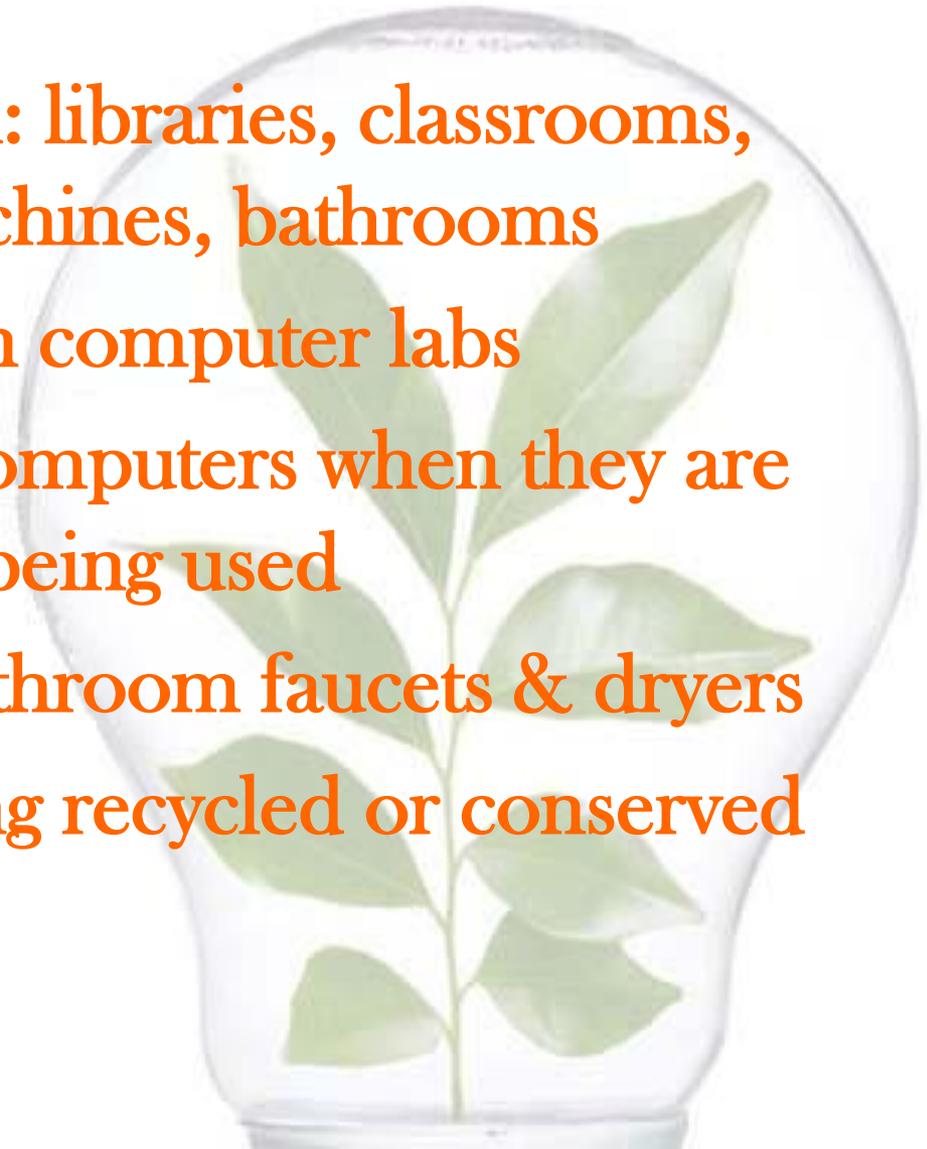


The problem begins with the fact that Hardin County Schools is wasting a lot of money through the expensive cost of their energy bills!

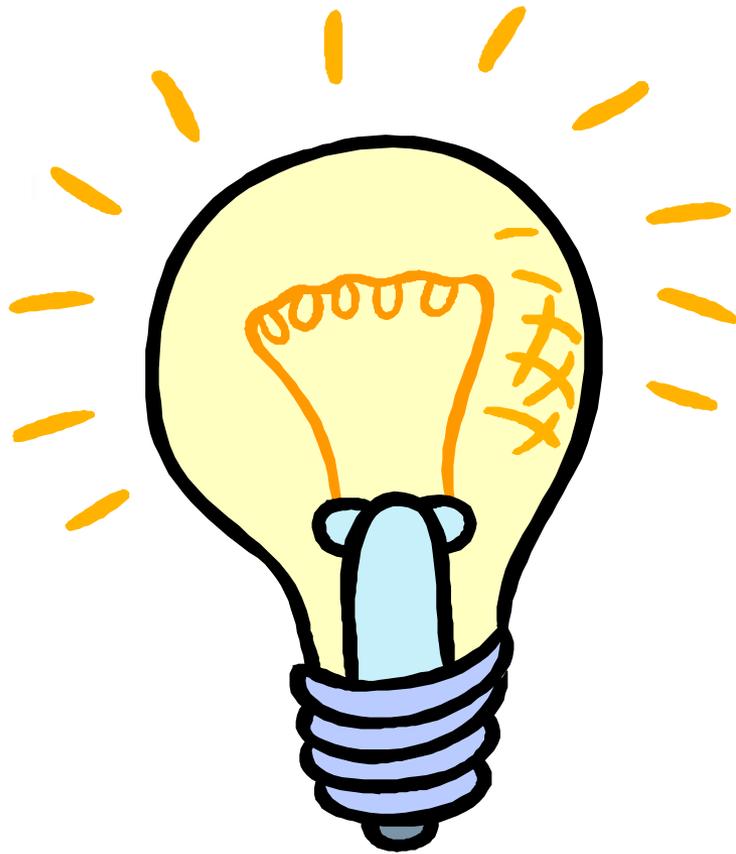


What is the cause?

- Leaving lights on: libraries, classrooms, vending machines, bathrooms
 - Cooling in computer labs
- Not unplugging computers when they are not being used
- Energy-wasting bathroom faucets & dryers
- Few products being recycled or conserved

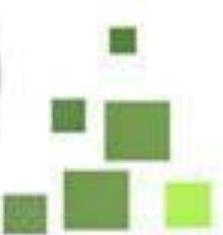


The Solution



The schools must implement better strategies that will make the school more efficient and help save on the energy costs.





Our Mission

Our mission works to improve the school system by conducting energy audits in order to:

- **Create and maintain a comfortable environment for the students and employees of Hardin County Schools.**
- **Raise awareness of energy issues.**
- **Promote energy saving practices among all Hardin County employees.**



Why An Energy Audit?

- Identify where energy is going
- Identify savings opportunities
 - Build a business case for investment
- Be a part of a comprehensive environmental program



Strategy and Implementation

- The main proposal of T.E.A.'s project is, of course, to make a greener environment for the county, but also to create a solid foundation of a leadership based business. With a team of four driven members, management and leadership are evident through a variety of different skills.
- The profit coming from these audits will pay for the devices used during the audit (digital thermometers, electrical circuit tracers, laser pointers, data loggers, etc.), salaries, and other company fees.

Strategy and Implementation

Charges and Services

- \$150 for each hour spent on the job site
- Each site will vary on how many hours it takes to complete the audit due to several variables, including:
 - Square footage
 - Number of rooms
 - Amount of electronic equipment
 - Data collection time from School Boards
- A standard commercial energy audit: 4-8 Hours

Equipment



Amprobe

Circuit Tracer



Elite Pro



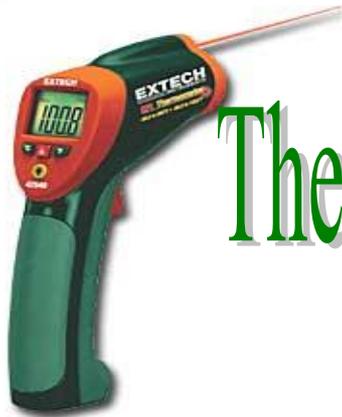
CT



Cobra Radios



Equipment (Cont.)



Thermometer



Gas Detector



VOM



Light Meter

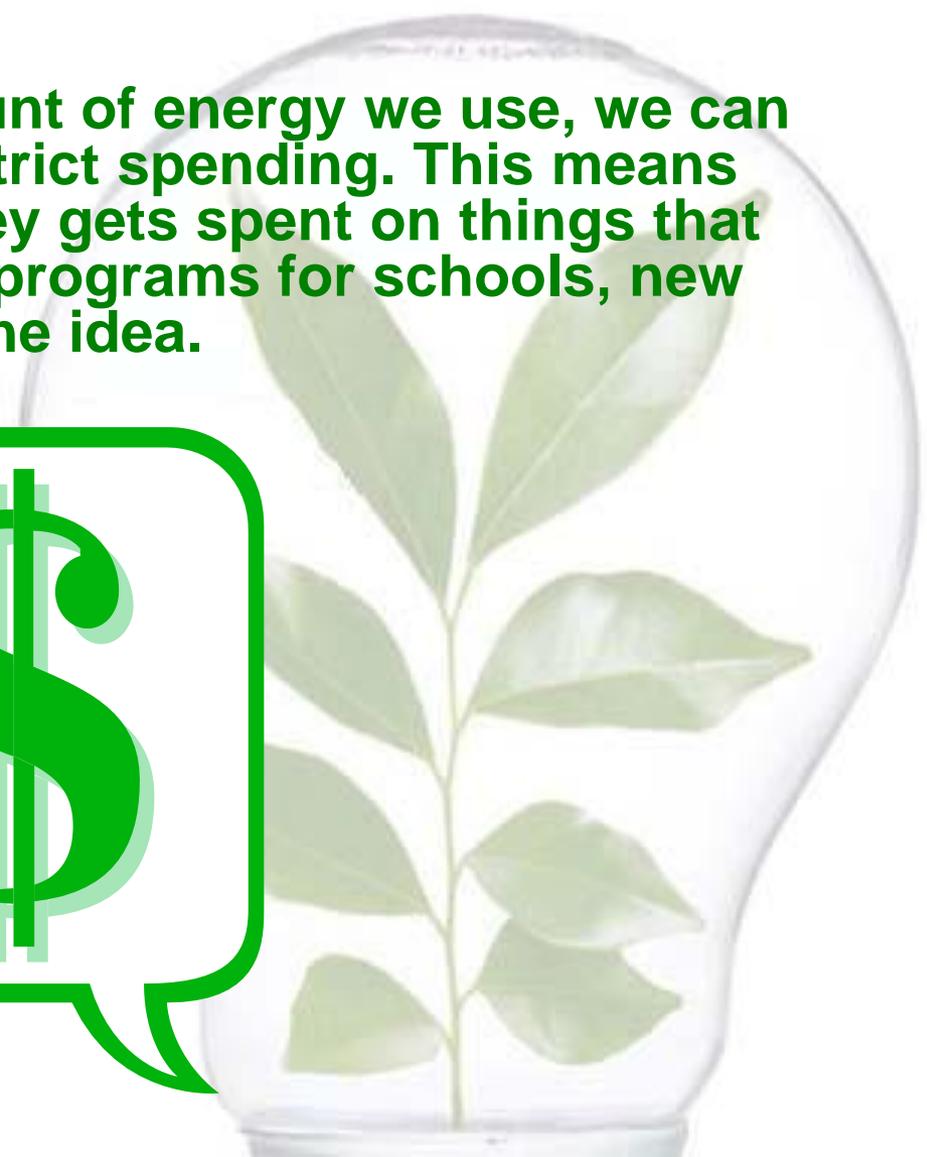




Why all the fuss!

- **Savings**

- By reducing the amount of energy we use, we can really cut back on district spending. This means that more of the money gets spent on things that we really care about: programs for schools, new equipment...you get the idea.



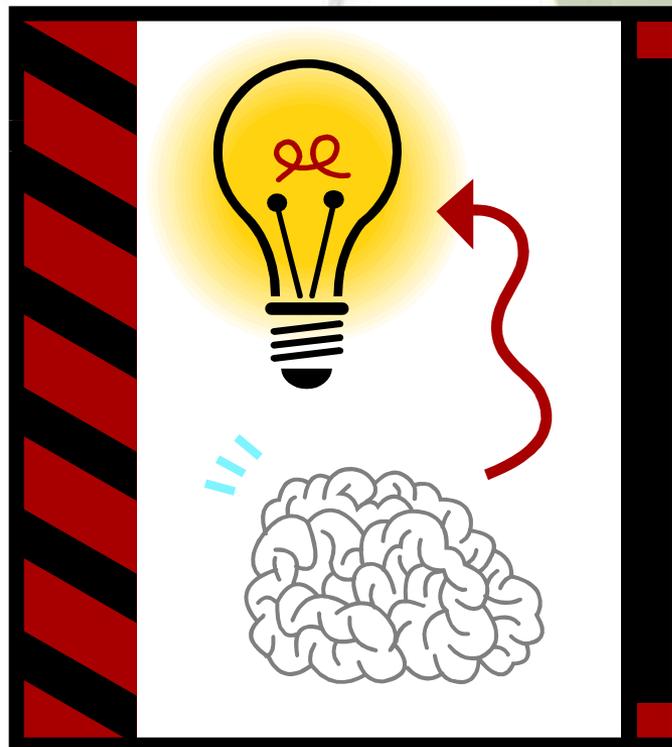


Why all the fuss! (Cont.)



- **Imagine**

- More money for teachers and staff
- More education and development programs
- New equipment





Why all the fuss! (Cont.)



- **Environment**

- Every time we switch on a light, or make a cup of coffee we use energy. Every time we use energy, we release Carbon Dioxide (CO₂) into the atmosphere. CO₂ is one of the main gases that contributes to Global Warming, which is a big threat to the planet. This is not only a problem because it puts us in the hot seat, but because it causes a greater incidence of floods, storms and drought.





Why all the fuss! (Cont.)

- **Education**

- By example, we can teach our future generation to preserve our natural resources. Energy is a very precious resource and right now, most of our sources of energy are from non-renewable fossil fuels. By using energy wisely, we can better provide for our children, as well as teach them the "bigger picture".



Facts

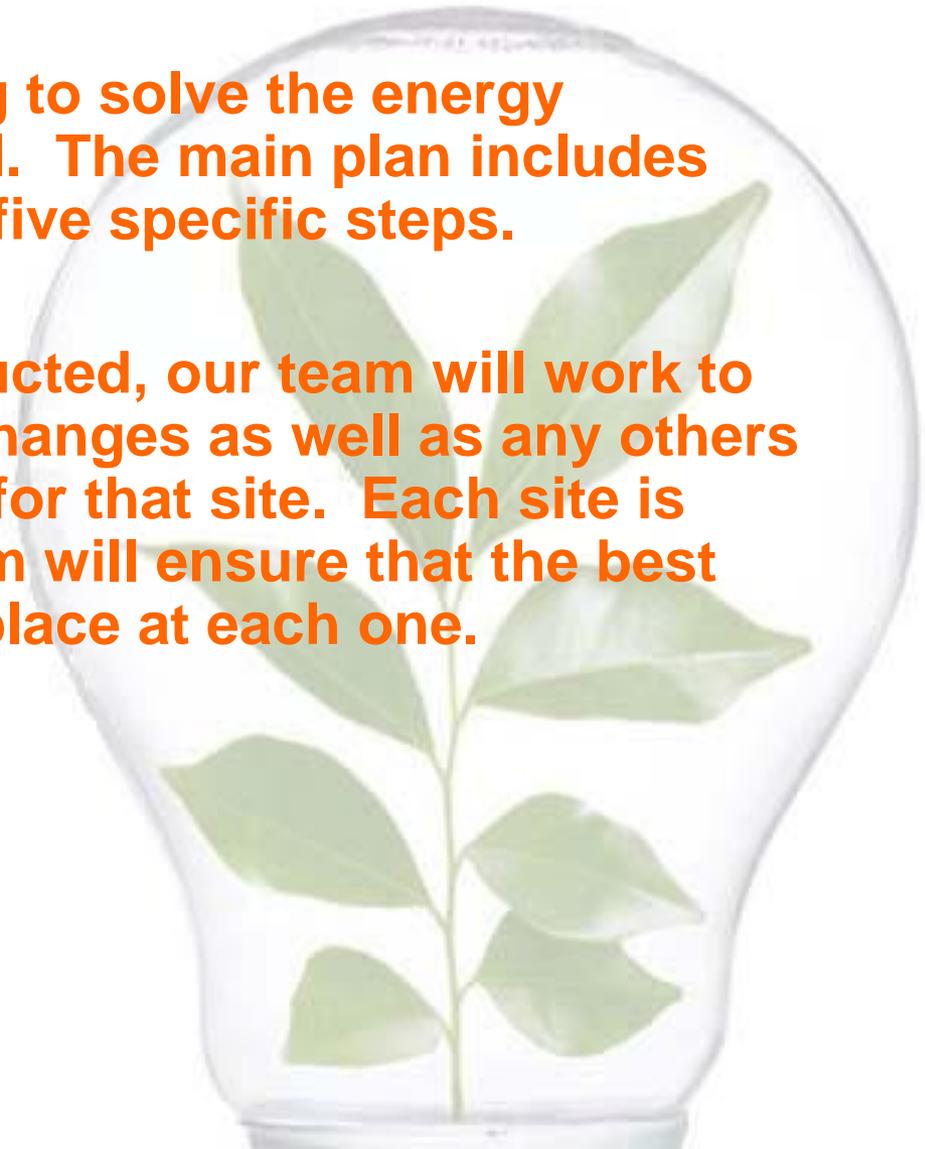
- **America's schools spend more than \$6 billion yearly on energy costs (the largest expense for schools after salaries.)**
- **According to the energy department, schools currently spend more on energy than they do for computers & textbooks combined.**
- **A computer left on 24 hours a day wastes \$224 a year in electricity.**



Steps to Solutions

T.E.A. is working to solve the energy issues at each school. The main plan includes implementing five specific steps.

After the audit is conducted, our team will work to enact these necessary changes as well as any others that are appropriate for that site. Each site is different, and our team will ensure that the best plans are in place at each one.



Steps to Solution (Cont.)

Basic 5-Step Plan

- Ensure that all appliances are unplugged when not in use, especially during the summer and breaks.
 - Have three light switches installed in the classrooms to keep only necessary parts of the room lit.
- Make sure that there are not leaks anywhere so heat and air can't be released.
 - Encourage teachers and children to turn the faucets off when not in use or when unnecessary.
 - Develop energy saving plan that will require schools turn thermostats up during the summer and down during the winter.

Our Sources

- www.usgovinto.about.com
- www.php.louisville.edu/news/new.php?news=1276
- www.energy.ky.gov/dre3/education/



T.E.A.



TEAM ENERGY
AUDIT



NEW HIGHLAND
ELEMENTARY SCHOOL