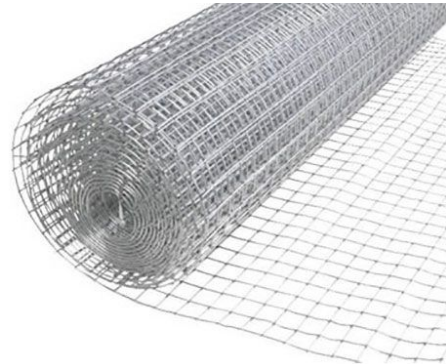


How To Make Stepping Stones



Materials:

Quick setting concrete – Quikrete has many options but Sand/Topping Mix is the best
Bucket or wheel barrow for mixing in
Shovel or drill powered paint mixer for mixing and scooping
Water
Non-stick cooking spray or petroleum jelly

Galvanized hardware cloth or chicken wire – will need tin snips or other sharp knife or scissors to cut to size needed

8"x8" pan – we use the cheap tin disposable pans

Materials to decorate with:

Beads

Gems

String

Broken glass - just make sure all edges are below the cement so bare feet or someone that falls does not get cut!

Nature-based objects, such as sticks, leaves, seeds (can either leave stuck in or leave the casting)

Paint -paint suggestion made in step 14

Safety equipment:

Gloves – especially for the youth - food safety gloves will work or you can use some heavier duty ones if you wish.

Dust mask and eye protection for anyone around when mixing cement

****Safety Precautions:**

Make sure youth are aware that cement will “sting” as it dries on them and can cause damage to skin, eyes, mouth, etc. If wet cement gets on their skin, wash it off immediately! Follow all safety precautions and directions on your bag of quick drying cement!

Directions:

1. Collect all of your supplies and find a space outside to work. You will want to be at or very close to the area that you wish to store the stones as they dry as moving them can be challenging. Shade from the hot summer sun is suggested. See drying tips below before starting.
2. Cut hardware cloth so that it is about $\frac{3}{4}$ to 1 inch smaller on all sides than your pan. You don't want to take the chance of it sticking out of the side but also want the edges to be reinforced. You will need one for each pan or stepping stone you are creating.
3. Lay out pans onto newspaper or other paper if you need to keep concrete off of grass or other surfaces. Spray generously with cooking spray or wipe on petroleum jelly.
4. You will have to estimate how much cement mix to use. (I created 14 8"x8" stones with one bag. Realize you may put more or less water than I did so it will vary!) Put into your bucket or wheel barrow you will be mixing in.
5. Add water to the concrete. You will want to add water slowly and stir quickly. Use your shovel or paint mixer. You can always add more water but if you use the whole bag, it is impossible to add more cement mix! You want to add water and stir until you get the consistency of banana bread batter – in other words, you want it thick, but still able to spread evenly throughout pan.
6. One pan at a time, fill about half way full. While wearing gloves, jiggle the pan to allow air bubbles in the cement to surface. If youth are jiggling, have them sing the Happy

Birthday song once while shaking side to side. Then have them sing it again while shaking towards and away from them or in a circular motion (like turning a steering wheel back and forth). Try not to let me go up and down as you don't want them cause the cement to fly out of the pan and too much jostling will create instead of eliminate air bubbles!

7. Place the hardware cloth on top of the cement mixture in the pan. Press firmly so all corners stick but do not worry about sinking it into the cement. Jiggle again to ensure you did not create any air bubbles.
8. Pour or scoop cement on top of the hardware cloth to the depth to which you wish to make your stepping stone.
9. Jiggle again for at least two times through Happy Birthday song using the same techniques as before.
10. Allow the cement to dry for about 5 minutes (this will depend on the temperature of the day – if extremely dry and hot, only go about 3 min). You want the cement to slightly set up so that your materials will stick where you want them but not sink into the cement so much that they disappear.
11. Have youth put on plastic gloves. Place materials, such as gem stones, string, sticks, beads, etc, used for decorating on top. Push in gently. You need cement to encase the object so it will stay in the cement but you do not want to cover it up so that you can only see the tippy top – unless that is the design the youth wants!! You can do handprints or footprints but may need to let the cement set up a little more before doing that. Use food safety gloves or seran wrap that has been coated with cooking spray to protect skin from contact with the cement.
12. Be sure to wash all mixing tools before cement dries. Do not wash into public water. Wash into gravel areas that you want mind having cement clumps if they dry that way.
13. After cement dries (see drying tips below), your stone should slip right out of the pan!
14. If you choose to paint your stepping stone, make sure you pay attention to the type of paint being used. Acrylic paint will work but you need to make sure it is multi-surface. If ANY paint is used, be sure to spray it with clear acrylic coating – high gloss is the only one that will be water-resistant! Allow clear coat to dry for 48 hours before exposing to water. (both of the examples below were purchased at Hobby Lobby in the paint section)



*Drying Tips

- Allow stepping stones to dry undisturbed for 48 hours.
- If no shade is available on hot summer days, you will want to put a little water on top of the stones occasionally to cool it off. Cement that dries too quickly usually loses too much water and will become very fragile.
- Selecting back to back cool or overcast days to set cement is the best!

Safety Precautions:

Make sure youth are aware that cement will “sting” as it dries on them and can cause damage to skin, eyes, mouth, etc. If wet cement gets on their skin, wash it off immediately! Follow all safety precautions and directions on your bag of quick drying cement!