

Setting up a Freshwater Aquarium

There are a lot of options for setting up aquariums, with many different sizes and lots of different equipment that can be used. An ideal beginner aquarium is one of the new 'all in one' aquariums made by a number of manufacturers. These come with lights and filters built into the aquarium and are easy to set up. If you are going to keep tropical fish then you will need to purchase a heater as well.

Basic Equipment List

Here is what is needed to set up a freshwater Aquarium. Your local pet or aquarium store can provide you with the right advice when you are deciding what to buy:

- Aquarium and stand to suit
- Gravel
- Background if desired
- A Filter system and Pump
- Light
- Heater for Tropical Fish
- Air stone
- Plants (natural or imitation)
- Decorations such as rocks, driftwood, ornaments, flower pots etc
- Water conditioner, pH Test kit, Ammonia Test Kit
- Fish and fish food

Buy your fish last—you need to allow time for your tank to "cycle" before you can introduce your first fish.

Where to put the aquarium

A low traffic, quiet area out of direct sunlight is best. Do not put your tank in front of or near a heater or cooler, as it leads to temperature fluctuations which will stress the fish. Your tank should be placed near an electricity point so that you can plug in your heater and filters easily. Your power point should be on an Earth leakage circuit breaker.

Ensure that your tank is sitting on a suitable tank stand or base and floor that will support the weight of the tank. Make sure that the stand is level, with a sheet of polyfoam or similar under the tank.

Setting up

1. Clean out your new tank with tap water only. Do not use any sort of chemicals or soaps. Using soaps can leave residues on the glass and harm fish once they go into the tank.
2. Wash the gravel thoroughly with tap water in a bucket. Rinse it until all the dust is rinsed off. Place into the aquarium to a depth of 1 to 2 cm. If you are using an undergravel filter, then place your gravel to a depth of 5cm.
3. Rinse ornaments (rocks, driftwood etc) with tap water and place carefully into aquarium.

4. Install all of your electrical equipment e.g. heater, filter and air pumps. **CAUTION:** Do not turn on your equipment until there is water in the tank and your hands are out.
5. Now you can fill your tank with water. An easy way to do this while avoiding messing up your ornaments, is by placing a plate into the bottom of the tank and pouring water over the top. Add water conditioner to remove toxins in the tap water, and adjust pH and water hardness to suit your fish's needs
6. You can then plug all electrical elements into the power points and turn them on. Allow the aquarium time to heat up, before adding plants and cycling your tank for fish. This usually takes 12—24 hours.
7. Before introducing your fish, test your water conditions using your pH and Ammonia test Kits. Make sure that your Ammonia is 0. For a guide to the pH required by your fish, download the Care Sheets from the Aquarium Industries website. Remember to keep the pH slightly acid (6.8-7.0) while cycling your tank as it reduces the toxicity of ammonia. Do not introduce fish until the water conditions are correct (see below for tips on how to correct them if they are not right when you test).

Cycling a new tank

No matter what type of filter you use, 'good' bacteria will need to colonise it, in order to remove toxic waste products such as ammonia from the water. This process is called nitrification or biological filtration. New aquariums and filters will not have these bacteria and it can take several weeks to establish a fully functioning biological filter. During this time ammonia or nitrite can build up to toxic levels causing stress, disease or death. Therefore it is important that you do not overstock the tank. Problems can be reduced by:

- Gradually building up the population of fish over 4 to 5 weeks.
- Use live plants – these can absorb some of the toxic products directly from the water.
- Only feed the fish sparingly – once every 2nd day to reduce the amount of ammonia produced.
- Test ammonia and nitrite levels – water change as needed.
- Keep pH slightly acid 6.8-7.0 as it reduces the toxicity of ammonia.
- Use 'Stress Zyme' 'Cycle' or similar products to boost nitrifying bacteria levels.

For more information, download the "New Tank Syndrome" Care Sheet from the Aquarium Industries website. The "Adding Fish to your Home Aquarium" Care Sheet will also provide useful tips on introducing your fish to their new home.