

Aquarium Essentials Overview

Drs. Foster & Smith Educational Staff

basic



ENJOY SUCCESS

with the
RIGHT EQUIPMENT

Would you like to have an aquarium but don't know what you need to get started? Behind every beautiful aquarium is a properly selected assembly of aquarium equipment. They work together to create a

healthy, thriving aquatic environment. Simplify equipment selection with the following guide. We will help you through equipment selection so you can enjoy the beauty and tranquility of a successful aquarium setup.

FILTER

Your filter is your most important piece of aquarium equipment. [Filters](#) help maintain aquarium water quality by efficiently removing harmful materials from your aquarium.

Without proper filtration, your aquarium will not be able to sustain

life. Your filter should offer three-stage mechanical, chemical, and biological filtration. For convenient filter selection, filters are rated for a particular aquarium size, based on a light-to-average fish load, and have a gallon-per-hour (gph) rating. The gph rating determines how many gallons of aquarium water pass through the filter per hour. In general, the filter should turn over the total water volume at least three to five times an hour. For example, a 20-gallon aquarium should be equipped with a filter rated at least 60-100 gph. The [Penguin BIO-Wheel Series](#) are excellent filters that provide efficient biological filtration.

What is the easiest type of aquarium to set up & maintain?

A: The best bet for a beginner is the freshwater community aquarium. You'll find many colorful and hardy tropical fish that help create a lively and easy-to-care for aquarium.

HEATER

Stable water temperature is necessary for the health of your aquarium system. Aquarium heater manufacturers include suggested aquarium size for each [heater](#). But as a general rule, you will need a heater that provides approximately 3 to 5 watts for each aquarium gallon. Therefore, a 50-watt heater will suffice for aquariums between 10 to 15 gallons. The [Eheim Jager Thermostat Heater](#) is a great choice for accurate and reliable performance. In addition to a heater, a thermometer such as the [ATI Thermometer](#) is necessary for monitoring water temperature. Better yet, consider the [Coralife Digital Thermometer](#) for convenient and easy-to-read daily monitoring of aquarium water temperature.



LIGHTING

Aquarium [lighting](#) serves two fundamental purposes. It illuminates the aquarium for your aesthetic enjoyment of the inhabitants and decorations and provides functional light crucial for photosynthetic life in the aquarium. In general, a fish-only community aquarium requires 1 to 2 watts of lighting per gallon. For example, a 30-watt, [36" fluorescent light fixture](#) is appropriate for aquariums from 15-30 gallons. If you plan to have plants, you'll need to use a light fixture that provides 2 to 5 watts of lighting per gallon.

CHLORINE REMOVER

Most tap water is not suitable for aquarium use without the addition of aquarium [water conditioners](#). Tap water may contain chlorine, chloramine, or other chemicals harmful to aquarium fish. Before tap water is used for aquarium purposes, condition it with a chlorine or chloramine remover like [Drs. Foster and Smith Chlorine Neutralizer](#).

TEST KITS

[Test Kits](#) are essential for monitoring important aquarium water parameters such as pH, ammonia, and nitrite. Regular routine testing lets you know if the aquarium water is within an acceptable range for healthy aquarium inhabitants. Test strips like the [Tetra EasyStrips™ Aquarium Test Strips](#) measure multiple water parameters to provide fast and convenient test results for the beginning hobbyist.



SUBSTRATE AND DECORATIONS

In addition to decorative benefits, aquarium [substrate](#) assists aquarium filtration by providing microorganisms and beneficial bacteria a place to colonize. Establish a 1-2 inch layer of substrate or gravel in the aquarium for best results. For a 1 inch bed, you will need roughly 1 lb of aquarium substrate per gallon or 2 lbs per gallon for a 2 inch bed. For freshwater community aquariums, consider decorative,

non-buffering substrate made of non-reacting material to minimize pH fluctuation. Don't forget [decorations](#) such as [driftwood](#), [sunken ships](#), [artificial coral](#), and more, to personalize and add the finishing touches to your aquarium.

THE FRESHWATER COMMUNITY AQUARIUM		
AQUARIUM ESSENTIAL	WHY YOU NEED IT	WHAT IT DOES
Filter	For water purity and quality	Takes out visible particles, breaks down toxic substances, and removes harmful chemicals in aquariums
Heater	To stabilize water temperature for the health of fish	Warms water to maintain water temperatures preferred by tropical fish
Thermometer	To monitor water temperature and heater accuracy	"At a glance" temperature readings for convenient monitoring
Lighting	For viewing aquarium inhabitants or for healthy live plants	Brings out extraordinary colors in the aquarium and facilitates the growth of live plants
Chlorine & Chloramine Removers	To eliminate harmful chemicals from tap water	Neutralizes chlorine and chloramine to make tap water safe for aquarium use
Test Kits	To monitor water quality	Measures vital water parameters to help maintain ideal water quality
Substrate	For decorative purposes and to help supplement aquarium filtration	Improves the look of your aquarium and provides habitat for beneficial microorganisms
Decorations	Optional, but improves appearance	Gives your aquarium setup personality and enhances the aquarium experience