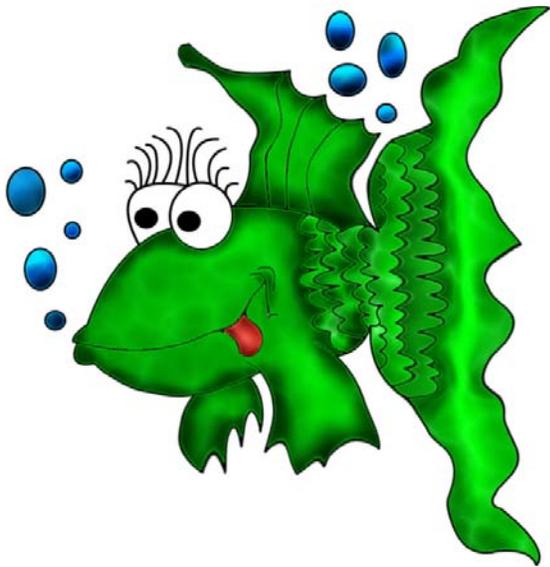


# Fish and Aquarium Set-up

*Thank you for purchasing your fish at Animal City, a family owned business that has been serving Connecticut for over 70 years. Keeping tropical fish is a wonderful hobby. New fish-keepers are often overwhelmed by all of the information and theories on how to best keep their fish. This handout is intended to make the hobby as simple as possibly for beginners. It offers selected strategies for maintaining a healthy aquarium.*

## **Basic Setup**

First, rinse out your tank and gravel. Use only hot water. Do not use soap or detergents. Tanks rarely need to be sterilized, but if it is absolutely necessary a half a cup of bleach can be used to sterilize a 30-gallon aquarium. Find a suitable spot. **Never** place a tank in an area where it will receive direct sunlight, as this will result in algae problems. Rinse the gravel using fresh tap water and place it in the tank.



Add room temperature water to a height where you can no longer see the water line at the top of the tank, but no higher than a half an inch below the lip of the frame around the top of the tank. The water now must be conditioned using a chlorine remover before you add fish. Adjust your

heater so that a suitable water temperature is achieved. A good temperature for tropical fish is between 74 and 78 degrees Fahrenheit. Goldfish do not need a heated aquarium.

## **“Cycling” the Tank**

It is best to “cycle” your aquarium before adding the fish you intend to keep as your pets. Cycling refers to the process by which the aquarium develops a large load of friendly bacteria called nitrosomona. This friendly bacteria converts highly toxic ammonia, produced by the fish, into less toxic nitrite. Nitrite is converted into nitrate by another bacteria called nitrobacter. Nitrate is the least harmful chemical produced, but still must be removed from the tank. This is done by regular water changes. Aquatic plants will also remove nitrates. New aquariums do not have these nitrifying bacteria and ammonia can spike to toxic levels very quickly. Once organic processes start taking place in the tank, it takes anywhere from 4-8 weeks of cycling for the tank to develop a sufficient load of nitrifying bacteria to serve as your biological filter. Adding a large load of fish to an un-cycled fish tank often results in a disaster and a very discouraged hobbyist.

There are many schools of thought on how to cycle an aquarium. One of the simplest and least expensive ways to do this is to add goldfish and allow them to live in the tank for 4-8 weeks. Test the water regularly using an over the counter test kit and watch for an ammonia spike. Eventually these high ammonia levels will come down. Once they have returned to normal your tank is cycled and ready for fish. It is possible that some of the goldfish will die in the process. To minimize this risk, you should avoid overfeeding and adding additional fish until the process is complete.

### **Selecting and Adding Fish**

There are hundreds of varieties of tropical fish that can be added to your tank. Talk to a staff member to help you decide which fish you would like to keep. The decision will be based on many factors including: your goals, cost, fish compatibility, and maintenance. When you add the fish, be sure to allow them to float in the bags on top of the water for about ten minutes to adjust to the water temperature.

### **Maintenance:**

This is another area that has many schools of thought. A good rule of thumb is to do a 25% water change once a month. (Note: Adding water due to evaporation is not a water change.) Some people like to change water more frequently. Your fish will not complain. Some people keep fish and plants in such a way so that they only have to change water once every three to six months. There is no "right" way to do this. One thing that everybody agrees on is that it is never good to change all of your water

at once, as this is stressful for the fish and disrupts the natural biological filtration.

### **Top Killers of Fish:**

- 1. *Failing to properly cycle your tank:*** Adding too many fish before the tank is cycled will result in many dead fish and a very discouraged hobbyist. Do not make this mistake
- 2. *Overfeeding your fish:*** When the food decomposes it produces excess ammonia, which is toxic to your fish. You can usually tell if the tank has been overfed because the water will be cloudy. A 25% water change and 2-3 days without food will solve your problem.
- 3. *Changing all of your water at once:*** The only time you would do this is if you are moving your tank. Even then, you still want to save as much water as possible.
- 4. *Pollutants:*** Be careful that foreign chemicals never get into your tank. Tanks should be covered to help prevent this. If you have company, be wary of guests that think your fish might like a drink or a snack. They will not like it.
- 5. *Disease:***
  - a. *Ick:*** This is one of the most common diseases. Ick is a parasite that attacks your fish. Outbreaks often occur when the fish are stressed and the water is not warm enough. The most obvious sign of ick is white spots that look like salt on the fish's body. Other signs are pinched fins, and scratching on the gravel. Ick is easy to cure by increasing the water temperature and adding an appropriate medication. Some medicines have ingredients that are harmful to certain fish and plants so it is best to ask what should be used.

**b. Fungus:** There are many different types of fungus. Some look like fuzz growing on the fish. Others make your fish's tail and fins look like they are being eaten away. Some make the fish's eyes cloudy and others make their jaws lock. Fungus is usually cured easily with a water change and an antibiotic such as *penicillin*. One downside of antibiotics is that they also kill your beneficial bacteria so you will want to monitor ammonia levels after treatment.

**c. Bacterial Infections:** This is very common in goldfish. A symptom of a bacterial infection is hemorrhaging marks on the body. The infection is usually caused by pure water quality. A 25% water change and a dose of *nitrofurazone* will usually cure this disease.

### Helpful Knowledge

**Milky or Cloudy Water:** overfeeding usually causes this. Simply stop feeding all together for two to three days and your water will clear up. New tanks are often cloudy because the gravel has not completely settled.

**Green Water:** an algae bloom causes this. It is usually harmless to your fish. One successful way of getting rid of it is called the "blackout method". Cover your tank with a blanket and keep the lights off for about ten days. You can turn the light on for about 15 minutes a day to feed your fish.

**Yellow Water:** Driftwood can stain your water yellow. Soaking driftwood for a few days before putting it in your tank can prevent this. New carbon in your filter will also remove the stain.

**Live Plants:** Live plants are great to keep with many kinds of fish. However, it is not

as simple as dropping in a few plants and watching them grow. Growth depends on three factors: light, carbon dioxide, and nutrients. There are many ways to achieve the right balance of these three factors. The method you use will be determined by your goals, lifestyle, and budget.

**Air Breathers:** Some of our aquatic pets such as snails, crawfish, and crabs breathe air. To keep them from drowning they are shipped with minimal water. In a tank they will find their way to the surface to get air.

**Aggressive Fish:** Some fish are very territorial and the result is aggressive behavior. These fish can be fun and exciting to keep, but will require more knowledge and attention on the part of the fish-keeper. Ill-advised additions will reap havoc in your tank. The hobbyist must accept that there is always a degree of risk in keeping these fish.



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