



Steps for Designing Your Water-Efficient Landscape

I. Your Rainwater Harvesting System

Envision an area of land on one side of your school building. Where are the high points and where are the low points? What areas are level? Follow the directions on this page to design your rainwater harvesting system for the school of your choice (make all drawings on pages 136, 137, or 138).

1. Keep all drawing within the box that represents the edge of the school grounds.
2. Indicate high points with a plus sign. Use a red pencil.
3. Indicate low points with a minus sign. Use a blue pencil.
4. Indicate level areas by lightly shading them. Use a yellow pencil.
5. Draw the street that the school is located on, sidewalks and walkways, and other non-vegetated areas (playing courts, sand or gravel areas, etc.). Draw rocks and boulders in landscaped areas. Use a black pen.
6. Design your rainwater capturing system. Think about:
 - Where does the water drain off the roof?
 - Do you want to direct the water into holding tanks or into natural holding areas?
 - If the water runs directly off of the roof, how will you capture it and direct it onto plants?
 - Are there places where you want to construct berms to slow the flow of runoff?
 - If you are using a holding tank with a hose attached, how will you design your watering system to get water to plants?
7. Draw roof drains, rainwater holding tanks, watering systems, berms, and other features of your rainwater system (using symbols and a key to them) onto the layout of your choice. Use a black pen.

Steps for Designing Your Water-Efficient Landscape, continued

II. Choosing Native Plants for Your Landscaping

1. Start with a new copy of the school outline. This time you will design your landscaped areas and add plants to make the grounds attractive and shaded.
2. Choose from the list of native plants on pages 141–143. These plants have evolved in the arid Southwest and are good choices for landscaping that uses minimal water. *The only plant on the list that is not native is Bermuda grass, which is a turf grass.* Think carefully about how much turf you need since it uses the most water (73 gal. per square foot on average, compared with 17 gal. per square foot on average for native desert landscaping).
3. Color-code each type of plant from the chart (for example, use green for all trees, purple for shrubs, brown for cacti, and so on).
4. Use the icons shown beside the plants' names to represent them on your design layout.
5. Think about the low and high areas. Locate plants that need water regularly in low areas.
6. As you design your landscaping, plan for natural cooling of the building.
7. You can use the same plant species more than once in your design. Think about what will look beautiful, considering the colors the flowers will be when blooming, what heights the plants will be, what places in your school yard have the most shade and sun, etc.

III. Make a key for your landscaping design to tell which colors and symbols are used for which types of plants, etc. Write a paragraph or more describing your landscape design.