Activity: watershed mapping
time: 30 minutes to 1hour

Goal: students will understand where runoff from their neighborhood goes, and how it gets there. Students will understand the direct link between themselves and their watershed.

Overview: this activity can be done on the computer using Google Earth (or a similar mapping tool), or with hardcopy topographic maps. Instructions using Google Earth are given in a separate document.

Preparation: students will need hardcopy topographic maps, or computers with access to a mapping program. Students will need paper and pencil to sketch their watershed and record observations.

Outline:
1. Ask students if they know where runoff from their neighborhood goes. Do they know the path that it takes?
2. Have the students find their home or neighborhood on the map, and make a rough sketch of local topography and landmarks.
3. Using the map students need to find the path the water travels to the ocean (or a major river or lake). Water naturally travels downhill (perpendicular to topo map contours), and finds its way to the nearest canyon, stream, river, or low point. Once water enters a stream or river it is easy to follow that waterway to the ocean or major body of water. Have the students sketch the water's path on their map.
4. Students should identify and label what the water flows through on their map: drainage ditch, storm drain, canyon, creek, pond, river, ocean. Extension: have the students identify the ecosystems along the path, and some of the plant and animal life that their runoff affects.
5. Calculate the distance from the student's neighborhood to its final destination. This can be done with the "path" tool in Google Earth, or laying a string on a hardcopy map.

Conclusion:
1. Have students compare the final destination of their runoff. Does everyone live in the same watershed, or are their several in your area?
2. Ask students if they have ever visited the place where their water goes. Students should understand their connection to that place, and how their choices (littering, dumping, etc.) have an effect on that place.