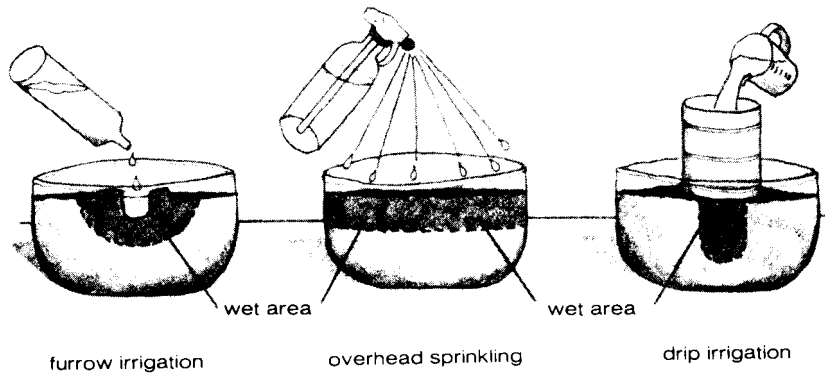


BED CONSTRUCTION AND IRRIGATION

Watering techniques

By using glass bowls filled with fine textured soil, the children can observe three methods for watering a garden: furrow irrigation, overhead sprinkling and drip irrigation. Screen soil using 1/8-inch mesh or handpick stones and clods from the soil. Add soil to the bowls and pack down.



To demonstrate drip irrigation, level the soil in a bowl and place a coffee can with a small hole in the bottom directly on the surface of the soil, next to the edge of the bowl. Add 1 cup of water. Because this is a slow method of water application, begin the drip irrigation experiment the day before so the children will be able to compare the results of all three methods.

In another bowl, make a furrow in the soil as illustrated. Fill a squeeze bottle with 1 cup of water and carefully fill the furrow, being sure to leave the hill areas dry. Repeat this procedure until the entire cup of water has been applied.

In the third bowl, level the soil, then sprinkle evenly with a pump spray bottle; use the same amount of water. This will illustrate the effects of overhead sprinkling.

Have the children observe the wetting patterns and note the characteristic differences of each method.

Materials Needed: 3 glass bowls, squeeze bottle, pump spray bottle, coffee can with small nail hole in bottom, fine textured soil.