

## Maintenance...

Water quality needs to be monitored all of the time, especially during initial set-up and when stocking the tank,. This helps to reduce the chance of causing any damage to the animals because of the build up of high ammonia (NH<sub>3</sub>) and nitrite (NO<sub>2</sub><sup>-</sup>) levels. It is also advisable to test for nitrate (NO<sub>3</sub><sup>-</sup>), pH and hardness. Keep a watch on and notes of your water temperature.

Regular partial water changes are required to remove excess nitrate. This should be carried out as often as required. Remember smaller fish tanks will require more regular maintenance as the water is less stable than in larger aquariums.

Filters need to be checked for clogging and waste build up. If they require cleaning **NEVER** rinse under a tap as this washes away the beneficial bacteria. If clogged rinse the filter media in some of the waste tank water during a routine water change.

## Transporting and releasing your fish...

Fish are easily stressed for instance by excessive lights, vibrations, noise and movement. When transporting your fish home try to reduce the stressors your fish are subjected to.

Your retailer will usually sell you your fish in a plastic bag. Try not to keep them in this too long. It is best that once purchased the fish should be taken home straight away to avoid any changes in the chemistry and temperature of the water in the bag.

Once home your fish will need to acclimatise to their new environment. It is best to switch off aquarium lights and float the bag in the water of your tank for up to 30 minutes to ensure the temperature in the bag is the same as the aquarium water. Slowly add small volumes of aquarium water to the bag. This allows the fish to acclimatise to any differences between the retailer's water and your own. This can take up to half an hour, once complete slowly release the fish into the aquarium adding as little of the shop water as possible and discard the bag and excess water (Note: this process may take longer with more specialised species e.g. Discus). Ask your retailer for any more advice you need regarding the species you have selected.

## Checklist...

Before purchase ensure that:

- You have the appropriate equipment and position** for the aquarium.
- You have researched all the species you are** interested in and your final choices are all compatible.
- You are familiar with how to transport and release** your fish.
- You are aware of the daily, weekly and monthly** maintenance your aquarium will require.
- You are prepared to look after your fish properly** for the duration of their life.

**NEVER RELEASE YOUR AQUARIUM ANIMALS OR PLANTS INTO THE WILD.**

Never release an animal or plant bought for a home aquarium into the wild. It is illegal and for most fish species this will lead to an untimely and possibly lingering death as they are not native to this country. Any animals or plants that do survive might be harmful to the environment.



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## How to...



# Set up and maintain a freshwater aquarium.

## Introduction...

Setting up an aquarium can be an enjoyable and rewarding hobby for adults and children alike. It has been shown that watching the fish in a healthy and well maintained aquarium can reduce your stress levels.

But before purchasing an aquarium you should consider all aspects raised in this leaflet to ensure that the underwater community which you choose to create is looked after properly, and that the fish remain healthy.

As a general rule you should, within reason, buy as big an aquarium as possible. Larger aquariums contain more water and it is easier to maintain a healthy environment in it for your fish.

## Equipment...

The equipment required depends upon the type of set up that is chosen. Freshwater aquaria can be used to keep either coldwater species e.g. goldfish which must be kept at room temperature or tropical species which must be kept in heated water.

A generalised checklist for a freshwater aquarium should include the following:

- 1) Glass or acrylic aquarium
- 2) Suitable stand (if appropriate)
- 3) Gravel
- 4) Filtration
- 5) Lighting
- 6) Secure lid
- 7) Siphon cleaning device (recommended)
- 8) Ornaments
- 9) Plants
- 10) Heater (tropical set-ups)
- 11) Water conditioner / dechlorinator
- 12) Thermometer
- 13) Water testing kits
- 14) Food

## Positioning your tank...

Once all of the equipment is ready the tank should be positioned carefully so it is:

- i) Out of direct sunlight and away from sources of heat.
- li) On a perfectly flat level surface or stand which can indefinitely support the weight of the tank when its filled with water.

## Maturing your tank...

Freshwater fish have little or no tolerance of ammonia ( $\text{NH}_3$ ) or nitrites ( $\text{NO}_2^-$ ) therefore the aquarium needs to be "matured" before being fully stocked. Maturing a tank involves growing a population of nitrifying bacteria in the filter media. These bacteria are responsible for quickly breaking down fish waste into ammonia, nitrites (both of which are dangerous to fish) and then to much less toxic nitrates.

Once the aquarium has been filled and the water has been dechlorinated switch on your equipment. It is advisable to leave the aquarium for at day or two, this ensures that the temperature is reached if it is a tropical set-up, as well as ensuring that the equipment is working correctly.

Following this process there are two commonly used methods to mature the aquariums filter. A commercially available bacterial supplement can be added as per manufacturers instructions or a small number of fish can be added to the aquarium. Whichever method you use the ammonia and nitrite levels should initially successively rise and then fall while the nitrate (the end product of filtration) levels will usually continue to rise. It is important if you have added fish that the levels of these waste products do NOT rise above the guidelines below. Regular partial water changes will be required. You should use test kits regularly to monitor any changes in water quality and take action as necessary. Once these levels have dropped to a safe level (preferably zero) permanently, the tank is mature and stocking can continue slowly. Each time you add more fish or increase feeding a "mini" maturation process will take place. The time for maturation will vary from aquarium to aquarium and therefore requires patience.

	Coldwater/ Tropical freshwater
Ammonia ( $\text{NH}_3$ )	0.02mg/l
Nitrite ( $\text{NO}_2^-$ )	0.2mg/l

## Adding your fish...

For help choosing the type of tank that you would like to keep ask your retailer. There are also a range of OATA care leaflets covering the majority of species commercially available.

Before adding any fish, get some advice from your retailer about the species in which you are interested. As with the rest of the animal kingdom, not all fish species will peacefully cohabit. Different species may also prefer different water types.

Patience is a virtue, add fish slowly. Overstocking or stocking too quickly may cause "new tank syndrome" when the filter is not capable of coping with the increased waste load. Ammonia and nitrite can quickly build up to unhealthy levels and often fish will not survive.

Healthy fish have clear bright eyes, undamaged fins, intact scales, no ulcerations or bumps, appropriate swimming and steady breathing. Do not purchase a seemingly healthy fish if sickly fish are present in the tank with it. Fish diseases can be easily carried without showing any symptoms. If in doubt ask

## Stocking levels...

It is not possible to say exactly how many fish your aquarium can hold. The differences in size, species requirements, water parameters and compatibility of fish available is vast.

Ask your retailer for advice on stocking densities for your chosen aquarium

Aim to create as natural a set up as possible, e.g. shoaling fish need to be kept in numbers.

Remember that decoration and plants take up space, however these are recommended additions. Live plants help to remove nitrate, and ornaments can provide less boisterous and reclusive fish with a safe retreat.

The diet and feeding requirements vary between species. Some feed at the surface, others will be found throughout the water, whilst others will spend most time at the bottom of the tank. Be sure to have suitable food to cater for all of your fishes needs.

Do not expect to fill your tank with as many fish as your local retailer. They are able to stock tanks more heavily than home aquariums due to their management expertise and advanced filtration systems.