

AUP Campus Stormwater Mapping

Brooklyn College City as a Lab GK-12 Program
Academy for Urban Planning

Time: 45 min
(2 class Periods- consecutive days)
Hands On? Yes ; Internet? NO

Standards Met: *Living Environment: Standard 1; PI 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3 Standard 1; PI 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3; Standard 4; PI 1.1, 6.1, 6.3, 7.1, 7.2; Earth Science: Standard 1; Key Ideas 1, 2, 3 : Standard 2; Key idea 1 Standard 1; Key Ideas 1, 2, 3 : Standard 2; Key idea 1 Standard 4; PI 1.2*

Title: AUP Campus Stormwater Mapping
Grade and Subject: 11th (Urban Ecology)
Number of Days for Completion: 1
Overreaching Goals/ Outcomes: Students will learn about how stormwater flows around their campus by surveying slope, probable water flow direction, and permeable surfaces.
Learning Goals/Outcomes: SWBAT- make and test predictions about stormwater flow in their school; transfer data from the field to maps; graphically depict and evaluate both predictions and results regarding pollution and stormwater control.
Materials: compass, pen, data sheet (attached), clipboards, and computers with powerpoint software.
Introduction: This is a 2-day lab activity where students will make and test predictions about stormwater in their school; draw maps of stormwater flow, stormwater structures, permeable surfaces, and pollution.
Instruction/Direct Experience: Day 1: Students will be given a brief introduction to stormwater (stormwater intro lesson) and told how they will collect the data. A pilot data collection day may be done and is recommended for students that have no previous data entry experience. Students are assigned sections around their school to focus on mapping of stormwater flow, permeable/impermeable surfaces, stormwater structures (storm drains) and pollution (yard waste and trash). Day 2: Students will use mapping sheets to construct a map using powerpoint. At the end of the class period map layers are overlaid in powerpoint.
Independent Activities: NA
Assessment: Students will discuss their results with the class
Connections: This lesson is a continuation of the stormwater intro lesson and can be tied with lab exercises such as infiltration and yard waste experiments (see lessons). Students understand how their schools stormwater plan could be improved by best management practices (such as rain barrels, more permeable surfaces).