**FERRO-CEMENT TANK**

This is what you will need:

1. **(a)** Strong wooden poles or timber - at least 2 metres long
2. **(b)** Clean sand
3. **(c)** Cement
4. **(d)** 2 short lengths of pipe - one with a tap
5. **(e)** Galvanised wire mesh (chicken wire) with 12mm openings
6. **(f)** Galvanised fencing wire
7. **(g)** At least 2 flat plasterer's trowels

Water tanks store rainwater from roofs. Tanks made of ferro-cement are fairly cheap, simple to make and easy to repair. You do not need to use a lot of cement because of the wire reinforcement. The cement mortar can be as thin as 50mm.

At first fill the tank very slowly. Cover the tank with a roof to keep out dirt and insects.

Congratulations!

**REPAIRS**

If any cracks appear, empty the tank, chip away on each side of the crack and replaster. Again keep it damp for 2 weeks.

Keep it damp for at least two weeks before filling.

**Let us know how you got on!**

1. **Drive in wooden posts at 250mm intervals around the inside edge of your marked circle.**
2. **Mix up the mortar...**
   - 3 parts sand
   - 1 part cement
   - 3/4 part water
   - The mix must not be too wet.
3. **While the mortar is hardening, you must keep it damp for several days if possible. Old sacks or matting can help keep it damp.**
4. **Spread 25mm of cement mortar across the floor of the tank.**
5. **Prepare the walls by winding at least two layers of mesh between the poles, spiralling upwards.**
6. **Lay 2 layers of wire mesh across the floor of the tank, between the poles. Leave at least 300mm of mesh to bend upwards.**
7. **Begin plastering the tank walls with the mortar mix. This needs at least two people - one on the inside and one on the outside. They work together to stop the mortar falling through the mesh.**
8. **The mesh should be strengthened by winding around ordinary galvanised fencing wire.**
9. **Fix a pipe for the tap in place 100mm above the floor and another at ground level for a washout, which is normally kept plugged.**
10. **The tank must be reinforced by including two 2mm long reinforcing bars between the layers of mesh.**
11. **Begin pouring the cement and mortar mix into the tank.**
12. **When the tank is full, you can stop pouring.**

**WALLS**

- The walls are built around a strong reinforced wire frame. The tops of the poles are fixed into wooden plugs.

**TOOlS**

- The main tools required are:
  - Sacks
  - Matting
  - Trowels
  - Wire mesh
  - Mortar

**MATERIALS**

- Sand
- Cement
- Water
- Galvanised wire mesh
- Galvanised fencing wire

**Preparation**

- Make sure the ground is level beneath the tank.
- Drive the poles into the ground, making sure they are upright.
- Flatten the ground around the tank, and tamp it down with your foot, to ensure firm support.

**Filling**

- Fill the tank with water. Keep it fully filled for the first 12 months.
- Check the tank occasionally for leaks. If the tank has a leak, fill it, and then keep it filled with water until the leak is repaired.

**PLASTERING**

- Mix the mortar by hand or with a cement mixer.
- Use a trowel to apply the mortar to the walls of the tank.
- Use a finishing trowel to smooth the surface of the plaster.