



Kentucky Green and Healthy Schools

Teacher Guide Water

If your students have chosen to do an Improvement Project in the Water category, the resources below can help them as they complete the Project Form.

Remember to let your students lead!

As much as possible, let the students decide the direction of their investigation and come up with Improvement Project ideas.

Places to Investigate

- Plumbing systems
- Bathrooms
- Drinking fountains
- School grounds
- Roofs and downspouts

People to Interview

- Maintenance/custodial staff
- Administrative staff
- Community members
- Students
- Teachers

Questions

These questions can be utilized as prompts should you need them. Ideally, we would like students to engage in their own questioning to provide an authentic learning experience.

- Water Quality
 - From where does the school's water come (e.g., well, river, reservoir)?
 - What is the quality of that source? (e.g. How does the Kentucky Division of water define water quality?)
 - What is the quality of the school's drinking water (e.g., level of contaminants, lead, mercury, PCBs, bacteria, added fluoride)?
 - Is the person who tests the water a certified operator?
 - Where is the school's Consumer Confidence Report posted (e.g., Principal's office, school board office)?
 - Where does water from the school grounds drain (e.g., local stream, sinkhole, name of watershed)?
 - What is the water quality of a nearby stream?
- Water Management
 - Who is the school's sewage provider (e.g. city, county, septic tank)?
 - How much money was spent last school year on wastewater for your school? For what was that money used?
 - Where does water from the parking lot, gutters, downspouts and other impervious surfaces drain (e.g., storm drain, sanitary sewer, stream, rain garden, drainage ditch, retention pond)?



- Does your school have any areas with bare soil where erosion can wash silt into nearby streams?
- Does the school have a plan to deal with hazardous material spills (including paint, oil, and pesticides) that might go down drains and impact waterways?
- Does the school have a plan for managing the runoff from the school property?
- Who is the school's water provider (e.g., private company, municipality, school-owned)?
- How much money was spent on water during the last school year?
- How many gallons of water did the school use last year?
- On average, how many gallons of water do school toilets use per flush?
- Does the school have water faucets that turn off automatically?
- Are water faucets located outside the building secure?
- Water Conservation
 - How often are all water pipes and faucets checked for leaks and other maintenance?
 - How and when are school lawns watered?
 - How many gallons of water does each student use per school day?
 - How is water conservation part of every grade's curriculum?

Resources

- [Bluegrass Greensource](#) - Bluegrass Greensource offers recycling, water education, and hazardous waste programs in central KY. They also offer grants to schools and other organizations.
- [Bluegrass Raingarden Alliance Raingarden Manual](#) - This website and raingarden manual is a useful tool for schools that want to build a raingarden.
- [East KY PRIDE](#) - East KY Pride offers grants and environmental education programs to schools in eastern KY.
- [EEinKentucky.org](#) - This website is a one-stop resource for environmental education in Kentucky. The site lists grant announcements, jobs, news, professional development opportunities, conferences, and other events from across the state.
- [KEEC Environmental Education Curricula](#) - The Kentucky Environmental Education Council has published several sets of lesson plans for all grade levels on the topics of solid waste, water, and biodiversity.
- [Project WET](#) - Project WET is an environmental education program that offers a water education curriculum guide, professional development, and workshops. The lesson plans in the guide can be used for teaching water topics to your students and to gather data for inventories.

Improvement Projects

Your students should come up with their own ideas for an Improvement Project, but below are some examples of previous Improvement Projects for Water:

- Installing automatic faucets, rain gardens and rain barrels
- Creek cleanup and pollution monitoring
- Monitoring water fountains, sinks and toilets for leaks, and fixing leaks
- Presentations about water conservation, water quality and flooding
- Installing educational signs on community storm drains





Extensions

After coming up with an idea for an Improvement Project, consider the following optional extensions.

- A) Submit your investigation documentation to the Project Learning Tree (PLT) GreenSchools! program for their Water category. Once you submit investigation documentation, your school becomes eligible for thousands of dollars in grant money from the GreenSchools! program. You can also submit your completed Improvement Project to this site. Learn more at www.plt.org/greenschools.

