

Step-stone Path

These instructions are for three different types Surface-hole, Mold-set & Upside-down for building and laying a step-stone path. The materials below are used in each type

Required materials: (Quantities depend on the size and number of (concrete, broken tiles or other colorful, smooth pieces of glass or stone desired).

Concrete 60lb bags will make (2) - 8x8x4 inch stones

Materials needed:

scissors, gloves, masks, water, and spray bottle

Ready-Mix Concrete

Thin Set Mortar or Vinyl Concrete 50 lb bag (covers 8-10 stones)

Gravel

Corrugated cardboard (from boxes)

Decorative Materials Broken or small vitreous, non-porous **tiles**, smooth stones, pieces of **glass**, decorative glass **beads** or **marbles**, or any other decorative, non-porous **"found" objects**

Clear contact paper

Tools: garden spade, trowel, screwdriver and hammer for constructing mold and breaking tiles, containers to carry water and mix cement, Contact paper (sticky)

Surface hole

Decoration

Arrange decorative stones and tile pieces right side up on a flat surface into a desired design roughly 2 inches smaller than the desired size of the step-stone. Place a piece of contact paper over top Leaving as little space between the tiles as you can so a only a small amount of Mortar as possible will show between the tiles. Cut away excess contact paper around the edge close to the tiles. Set aside (carefully). Select and set aside additional decorative pieces that will be used later in the step-stone

Base

Dig a hole the shape and size of the step-stone and at least 6 inches deep. Fill hole with gravel to a depth of 2--3 inches. Use cardboard form cut the size and shape of the hole and about 6-8 inches tall. Insert the cardboard into the hole and rest it on the gravel. Just overlap the edges. It should fit in the hole fairly snugly. Push soil and stones all around the outside of the cardboard to hold it securely in place. Mix the Ready-mix concrete and fill the hole, covering the gravel, leaving about 1/4 to 1/2 inch less than the finished height of the step-stone. Smooth it over.

Finishing

Without waiting for the Ready-mix to dry, mix the Mortar to a cake-batter consistency and pour it over the Ready-mix to a depth of 1/4-1/2 inch. You will have only 15 or 20 minutes before the Mortar starts to harden. Carefully place the decorative tile design onto the Mortar. Do not dislodge the tiles, nor remove the contact paper until everything is set, about 2 days. Working fairly quickly, press the contact covered tiles into the Mortar, working the Mortar between the tiles, pushing down on the tiles and squishing the Mortar up to the contact paper, surrounding each tile as thoroughly as possible. This will hold the tiles in place. Next, take the extra tiles and push them in one at a time around the outside of the contact papered design, also filling in as much space as possible.

Continue as above with all of the remaining step-stone s you wish to create, making as many as you wish to make or have materials and workers for at the same time. Allow to set 2 days before removing contact paper, and before putting any weight on it.

Upside-down

Mold:

Use a disposable cake pan or disposable plastic dish that is at least 2 inches deep and about 8 inches diameter for the mold. Wrap masking tape around the outside to support the sides of the mold from the weight of the concrete.

Decorative pieces:

Place a circular piece of clear contact paper to fit the inside of the mold. Place the contact paper sticky side up on the inside of the mold. Place stones, beads, tiles etc. on the contact paper, right side down.

Concrete:

Mix thin set (finer) concrete and pour a thin layer over the mosaics just to cover. Mix ready mix concrete (roughly 7 pounds of cement will fill this size mold. Mix in about 1 1/2 cups of water a little at a time 'til cookie-batter consistency)

Finishing:

Allow to sit without moving for at least 12 hours, a week is best. Remove mold and cover with a damp cloth to improve hardness for a few days. Do not walk on for at least two weeks.

Precautions:

DO NOT DISCARD any leftover concrete, or the rinse water from containers or tools used for mixing concrete, down drains - it can close up the drain! Use up any leftovers by making smaller paperweights or fill up a hole in a broken sidewalk, etc.! Use masks and gloves to avoid breathing dust or skin exposure to concrete mixes, they contain strong chemical compounds.

Mold-Set

Decoration

Arrange decorative stones and tile pieces right side up on a flat surface into a desired design roughly 2 inches smaller than the desired size of the step-stone. Place a piece of contact paper over top leaving as little space between the tiles as you can so only a small amount of Mortar as possible will show between the tiles. Cut away excess contact paper around the edge close to the tiles. Set aside (carefully). Select and set aside additional decorative pieces that will be used later in the step-stone

Foundation & Finishing

Do not dig the hole, but rather use a pre-made box mold of wood or other material that can be cut away or removed after the cement has set. Use 2x4's and double headed nails to construct the box. Place mold directly on the ground and proceed as above: Ready-mix, Mortar, decorative tiles.

Installation

After setting for two days, remove tile from mold, and place in prepared pathway. Ideally the path will have been dug out 8 inches to allow for a 2-3 inch gravel base and 2 inch sand layer placed over the gravel. Step-stones are installed, close together or alternating with other pathway materials, on top of the sand layer. Fill gaps with additional sand. A simpler way is to dig out a hole in the ground, even directly into the grass, which is the depth of the finished step-stone. Place stone in hole and tamp in dirt around stone so it is snugly in place.