Science Standards Correlations Project
Activities by Grade Level Band—EnviroScape Model

K-2	3-5	6-8	9-10	11-12
Watershed Model Presentation	Watershed Model Presentation	Watershed Model Presentation	Watershed Model Presentation	Watershed Model Presentation
Francis the Fish	Is This Water Polluted?	Is This Water Polluted?	Is This Water Polluted?	Is This Water Polluted?
Garbage Bag Watershed	Watersheds: The Cleanup Job	Watersheds: The Cleanup Job	Garbage Bag Watershed	Garbage Bag Watershed
	Garbage Bag Watershed	Garbage Bag Watershed	Watershed Assessment	Watershed Assessment

Directions for setting up a garbage bag watershed: **

1) Cover section of the table (about 3' x 3') with several layers of newspaper.

2) Arrange the cans (3-5) on the newspapers to form your hills and mountains.

3) Cover the cans with the towel (or rag) to simulate a more natural topography.

4) Cover the towel with the plastic trash bag and adjust to show hills and valleys, a ravine (for the stream) and a flat area or areas to simulate wetlands, ponds and lakes.

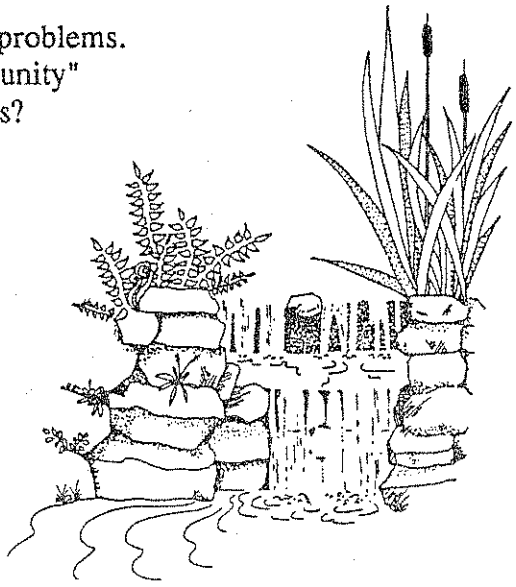
5) Use the permanent marker to define different land uses in your watershed, such as farm land, a park, roads, shopping centers, residential areas, golf courses, construction sites, industrial plants, etc.

6) Use the spray bottle to generate "rain". (Students could provide a weather forecast and sound effects such as thunder and wind). Point out and discuss the drainage patterns--can you see a stream or lake forming?

7) Sprinkle or drip the items in the small containers (kool-aid, cocoa mix, salt, food color, detergent) onto your watershed in the appropriate places to simulate the following nonpoint sources:
   - lawn or crop fertilization (kool-aid)
   - eroding soil from construction site or newly tilled farm field (cocoa)
   - road salt spill (salt)
   - automotive fluids washing off parking lots and roads (food color)
   - detergent from car wash (detergent)
   - household chemicals poured down residential storm drains

8) Create a second storm event to explore rain's role in transporting pollutants in your watershed, and discuss the problems associated with the stormwater runoff and pollutants.

9) Discuss possible solutions to the nonpoint source problems. Can you think of a way to rearrange your "community" to cause less of an impact on your water resources? What are the advantages and disadvantages of development in your watershed? What kinds of practices could you put in place to help prevent pollution?



** Or contact your local SWCD for the Enviroscape model.

Adapted from Garbage Bag Watershed activity developed by Jan Bush, Education Coordinator, Lake SWCD.