Let’s Get It Started!

THE MAKING OF NATURE AQUARIUM™

ADA BEGINNER’S GUIDEBOOK
Let’s Get It Started!
Nature Aquarium

Nature Aquarium expresses natural scenery by placing driftwood and stones and planting aquatic plants in an aquarium tank. In this type of aquarium, an environment resembling a natural ecosystem is created and aquatic plants, fish and microorganisms coexist in prosperity. Mother Nature teaches us everything. Let’s start Nature Aquarium that brings nature close to you.
The Making of Nature Aquarium

Setting Up a Tank and Substrate

1. Install the tank on an aquarium cabinet

Be sure to install the tank on a cabinet specifically designed for aquarium tank so that you can use the tank safely for a long time. Use Garden Mat for enhanced earthquake protection.

2. Sprinkle substrate additives on the bottom of the tank

To promote the growth of beneficial bacteria and keep a good substrate environment, evenly sprinkle substrate additives such as Bacter 100, Clear Super and Tourmaline BC.

3. Spread Power Sand and flatten the surface

Spread Power Sand on top of the substrate additives. Power Sand supplies organic nutrients that nourish microorganisms and prevents hardening of substrate that commonly takes place during long-term maintenance of aquarium.

4. Spread Aqua Soil-Amazonia

Containing rich natural organic compounds, Amazonia is ideal substrate soil for Nature Aquarium, which effectively promotes the growth of plants. Pour Amazonia in the aquarium directly from the bag.

You need to select a tank carefully and install it in a safe manner, because you cannot replace the tank easily once it has been set up. Meanwhile, the substrate of Nature Aquarium is very important for the healthy growth of aquatic plants and long-term maintenance of aquascape. Build the substrate securely with great care.
Choosing Layout Materials and Making Composition

1. Choose layout materials suitable for the tank size
Driftwood (Slim Wood) and Sansui Stone were chosen for this layout. Driftwood having the size suitable for placing a few pieces together in a tank is ideal for achieving a good balance.

2. Arrange driftwood considering a good balance
In this layout, the driftwood are arranged based on the most basic concave composition. Pay attention to the orientations and angles of each branch to achieve a good balance.

To avoid the composition from becoming symmetrical, place driftwood pieces at 2/3 ratio between right and left sides. This geometric proportion is aesthetically pleasing to the eye. In concave composition, the perspective in aquascape can be expressed if driftwood are arranged into a reverse V shape when viewed from above.

In Nature Aquarium, the composition which serves as the framework of the layout is made using aquatic plants as well as composition materials such as driftwood and stone. The composition is an important factor that decides the quality of the aquascape. There are three types of basic compositions, namely concave, convex and triangular compositions.

3. Secure a space for planting aquatic plants
Securing a planting space is an important point during the arrangement of composition materials such as driftwood and stone. Place the composition materials while considering the planting space in foreground, mid-ground and background. Mid-ground is the section consisting of driftwood and the space around them.
4. Fix Willow Moss on driftwood

Attaching moss to driftwood can conceal unnatural portions such as cut sections of driftwood.

Once you have decided on how to arrange the driftwood, remove them from the tank and fix Willow Moss on them.

Spread moss thinly on the dampened driftwood surface and securely fix with Moss Cotton.

A point here is to cut off the protruding mosses after fixing mosses on driftwood.

5. Put driftwood back into the tank

Put back the moss-covered driftwood into the tank. This process is made easy if you record the driftwood arrangement using your smartphone, etc., before removing driftwood from the tank.

6. Hold driftwood in place with stones

Hold the driftwood in place by placing stones around the wood. These stones will also add a natural feel to the layout.

Place the stones in such a way that they look natural. It is convenient if some small stones are prepared beforehand.

7. Envision the arrangement of aquatic plants

Once the driftwood and stones are placed in the tank, the next thing to think is how to arrange aquatic plants. In the areas where the substrate is uncovered, you can plant foreground plants, Cryptocoryne, stem plants, and others. On the other hand, in the mid-ground where driftwood and stones are placed, only epiphytic plants such as ferns and Anubias can be planted. Aquatic plants should be planted in such a way that their heights will be progressively taller in the order of “foreground → mid-ground → background”.

8. Completion of composition framework

The making of composition framework is completed once the moss-wrapped driftwood are put back into the tank and Sanei Stones are placed around the driftwood. Check the final balance of the layout.
Preparation and Procedures of Planting

1. Preparations before planting

Before planting aquatic plants, pour some water to the substrate until the foreground is barely submerged for making planting easy with tweezers.

BIO MIKUSHUSA NO MORI used for this layout

Before use, remove the plants from the cup and lightly wash off the agar media under water.

BIO Glassostigma

BIO Cryptocoryne
Wendtii ‘Green Geckos’

BIO Cryptocoryneazineadii

Wabi-kusa used for this layout

Wabi-kusa grow healthily in pesticide-free environments can be used just by placing them in an aquarium.


Wabi-kusa in the background

Place wabi-kusa in the background. The substrate of the background is higher than other sections.

Planting mid-ground plants

Plant Cryptocoryne firmly in the mid-ground using Pro-Pincesse Grip type 1.

Planting foreground plants

Plant Glassostigma in the foreground. Simple Pincettes are a powerful tool for this planting.

2. Plant mid-ground and foreground plants

Aquatic plants are basically planted in the order of mid-ground, foreground, background and epiphytic plants. For this layout, the planting started with Cryptocoryne beside the driftwood in the mid-ground.

Planting mid-ground plants

Plant Cryptocoryne firmly in the mid-ground using Pro-Pincesse Grip type 1.

Planting foreground plants

Plant Glassostigma in the foreground. Simple Pincettes are a powerful tool for this planting.

3. Place wabi-kusa in the background

Tall aquatic plants such as stem plants and the plants having tape-like leaves are suitable to be planted in the background. In this layout, single-type stem plant wabi-kusa was used for the background.

Place wabi-kusa in the background. The substrate of the background is higher than other sections.

Place more wabi-kusa and plant some striking red stem plants on the right side of the layout where the focal point of concave composition is located.
4. Preparation of epiphytic plants

Epiphytic aquatic plants such as ferns (Bolbitis and Microsorum) and Anubias are usually attached to stones and driftwood. Besides attaching directly to driftwood, you can fix a bunch of epiphytic plants to small stones to make the arrangement of these plants easier. Cut off the damaged leaves before planting.

In the preparation process, Anubias nana “Petra” and Bolbitis headsi isole used for this layout were fixed on a small stone with Wood Tight.

5. Arrangement of epiphytic plants

Next, attach the epiphytic plants prepared to the composition materials. Layout becomes more stable if Bolbitis is placed between the driftwood pieces while Anubias is placed between driftwood and stone. Epiphytic plants add a natural feel to the layout.

Shade-loving Anubias can grow even in low light environments. This plant is placed in shady gaps between driftwood and stones.

Placing Bolbitis at the joints of driftwood also has an effect of holding arranged driftwood pieces together.

6. Pour water while avoiding the water from becoming cloudy

When all the planting is done, smooth out the substrate in the foreground and pour water into the tank. If the water becomes very turbid, remove all the cloudy water and add clear water. Meanwhile, some driftwood can float out of the substrate. Place a heavy stone on the driftwood and monitor if the wood floats.

Gently pour water so that Aqua Soil surface will not be hollowed.

Adjust the tap water temperature to 23-25°C. Add Chlor-Off to eliminate chlorine residue in tap water.

Once the water is full, scoop out the dust and rubbish on the water surface with a net. In this layout, a stone is temporarily placed on the driftwood on the left side to prevent the wood from floating up.

7. Completion of planting

Top view

When viewed from above, you can see the balance of the plants between front and back, right and left sides. You can also make sure that the areas where Glossostigma and stem plants are planted do not cast a shadow on other aquatic plants and driftwood.

Front view
Setting of Equipment

1. Connect a hose to Lily Pipe

Connect the filter and Lily Pipe using a slightly longer hose rather than a hose having just the right length. The hose length stated in the illustration on the right is the standard length when a 60cm tank and Plain Cabinet are used.

2. Filling the filter media and the order of replacement

Super Jet Filter ES-600 comes with filter media Bio Cube and anthracite. This combination of filter media is suitable for the initial stage of aquarium setup. When the water quality becomes stable, replace the filter media as shown in the right diagram.

3. Installation of CO2 Advanced System

You can start supplying CO2 easily by using CO2 Advanced System including all the equipment and parts necessary for CO2 supply. Note that this example uses additional Clear Stand (optional).

After the planting is completed, install the filter, CO2 system and lighting system. It is important to choose high quality equipment having capacity suitable for the tank size so that a conducive environment will be stably maintained in the tank for a long time.

4. Install AQUASKY MOON

AQUASKY MOON 601 is a stylish LED lighting system. It can be installed above the aquarium with exclusive acrylic stand and serves as a sophisticated interior decoration item. Lighting hours should be limited to 6-10 hours a day, since longer lighting hours can promote algal growth. With NA Control Timer (optional), you can link the ON/OFF of light and CO2 supply.

The exclusive stand of AQUASKY MOON is compatible with Cube Garden. Its design does not affect the appearance of Lily Pipe.

5. Completion of equipment setup

The Mirror Unit was attached to AQUASKY MOON 601. The entire lineup of ADA Goods is developed out of the common design concept.

You can control CO2 supply according to ON/OFF of the lighting system.
**Maintenance in the Initial Stage of Aquarium Setup**

1. **Observe the aquarium to understand its condition**

   In 2-3 days after the setup of aquarium, the water becomes slightly cloudy or turns a little brownish. This is a common symptom during the initial setup stage and you do not need to worry about it. When this problem occurs, you need to take measures such as water change. Firstly, observe the aquarium carefully to understand its condition.

2. **Measure pH, the basic index of water quality**

   Measure pH, the basic index of water quality, before water change. pH is a numeric scale used to specify the acidity or alkalinity of an aqueous solution (pH 7.0 is neutral). Mildly acidic water (around pH 6.0) is suitable for growing aquatic plants. ADA’s pH Kit is a water quality testing reagent for monitoring the water quality for the aquarium in the initial stage and onwards.

   **Read pH value by referring to the color chart.** The pH reading of this layout was 6.0.

3. **Measure ammonium to understand the water pollution**

   Measure the ammonium (NH₄) level with Pack Checker to know how dirty the water is. With Pack Checker, water quality test is easily done just by drawing some aquarium water into the test kit. A high concentration of ammonium is detected during the initial stage of aquarium. Once the biological filtration starts working, it will decrease.

   **With Pack Checker, ammonium level can be measured just by taking out the string and sucking up aquarium water.**

4. **Water change and application of liquid fertilizers**

   Remove about 1/3 to 1/2 of aquarium water and add new water after eliminating chlorine residue. In winter, add some hot water to the new water to adjust the water temperature to 23-25°C. After water change, add liquid fertilizers to supply potassium and trace elements.

   **After water change, liquid fertilizers were added. 3 pushes each.**

5. **How the aquarium looks like after water change**

   The water clarity is improved and the aquarium looks brighter. Photosynthesis of aquatic plants also becomes more active. Photosynthesis will be further promoted if Brighty K is added to the aquarium.
The Making of Nature Aquarium

Maintenance in Week 1 and Elimination of Algae

1. Eliminate algae inside the tank
Aquarium water easily becomes dirty and algae grow particularly in the initial stage of the aquarium setup (1st week of the aquarium). If this problem occurs, do not worry but eliminate algae manually as much as possible.

2. Clean the glassware
Clean the glassware such as Pollen Glass by soaking in Superge, the detergent specifically designed for glassware. If algae grow on Pollen Glass, the air bubbles from the diffusion filter get larger and the CO2 diffusion efficiency decreases.

3. Test the water quality to check the filtration
The ammonium level decreased (0.2mg/l) due to growth of nitrifying bacteria.

Biological filtration starts working around one week after the setup of the aquarium. Test the water quality using Pack Checker and check the filtration performance of the filter.

During the initial stage, brown algae often grow on the aquatic plants and glass surface of the aquarium. In this period when algae actively grow, it is important to eliminate algae in conjunction with water change.

4. Add algae eater to the tank
To control the algal growth, add 3-5 algae eating Oto cinclus sp. and 1-3 Crossochelus siamensis to the tank. At this stage, Cardina japonica should not be added yet as this shrimp is vulnerable to nitrates.

When you purchase fish from a shop, put the plastic bag holding the fish in the aquarium and let it stand uncovered to acclimatize the new fish to the tank temperature.

5. Aquarium after the maintenance in Week 1
The aquarium looks good after algae were eliminated as much as possible and water change was conducted. Wabi-kusa stem plants start growing submerged leaves instead of emersed leaves.
Maintenance in Week 2 and Trimming

1. Cut the tall stem plants

Stem plants grow very fast and their terminal buds can reach the water surface in about 2 weeks after planting. If overgrown stem plants are left untrimmed, the open space in the planted aquarium will be filled with plant leaves and this can affect the appearance of the layout. Therefore, timely trimming is essential. During the very first trimming, you should cut the stem plants very short according to the lines of the layout materials, keeping the composition in mind.

Cut at a lower part of the plant for the first trimming

The density of stem plants increases through branching out of stems by gradually elevating the trimming position higher up the plant as shown in the illustration on the right. Repeat the trimming to have beautiful clusters of stem plants.

Choosing scissors and post-trimming care

Trimming Scissors Curve type was chosen for this task. After the trimming, scoop and eliminate the small pieces of cut stem plants floating on the water surface.

Aquatic plants in wabi-kusa start growing very fast immediately after they are placed in the tank. If their leaves are about to reach the water surface, trim them in advance to maintain the intended composition. In 2 weeks after the initial setup, you can add Caridina japonica in the tank.

2. Add (10-20) Caridina japonica to the tank

Algae-eating Caridina japonica is very sensitive to water quality and particularly vulnerable to nitrite (NO₂). Before adding this shrimp to the tank, make sure that the nitrifying bacteria have adequately grown and the concentration of nitrite has lowered.

3. 1 week after trimming

Trimmed stem plants started to grow new buds. To form a neat cluster, the protruding stems were cut off. (3 weeks after the aquarium setup)

Adding Green Gain

Stem plants lose their fast-growing terminal buds during trimming and therefore, they stop growing for a while after trimming. Add Green Gain to the tank to stimulate the formation of terminal buds which leads to beautifully grown stem plants.
Introducing Fish and Second Trimming

1. Procedures of introducing fish to the tank without affecting their conditions

To prevent the fish from poking its snout above the water, which is caused by dissolved CO₂, perform aeration by lifting the pipe (outflow) when adding fish to the tank.

Float in the tank to match the water temperature.
If the water temperature in the plastic bag is very different from the aquarium water temperature, float the plastic bag unopened in the tank to match the water temperature.

Acclimate the fish slowly and gently release into the tank.
Open the plastic bag and slowly pour aquarium water to acclimate fish. If the fish looks good, release them slowly into the tank.

2. Aquarium after fish are introduced

Besides aquatic plants, fish is also an essential part of Nature Aquarium. The ecosystem in the aquarium starts functioning only by introducing fish to the tank.

Paracheirodon axelrodi (10)

IHMnothebrycon megalopterus (10)

Carina latia (5)

3. Second trimming of stem plants

It is a classic technique to cut the stem plants at slightly above the previous trimming position. In addition, each stem plant species was cut into different height this time.

The height of the stem plants will be aligned in 2-3 weeks time, and a beautiful cluster will be formed.

4. Cut Willow moss grown on the driftwood

Excessively thick Willow moss leads to heavy atmosphere of the aquascape and deteriorated condition of the plant. You should trim Willow moss before it gets too thick.

The point is to push the blade to the driftwood surface to cut the Willow moss into a thin layer.
7 weeks have passed since the setup of the aquarium. Each aquatic plant thrives and an environment conducive to fish has been established. Fish are swimming merrily between the aquatic plant leaves while showing off their beautiful body colors. Such a sight truly resembles the aquatic environment in nature.

1. Joyful time of feeding fish

The Fish Food AP series is nutrient-rich and highly-digestible fish food. This product also inhibits the growth of algae, a great enemy of healthy growth of aquatic plants. AP Glass enables healthy feeding to fish.

![AP Glass](image1)

With AP Glass, you can feed your fish reliably and joyfully.

1. Fish Food AP-1 Premium
2. Fish Food AP-1
3. AP Glass

2. Nutrient supplementation for making aquatic plants more beautiful

The basic of nutrient supplementation to aquatic plants is to add potassium and trace elements that are easily lacking in the tank. STEP 1-3 containing different amount of trace elements allow nutrient supplementation according to the aquarium environment that changes in each stage of time.

![Nutrient Supplementation](image2)

For a 60cm tank, 3 ml/3 pushes is the optimal amount of each fertilizer to be applied.

1. Green Brightly STEP 1
   First 3 months after initial setup
2. Green Brightly STEP 2
   3 months to 1 year after setup
3. Green Brightly STEP 3
   1 year after setup onwards
4. Brightly K

3. Other daily maintenance

Besides daily feeding and nutrient supplementation, perform periodical maintenance including 1/3 water change once every 1-2 weeks, maintenance of filter media and cleaning of tools and equipment.
Nature Aquarium Goods for 60cm tank

Lastly, this page introduces Nature Aquarium Goods necessary for enjoying Nature Aquarium in a 60cm tank contained in this booklet. All these products have been developed through actual experiences of making Nature Aquarium layouts. Their simple design brings out the beauty of aquascape.

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AQUASKY MOON 601
MIRROR UNIT Set:
- Cube Garden
  W60×D30×H36cm
- Garden Mat
  for W60×D30cm
- Plain Cabinet (Off White)
  W60×D30×H70cm
- CO2 Advanced System (White)
- Clear Stand for CO2 System 74
- Super Jet Filter ES-600
  For 38cm (6)
- LiFi Pipe P-2 Ø13
- Neoprene Pipe V=3 Ø13
- NA Thermometer J
  Ø20WH

Bacter100
Clear Super
Tourmaline BC
Power Sand S
Aqua Soil - Amazania (9 L)
Aqua Soil Powder - Amazania (3.8 L)

Mass Cotton
Wood Tight
Pre-Scissors Spring
Trimming Scissors (Curve type)
Pre-Finettes Grip type L
Finettes L

Sand Flattener
Pro Razer
Green Brightly STEP1 250ml
Green Brightly STEP2 250ml
Green Brightly STEP3 250ml
Brightly-K 250ml

Aqua Conditioner Chio-Off 350ml
pH K
Pack Checker NH4
Pack Checker N2O
Pack Checker NO3
Green Gain 50ml

Fish Food AP-1 70g
Fish Food AP-1 Premium
AP Glass
Superga
Clean Bottle
Spring Washer S

NA Central Timer
CO2 Advanced System White

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