

## Setting up an Aquarium: Where To Begin

Written by Joe Anderson

Friday, 25 December 2009 16:20 - Last Updated Friday, 25 December 2009 16:32

---

When starting up an aquarium, the hobbyist needs to decide what type of tank he/she would most like to establish, i.e. what type of environment and what type of species he/she would like to maintain. There are primarily three types of aquariums (excepting marine tanks) that can be established.

- A fish only tank with very few live plants, plastic plants and decorations, or no decorations at all.
- A "Dutch" style aquarium with an emphasis on live plants with few or no fish.
- A balanced ecosystem containing both live plants and fish in equal proportion.

Having determined the type of environment desired. The hobbyist must next consider the type of inhabitants and decorations desired. These considerations can be based on either aesthetics, cost, or availability. Before purchasing these items, however, the hobbyist should research the particular choices to determine the environmental conditions necessary for their proper upkeep. Once this information is known and compatible inhabitants have been chosen you are ready to set up your new aquarium.

**Starting a new aquarium, or keeping an existing aquarium healthy, requires at least four basic principles be followed:**

- Attention to the nitrification process; referred to as cycling an aquarium is of primary importance, especially in regard to a fish only tank. This issue is discussed in more detail at both the [KRIB](#) and in the [Freshwater Fish FAQs](#) (Frequently Asked Questions).
- Proper water parameters; pH, temperature, carbonate hardness, salinity, etc., must be established in order to provide the tank inhabitants with an environment resembling that of their natural habitat. Study the eventual inhabitants needs and the requirements for keeping them. Balance these against your local water parameters and the feasibility of any changes to such that may be required.
- Proper maintenance schedules; water changes, filter replacements, and gravel vacuuming are important to maintain the above established parameters by removing dissolved

## Setting up an Aquarium: Where To Begin

Written by Joe Anderson

Friday, 25 December 2009 16:20 - Last Updated Friday, 25 December 2009 16:32

---

solids/wastes and potentially harmful bacteria. One-quarter (1/4) volume of water should be changed at least once a month. Larger, carnivorous or high waste producing fish will necessitate more frequent water changes. However, more than 1/3 volume water changes are unadvisable except in conjunction with medicinal treatments or algae removal procedures. Routine maintenance is best kept at the 1/4 to 1/3 volume level.

- Suitability or Compatibility of tankmates and or tank decorations should also be considered to allow the inhabitants both a degree of comfort with their surroundings and ensure that these surroundings, especially the decorations, do not interfere with the environmental considerations. Don't choose a bunch of pretty tetras then put them in with a carnivorous specie that will view his tankmates as no more than reluctant dinner entrees.

The first step is to cycle the aquarium to allow the nitrifying bacteria to develop. This process is discussed in more detail in the FAQ or at the KRIB. For our purposes, keep in mind that this step must be completed first so that the new inhabitants do not meet an untimely death upon entry into their new home. This process usually should take about two to three weeks. Some people would even suggest letting the new tank water set for a full month. This process can be speeded up with the addition of commercially available start-up concoctions or with the addition of a "seeded" filter; one that has been used in an already established tank.

In a planted tank this process will be even more rapid. And, if the tank is sufficiently planted the hobbyist can skip the waiting period can be shortened to just a few days. The plants, and any additional decorations, will provide the nitrifying bacteria with a platform upon which to establish. This is the same concept at work on an aquarium filter. By providing more surface area; rocks, wood, plants, or other decorations, in addition to any filter media used the nitrification process will be speeded up considerably.

### **SPELLED OUT INSTRUCTIONS**

## Setting up an Aquarium: Where To Begin

Written by Joe Anderson

Friday, 25 December 2009 16:20 - Last Updated Friday, 25 December 2009 16:32

---

### For a Fish only or mainly fish type tank:

Cycle the water for at least two weeks, using a commercial ammonia/ium inhibitor. Allow a longer period

### For a "Dutch" style aquarium, with an emphasis on plants:

Cycling a planted tank is usually unnecessary. However, it is still a good idea to wait a week or two before

### For a balanced aquarium, containing fish and plants in equal proportions:

The rules to setting up this type of aquarium are similar to those of establishing a plants only type tank.

## FILTRATION

Without getting into the pluses and minuses of filter selection, I will simply suggest that you consider how much waste you will be removing, how much water turbulence is acceptable, the type of media that can be used, cost, and aesthetics when making your filter selection. For the beginner, suffice it to say that anything that will remove the solid wastes and trap them for easy removal will be sufficient. An over-the-back or canister filter would be a more than appropriate choice. Both are readily available and come in a wide variety of models. In a fully planted tank, in fact, filtration is necessary only for mechanical filtration (the removal of solid wastes and debris). Chemical and biological filtration is carried out by the plants. For more information on

## Setting up an Aquarium: Where To Begin

Written by Joe Anderson

Friday, 25 December 2009 16:20 - Last Updated Friday, 25 December 2009 16:32

---

selecting a filter, see the [KRIB FAQ](#) .

### LIGHTING

Lighting is really only an issue in a planted tank. The type and amount of lighting is open to debate and situation. 2-4 watts per gallon is a good Rule of Thumb, but is by no means a LAW. Depending on the species requirements and the aquarist's personal means and or desire, almost anything can be used. A simple two-bulb shop light can work wonders across a four foot long tank. Two such units fit nicely over a 55 or 75 gallon tank and can provide very good light for most plants. As your experience and interests increase, better lighting can be purchased to replace and/or retrofit your previous setup. See the [LIGHTING](#) section for further comments and a bulb comparison chart.

N

eed to fix link.