

Access Hatch & Hatchery Dish Placement Magnifier Lens Hatchery Dish Hatchery Dish Hatchery Dish Thermometer

With Fish In A Jiff [™] you bring these amazing fish back to life in front of your eyes.

Mail in your coupon and you will receive eggs that are in a state of suspended animation direct from our Florida Based Laboratory.

By adding water, you are providing a signal for the eggs to continue developing. Your eggs can hatch in as little as one hour or take up to two days to hatch. We'll show you how to hatch LIVE food for your fish—Then watch your fish grow to full size in a few months.

What's Included:

- 1. Coupon for rapid hatch fish eggs, brine shrimp eggs, limestone and fish food. You may also request eggs online at Toyops.com
- 2. Space age tank with observatory
- 3. Hatching dish for brine shrimp
- 4. Pipette
- 5. Thermometer
- 6. Magnifying glass

Note: If anything is missing you may email us at customerservice@toyops.com, or write us at Toyops, P.O.Box 11369, Pensacola, FL. 32524

SPACE AGE TANK & OBSERVATORY

> Dispose of all plastic bags immediately after use.

WHAT YOU NEED...

You need a desk lamp and Natural Bottled Spring Water (2 gallons). Read the small print on the side panel of the water bottle to insure it is not treated by deionization, reverse osmosis, or distillation. Avoid mineral water, carbonated water and tap water. **Use Betta Fish Bottled Water available at Pet Superstores - works great.**

Fish growth and health depend on: USING THE RIGHT WATER PROVIDING THE RIGHT LIGHT MAINTAINING THE RIGHT TEMPERATURE FEEDING THE RIGHT AMOUNT KEEPING TANK WATER CLEAN



How Killifish exist in their natural environment

For children ages 8 and up. Adult supervision required for children under 10. NOT SUITABLE FOR CHILDREN UNDER THREE YEARS.

THIS IS A LIVE PET

PRODUCT

Welcome to the Wild World Of Fish in a Jiff!

Just add water and watch your rapid hatch killifish eggs hatch and grow.

Using computer technology to simulate the temporary pond habitat of the exotic African and South American annual killifish (Teleostei: Cyprinodontidae), scientists at Toyops have discovered the secret of suspended animation that has allowed the eggs of these fascinating jumping fish to withstand months and even years out of water. This discovery is so amazing that teachers chose killifish grown in our laboratories for two NASA-sponsored studies aboard the Space Shuttle. The coverage has included such media outlets as Fox News, Eyewitness News, MTV, and BBC, to name a few.

News, MTV, and BBC, to name a few. Killifish were first discovered by a 19th-century German explorer traveling through Africa. He noticed, to his amazement, these dynamic fish seemed to miraculously appear in ponds newly created by heavy rains following long periods of drought.

It took scientists many hours of observation to discover why these fish were magically appearing in long dried-up ponds. As it turns out; killifish have developed a unique life cycle that allows them to survive the seasonal drying up of the temporary ponds in which they live. When the pond-waters evaporate, the adults and young die off, but the eggs survive by entering a state of suspended animation or diapause (DYE-uh-pawse). Once rain fills the
Temperate Climate
Drought
Wet Season

Killifish flourish and reproduce
Killifish eggs enter state of "diapause"
Killifish eggs emerge from "diapause" and come back

Image: Climate of the state of "diapause"
Image: Climate of the state of the stat

ponds again, the eggs are triggered to hatch (see diagram to the right).

Step 1 Order Your Rapid Grow Fish Eggs

Fill in enclosed coupon or redeem online at <u>www.toyops.com</u>. Please include phone number and email so we may contact you when your eggs are shipped. Enclose \$9.95 for Spring/Summer shipping and handling (when temperatures are over 60° F). Winter/Fall shipping requires a heat pack and additional postage. Please include \$14.95 for Winter/Fall shipments (temperatures below 60° F)

WHEN WILL YOU GET YOUR EGGS AND FOOD?

In spring and summer your estimated time for shipment is 2-4 weeks. Your eggs are sensitive to cold temperatures below 60° F. In the northern states you can

expect 4-10 weeks for fall/winter shipments. In southern states shipping takes place in 2-4 weeks. We monitor temperature and ship immediately when temperatures permit. A heat pack may accompany your kit and should be discarded.

Important: Your eggs are sensitive to extreme heat and cold. If you are not home to receive your eggs, have them shipped to an address where someone can receive them or have your postal carrier hold the eggs at the post office.

If you can't wait for your eggs we can rush them by next day air for \$24.95. You must include your phone number for this service. Keep eggs between 74°F and 81°F until hatched. Hatch within 7 days.

STEP 2 Set Up Your Tank Before Your Eggs Arrive

If you like, you can add natural sand or gravel at this time. Be sure to soak the gravel or sand for a few hours to insure it is clean prior to adding to the tank. Add sand or gravel to a bowl and cover with spring water. Pour off rinse water and then add sand or gravel to the tank. We strongly suggest the addition of aquatic plants and after the fish hatch, a snail. This will help build a natural cycle.

BLUE THUMB DIRECTIONS FOR HATCHING AND RAISING FISH

Selecting the appropriate water is essential for hatching and growing fish. Use water that is labeled Natural Spring Water. Bottled water for Betta Fish is available at Pet Supermarkets and Amazon. It works well. **DO NOT** use mineral water, tap water, carbonated water or highly purified water. Read the small print and DO NOT use the water if labeled as purified by distillation, reverse osmosis or deionization. This processed water will prevent fish from hatching. The water must contain calcium. There are many other bottled Natural Spring waters that will grow fish as well.

STEP 3: Preparing Your Tank – Check Tank For Damage

First insure the cap is screwed on the tank's drain port. Snap both legs onto the pegs found on the tank bottom. Each side is slightly different than the other. Then fill the tank with tap water and inspect for any leaks. Let the tank sit filled for several hours to insure the end seals are not leaking. Place on a piece of paper so leaks are obvious, in a place that will not be affected by water, should a leak be present. Even though leaks are rare, we are taking this precaution since tanks could have been damaged during shipping. Do not place your tank on or near furniture that can't tolerate water.

Once you are satisfied the tank does not leak, unscrew drain cap and pour out all the tap water. Rinse the tank extremely well with a few cups of bottled natural spring water. Discard rinse water and place tank in a warm and well lit area (preferably in both artificial and natural light). Fill tank 3/4 full with bottled natural spring water. Rinse the observation station with tap water and dry with a paper towel. Insert the two cups that comprise the

observation station into the appropriate opening of the tank, in the "open" position (two holes lined up). Snap your magnifying lens into place. Add two limestones to the tank and add 2 limestones to your bottled water.

Peel off backing of the thermometer and stick it on the outside of your tank (either end is preferred). You may also leave the backing on and determine water temperature by briefly dipping the thermometer in the water (less than 5 seconds). Blot the thermometer dry when finished. You must maintain a water temperature between 74°F and 81°F (23°C and 27°C).

PREPARING YOUR DISH

Rinse your hatching dish with spring water and dry with a paper towel prior to use. (DON'T USE ANY SOAP or TAP WATER). Place the dish in the center hole of the space age tank. Fill the dish 3/4 full with bottled natural spring water.

STEP 4 How To Hatch And Grow Fish And Live Brine Shrimp As Food

COLD WEATHER: Place a 60 to 100 watt incandescent lamp 4 to 10 inches over the center of your tank or dish. Leave the light on 24 hours a day if required to warm the water to the appropriate temperature range of

74°F - 81°F. Give the fish a dark resting area at night by covering half the tank with aluminum foil.

HOT WEATHER: To avoid overheating the tank, use a cooler fluorescent light or keep the dish in indirect sunlight. Leave the light on for at least 13 hours each day.

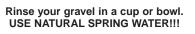
WARNING: Your Fish will not hatch and grow if:

- 1. Water is labeled distilled, reverse osmosis, deionized, mineral, tap or carbonated.
- 2. Water temperature either day or night falls below 74°F (22°C).
- 3. Light is not adequate.

HATCHING YOUR BRINE SHRIMP

Now that the aquarium water has aged for a few days, has maintained a temperature above 74°F and is placed in adequate light, it is time to hatch your brine shrimp eggs for food. The brine shrimp that you will feed to your fish take 24-48 hours to hatch. If you hatch the brine shrimp a day prior to adding the fish eggs, you will have live food ready to feed your baby fish. Shake your salt and brine shrimp mix that you received in the mail. Add 34 of a teaspoon of this mixture to the center of your filled hatching dish. Using your pipette, stir the salts very well, until dissolved. Do not move or shake the tank once the eggs are introduced, as they may get stuck on the side of the dish. The bag of hatch mix included can grow brine shrimp 5 times.

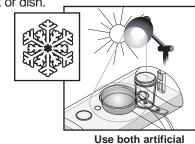
SPRING/SUMMER 2-4 weeks FALL/WINTER 4-10 weeks NORTHERN STATES SHIPMENT TIMES SOUTHERN STATES FALL/WINTER 2-4 weeks



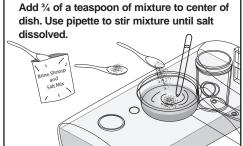




LEAKS



and natural light





HATCHING YOUR FISH

Now that you have started to hatch your brine shrimp (at least 10 hours earlier), it is time to hatch your baby fish. It is best to hatch the fish eggs as soon as possible. They expire after 10 days. Please keep them in an environment with a moderate temperature of 74°F- 81°F. They do not tolerate extreme heat and cold. Remove your egg dish or bag out of the insulated package in which they arrived. Open and pour the contents into the observation station, soil and all. The black material is heat treated peat moss. Once you have poured the soil and fish egg mix into the observation station, you can rinse out the bag or dish with tank water and pour this water into the station to insure all eggs were removed. The eggs are clear and if you look carefully using your magnifying glass you may be able to see them.

Your fish eggs will begin to hatch in as little as one hour and continue to hatch over a 3 day period. The observation station should remain in the open position even if the soil escapes into the tank. As the fish hatch they tend to sit on top of the soil for the first day or two, then they will begin to freely swim about the aquarium. Look carefully after a few hours and again the next day. Count your hatchlings. You should hatch 2-3 fish.

STEP 5 Feeding Your Fish Live Brine Shrimp

You can begin feeding your fish only after your fish and brine shrimp eggs (after 24-48 hours) have hatched. Brine shrimp are attracted to light. This is called positive phototaxis. Use your magnifying glass to determine if the live brine shrimp are freely swimming about. The egg shell should completely detach from the newly hatched shrimp. The egg shells are dark brown and a newly hatched brine shrimp will be orange in color. You should find the hatched brine shrimp moving up and down and they will concentrate in the hatching dish, closest to the light source. Use your pipette and remove 10-20 live brine shrimp with as little water as possible, (1-2 drops) from the hatching dish. Drip the shrimp through the small feeding hole on top of the tank, and into the observation station to make the shrimp available to all hatched fish throughout the tank. Insure the shrimp are close enough to the baby fish so they can be seen. They only eat what they can see. Do your best not to feed too many brine shrimp eggs or egg shells to your fish. They only like the live shrimp for food.

Feed your fish 2-3 times daily, insuring not to put too much salty brine water in your tank. Do not feed too many live brine shrimp as uneaten shrimp will die in the fresh water tank and foul the water. You can use your pipette or a turkey baster to remove any excess food or debris on the tank bottom. If you add an aquatic plant, aquarium gravel and one or two snails, your water and tank will remain much cleaner. The plants will add oxygen to the water and the snails will eat left-over food that would otherwise rot.

A fish is full when you can see the little belly protrude out. It is hungry when the belly is flat and starving if the belly curves up.

You should discard your baby brine shrimp every 2-3 days and hatch a new batch immediately to insure you have a fresh supply for your fish. Rinse the dish between

hatches and set up as before. If your brine shrimp failed to hatch you may use the other baby food provided.

FEEDING OTHER FISH FOOD

By day 5 you can begin adding a very, very small amount of dry fish food provided, once daily to their diet. Sprinkle only a tiny bit (size of pin head) for each fish observed. Continue to feed live brine shrimp once or twice daily, but never at the same time you add another food type. If you look carefully you can tell if your fish is full by inspecting the belly. The belly will swell up when full. Remove any excess food observed on tank bottom.

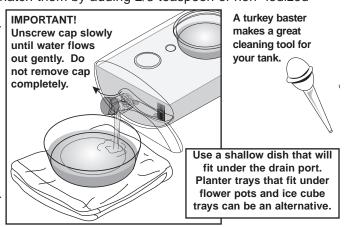
After your fish are 2-3 weeks old, they will enjoy tiny bits of raw or cooked fish or shrimp that are intended for human consumption. Also, most pet stores have freeze dried blood worms, frozen worms, fish and shrimp and small micro-fish pellet food, all which will improve the growth rate of your fish. The rule-of-thumb is that a fish will eat what can fit into its mouth. Your fish will fare better with several light feedings daily, rather than a large portion all at once. Remember to remove all excess food that is not eaten after 30 minutes. We strongly suggest adding gravel, a small aquatic plant and a snail to help keep the tank clean.

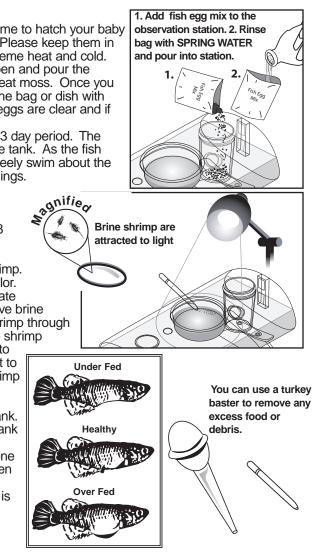
As the fish grow, increase the variety and amount of food you feed them. You can stop feeding live brine shrimp after your brine shrimp eggs run out, however your fish will grow faster if you continue to feed brine shrimp a few times a week. Frozen adult brine shrimp, fish or worms and freeze dried shrimp and worms are an easier alternative to hatching live brine shrimp. If you buy additional brine shrimp eggs (available at most pet stores), you can hatch them by adding 2/3 teaspoon of non- iodized

table salt, and 1/8th teaspoon of epsom salt to your dish. Add spring water and sprinkle in a small amount (2-3 pinches) of brine shrimp eggs. Stir and handle as before. Remember to avoid placing too much salty brine shrimp water in with your fish. Stop using live brine shrimp after 4 or 5 weeks. Feed a variety of pet fish foods twice daily until the fish are full. Remove excess food within 30 minutes after feeding. Your goal is to feed just enough to fill your fish.

STEP 6 Keeping Your Water Clean

You should remove 1/3 of the tank's water after a week and replace it with fresh bottled natural spring water of the same type at the same temperature as your tank. You can use a turkey baster, or scoop out 1/3 of the water. If an adult is present to help, you can place a bowl under the tank drain port and tank body to catch the water as it drains. Unscrew the tank's end cap (do not remove it completely) very slowly and only partially until the water flows out extremely slow.





If your tank is situated on furniture, move the tank to a sink or toilet. Fill up tank with fresh bottled natural spring water of the same type at the same temperature. This should be done once a week and repeated more frequently if the water gets cloudy. If you added gravel, plants and a couple of small snails, the water changes may be reduced as long as you don't overfeed. Continue to use your pipette or turkey baster to remove accumulated debris from the tank bottom.

The fish will grow out of your space age tank eventually. They will grow larger as soon as they are transferred to a larger aquarium. Adult fish can reach 4 inches in length. Remember they are called jumping Killifish for a reason. Never fill a tank to the top, and cover if possible as they may jump out. They are less likely to jump if they have hiding spots (plants) in the aquarium.

To move fish to a larger aquarium, first fill the new aquarium with identical bottled natural spring water. Add gravel, filters etc. that have first been rinsed. Let the filled aquarium sit for a few days prior to adding fish to the new aquarium. The aquarium should be kept at the same temperature as your space age tank. Use the new aquarium water and perform two water changes on your space age tank. Pour out 1/3 of your tank water into a toilet or sink. Replace with water from your new aquarium. Wait 10 minutes and pour 1/3 of your space age tank water into the aquarium. Replace with aquarium water. After 5 minutes you can

age tank water into the aquarium. Replace with aquarium water. After 5 minutes you can open your drain cap over the aquarium and pour the tank water back into the new aquarium. All of this provides a gentle acclimation to the water in the new aquarium for your fish. Never remove and replace more than 1/3 of the volume of the tank water at a time, as this could shock the fish. When you are ready, catch your fish with a small net and move them to the new aquarium. If your aquarium is large enough, you may float your space age tank on the surface of your aquarium and turn it over to release the fish into their new home.

MAINTAINING YOUR NEW AQUARIUM

Be sure to continue water changes each week for the first 4-6 weeks. Any filter system relies on beneficial bacteria to help filter the water and it often takes up to 6 weeks for bacteria to get established on the filter material. Beneficial bacteria convert toxic waste such as ammonia to less toxic nitrate that is then used by aquatic plants as a nitrogen food source.

WASH HANDS AFTER CLEANING YOUR AQUARIUM OR HANDLING PET FOODS

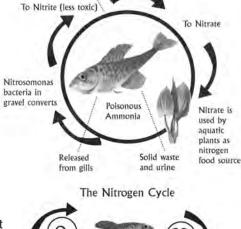


ADDING PLANTS

You should add live plants to your aquarium that both you and your fish will enjoy! We suggest an aquatic fern called Aponogeton (Ah-PAHN-no-GEE-tun) available from your local pet store. There are many other aquatic plants to select from at your local pet store.

Plants help supply Oxygen that your fish needs to breathe and love the carbon dioxide that your fish (and you) give off. Plants need plenty of light so make sure your aquarium is placed near a window or has its own light.





Oxygen Cycle

Nitrobacter bacteria in gravel converts

Other Facts

- If you add a few blades of dried grass (rinse first) along with a small bit of carrot to your tank, you will promote the growth of microorganisms that help purify the water and act as a food source for the 1-3 day old fish.
- If your brine shrimp eggs don't hatch, feed dry food that came with your eggs. Then try to hatch the brine shrimp again.
- You should expect 2-5 fish. If the eggs were left in the cold they will not hatch.
- To grow fish fast, use a variety of pet fish foods available at your local pet store.
- To keep your fish happy and healthy it is suggested you add gravel, aquatic plants and snails to your tank. Don't add the snails until you hatch your fish or they may eat the eggs.
- Use your locking observatory to trap the fish for easy up-close observation with your magnifying glass.

For Technical Updates and more information visit us at www.toyops.com and the www.diapausefoundation.org

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