

PARTS LIST AND COST

Material	Cost	Material	Cost
Nylon	0.05	Cheese cloth	0.10/100 cm ²
Cotton balls	10 for 0.01	Modeling clay	0.01/10g
Sponge	0.32	Plastic soda bottle	0.05
White filters	0.25	Plastic tubing (1/4")	0.10/foot
Activated charcoal	0.04/g	Plastic tubing (3/8")	0.23/foot
Charcoal briquettes	0.01/g	Plastic tubing connector straight (1/4")	2.15
Peat Moss	0.01/g	Plastic tubing connector straight (3/8")	2.58
Coffee filter	0.02 each	Plastic tubing connector T (1/4")	2.80
Kitty litter	0.01/100 g	Plastic tubing connector T (3/8")	3.56
Perlite	0.12/cup	Duct tape	0.02/foot
Cork sheet	0.01/10 cm ²	Stopper	0.15
Paper towel	0.02/sheet	Sand, straw, soil, clay, wood chips, cardboard, rocks, rubber cement	Free
Gauze pads	0.16/each	Other	See teacher

TEAM QUESTIONS (in your notebook after the project is finished)

4. Describe the modifications, if any, that were made in your design as you built and tested your water sampler device.
5. Are some ingredients more difficult to filter than others? Why?
6. How does your filter compare to those of other members of your class?
7. What was a particular strength of this stormwater treatment design?
8. What suggestions do you have for improving this design or the way in which it was presented?

GRADING

	3 – Great	2 – OK	1 – Inadequate
Design Proposal Form was approved on time	3	2	1
The cost of the system, including repair and maintenance, is less than \$10.00.	3	2	1
85% of each sediment must be filtered (Initial-final)/initial= ___ %			
• Soil	3	2	1
• Sand	3	2	1
• Corn starch (after settling)	3	2	1
• Nitrates (___ - ___)/ ___ = ___ %	3	2	1
• Salt (___ - ___)/ ___ = ___ %	3	2	1
• Oil (after settling)	3	2	1
75% of storm volume must be drained (1500 mL- ___)/1500 mL= ___ % lost	3	2	1
Storm event must be drained in 10 minutes or less	3	2	1
New contaminants are not added to the water	3	2	1
Perform routine maintenance procedures within 5 minutes	3	2	1
System is safe to handle and operate	3	2	1
Overall quality of presentation	6	4	2
Total	/45		