



# NATURE AQUARIUM GUIDE 60

To know Mother Nature is to love her smallest creations.

We recreate the natural eco-system in our aquarium, which leads to a better understanding of the global environment.

ADA



NATURE AQUARIUM GUIDE 60

## Feeling nature in everyday life

Beautiful underwater scenery where fish and aquatic plants create a harmony.

Nature Aquarium is a recreation of an ecosystem structure where plants and organisms relate to each other and coexist in an aquarium tank by learning its methods from nature.

Aquascape created by arranging stones, driftwood and aquatic plants becomes one 'Small Ecosystem', and it leads us to a rich time that makes you think of nature.

Welcome to the world of Nature Aquarium.

# Creation Flowchart

In this section, the standard aquarium tank size of Nature Aquarium, W60cm is the focus, and the process from the aquarium tank installation to layout completion will be introduced.

1

Install an aquarium tank



2

Spread substrate



3

Make a Composition



4

Plant aquatic plants



5

Attach epiphytes



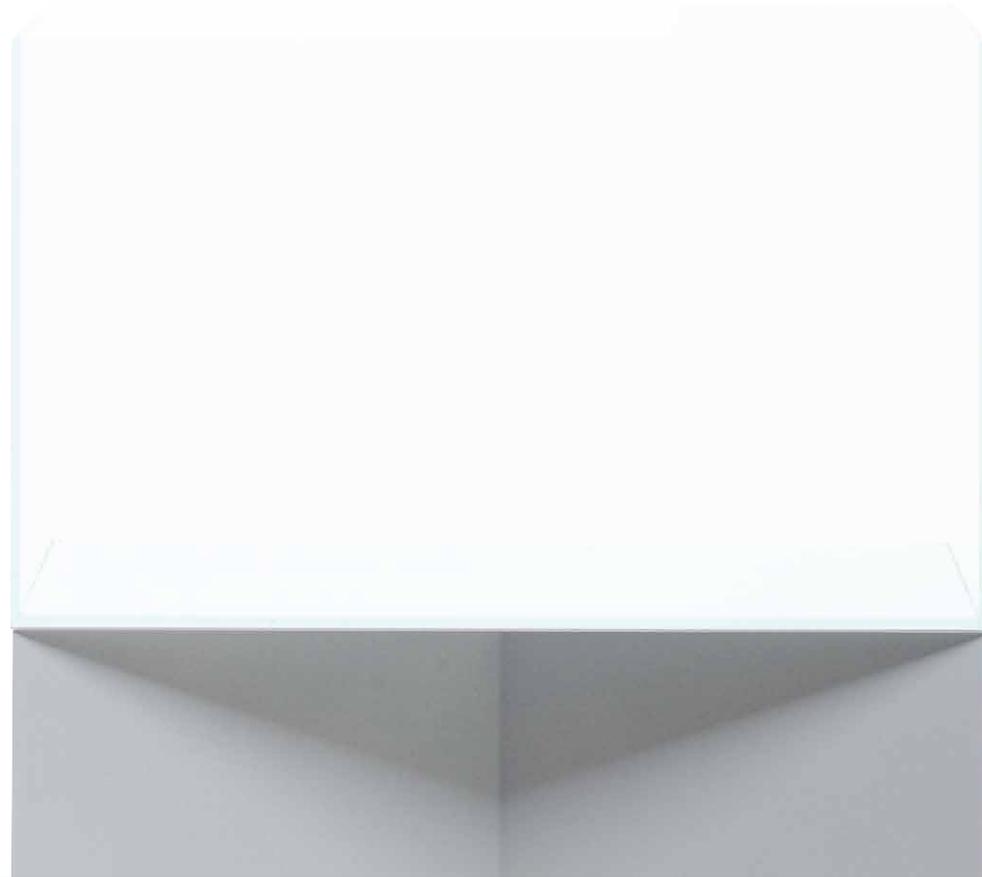
6

Aquascape completed



# 1 Install an aquarium tank

In order to enjoy aquascapes for a long time, safety is essential. Installing an aquarium tank in the right way is the first step in Nature Aquarium.



### Standard W60cm aquarium tank

The size of classic W60xD30xH36(cm) aquarium tank is very popular because there is a wide variety of its related equipment available too. The aquarium tank size is great for those who will start creating layouts in earnest, as well as for experts who want to face one's sensibility and techniques in the limited aquarium tank size.

PROCESS

## 1 Choose where to install an aquarium tank

Place an aquarium tank cabinet in a place where the floor is sufficiently strong, and avoid places exposed to direct sunlight. To secure the power supply necessary for aquarium tank equipment, check the outlet location.



PROCESS

## 2 Install an aquarium tank

Place an aquarium tank on an aquarium tank cabinet, and make sure that it is level. When it is not level, adjust the level by inserting something such as thin wooden plates at the four corners under the aquarium tank cabinet. And by using Garden Mat under the aquarium tank, the Garden Mat absorbs distortion during installation and enhances safety.



### Selectable aquarium tank cabinets

To safely enjoy aquarium tanks for a long time, aquarium tanks must be placed on special aquarium tank cabinets. There is a wide variety of aquarium tank cabinets available for W60cm aquarium tanks.



## 2 Spread substrate

To grow aquatic plants in healthy conditions setting up substrate is important. The beauty of aquascape is supported by the substrate foundation.



### Roles of substrate

Substrate that helps aquatic plants take root easily, and that isn't likely to compact for a long period of time, is desired for Nature Aquarium. Substrate not only supplies nutrients to aquatic plants, but also becomes a foundation to prepare an environment in an aquarium tank while playing a role of a living place for invisible microorganisms.

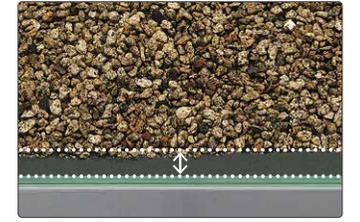
#### PROCESS

### 1 Spread Power Sand and flatten it.

Power Sand consists of rich nutrients, and prevents substrate from compacting during a long term maintenance. Put the Power Sand into the aquarium tank directly from a bag, and flatten the whole Power Sand to make it flat.



Spread a bag of Power Sand Advance S (2L).



If a space of 1cm is left in the front, the finished look will be beautiful.

#### PROCESS

### 2 Sprinkle substrate additives

In order to maintain a healthy environment in an aquarium tank, add substrate additives. Add 3 spoons of each Bacter 100 and Clear Super (a spoon comes with the product), and add 10 spoons of Tourmaline BC as recommended dosages.



Sprinkle the substrate additives evenly.



#### PROCESS

### 3 Add Amazonia Supplement

Amazonia Supplement that comes with Amazonia Ver.2 has a function of enhancing nutrients. A bag of Amazonia Supplement (50mL) for 9L of Amazonia Ver.2 is the guideline for addition.



Add Amazonia Supplement before spreading soil.



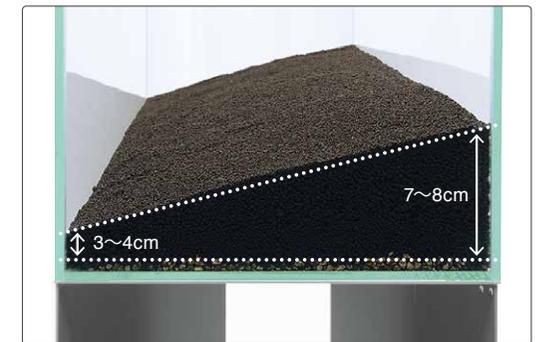
#### PROCESS

### 4 Spread Aqua Soil - Amazonia Ver. 2

Amazonia Ver.2 is made from black soil effective for the growth of aquatic plants, and the water condition becomes more suitable for aquatic plants and fish with the function of the natural soil.



Spread a bag of Aqua Soil - Amazonia Ver.2 (9L).



If an inclination is given from the front to back, it creates a sense of perspective.

# 3 Make a Composition

Makeing a composition with driftwood and stones might be the best part when creating a layout. Develop your imagination by getting inspirations from natural scenery, and create a firm and stable composition.



### Three basic compositions of Nature Aquarium

Variations of Nature Aquarium can be limitless depending on the combinations of substrate, layout materials and aquatic plants. If you are conscious of the basic concave, convex and triangle compositions when arranging layout materials, it becomes easier for you to create a layout, and the layout composition becomes more beautiful and stable.

PROCESS

## 1 Wind moss around driftwood

Firmly attach a thin layer of moss to the surface of driftwood with Moss Cotton. Moss Cotton will melt away by the time when the moss attaches.



Prune Taxiphyllum barbieri that pops out.



Moss Cotton

Pro-Scissors Spring

PROCESS

## 2 Make a composition with stones and driftwood.

A point when making a composition is a balance between the sizes of materials and their placement. Choose the right layout material size for the aquarium tank, and place them while thinking about the whole balance.



While keeping a concave composition in mind, place stones on both sides.



Place pieces of driftwood on top of stones while keeping a good balance.

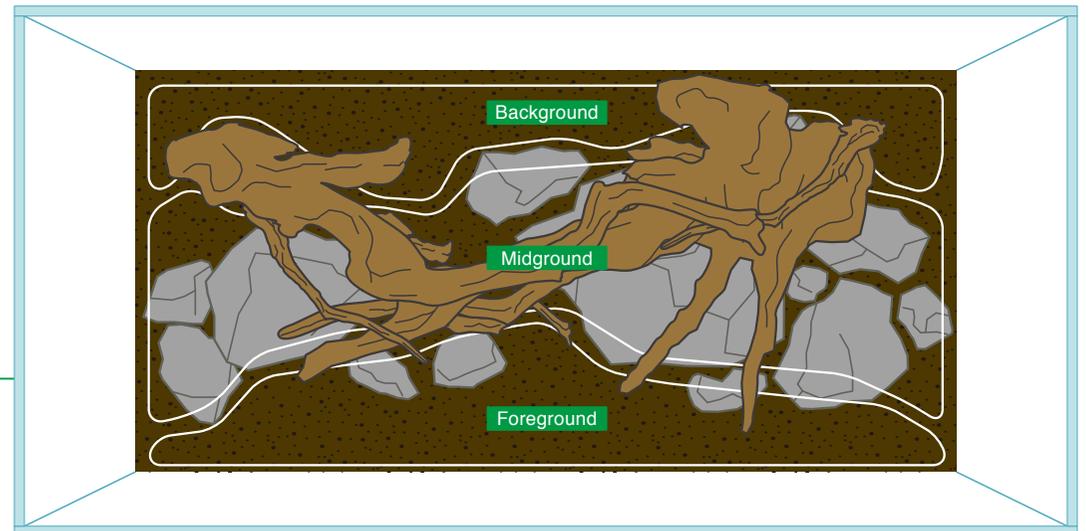


Arrange them while paying attention to their directions and angles.

### Envision how and where to plant aquatic plants

When creating a composition, think about where to plant aquatic plants beforehand. Have a concrete idea of aquatic plants you are going to use while being conscious of all zones, such as foreground, midground and background, starting from the front.

Top



**Foreground** Choose aquatic plants while thinking about impressions of aquatic plants and their heights.

**Midground** It plays a role to give a continuous flow between the foreground and background.

**Background** The whole impression is determined with the balance of shapes and colors of leaves.

# 4 Plant aquatic plants

Choose aquatic plants in accordance with an aquascape you envision.  
Plant aquatic plants carefully with tweezers for aquatic plants.



### Roles of aquatic plants

Nature Aquarium is made up of various interrelationships. Aquatic plants perform photosynthesis and release oxygen in the water, and living creatures use the oxygen to breathe. Aquatic plants can be living places for fish as well as playing a role to purify the water.

PROCESS

## 1 Preparation of aquatic plants to be used

Before planting, prepare aquatic plants. For BIO Mizukusa no Mori, take the aquatic plants out of the cups, and if there is any culture medium left on the plants, lightly rinse it off with water and separate them into small portions.



BIO Mizukusa no Mori Pro-Pinsettes

If they are placed on a plate, it is easier to grasp the total amount.

PROCESS

## 2 Wet the substrate and start planting

If the substrate is wetted until the foreground is lightly submerged in water, it becomes easier for you to plant aquatic plants with tweezers. Plant from the foreground to background, and gradually increase the water level.



Gently sprinkle water by using a shower-head.

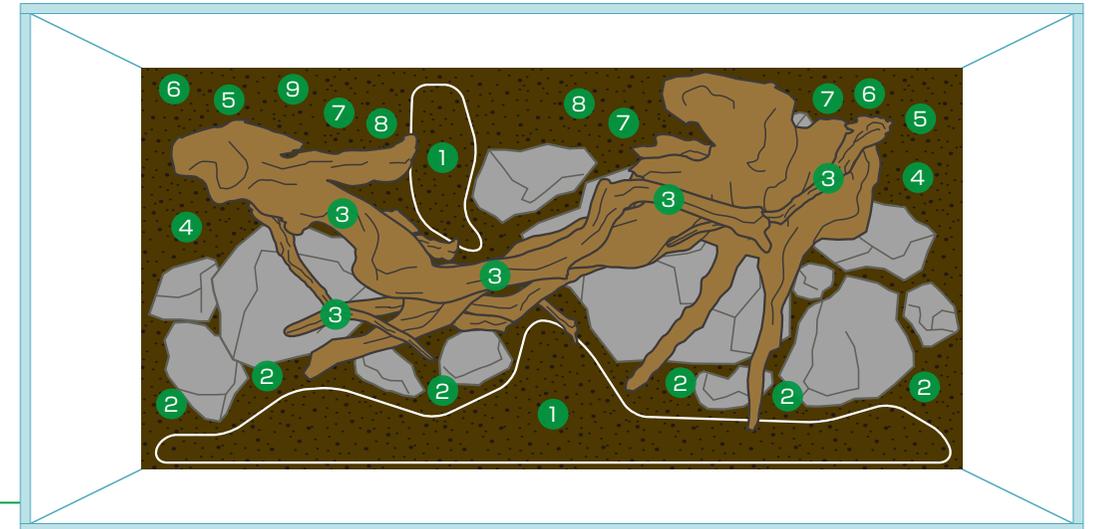
Gently grab the base of aquatic plants with tweezers.

### Plant various types of aquatic plants

Plant in the foreground, midground and background. In addition to BIO Mizukusa no Mori, Wabi-Kusa for the background and Jungle Plants for the midground were planted in this layout.

\*Short aquatic plants are also called foreground plants (1), and they were extensively used from the foreground to background. As a result, an open space was created in the middle of the layout (concave composition).

Top



#### Foreground

1 BIO Mizukusa no Mori *Glossostigma elatinoides*

#### Midground

2 BIO Mizukusa no Mori *Staurogyne repens*

3 BIO Mizukusa no Mori *Taxiphyllum barbieri*

#### Background

4 Wabi-Kusa *Hygrophila polysperma*

5 Wabi-Kusa *Rotala rotundifolia* 'Fujian'

6 BIO Mizukusa no Mori *Rotala macrandra* 'Green'

7 BIO Mizukusa no Mori *Ludwigia repens* 'Super red'

8 BIO Mizukusa no Mori *Myriophyllum mattogrossense*

9 BIO Mizukusa no Mori *Rotala* sp. *Ceylon*

# 5 Attach epiphytes

Epiphytic aquatic plants are reassuring because they come in handy in difficult parts in a layout and the midground.

Let's improve the whole aquascape look by effectively arranging epiphytic aquatic plants.



### Species of epiphytic aquatic plants

Epiphytic aquatic plants represented by ferns and mosses are essential to enhance the natural feeling in aquascapes. Epiphytic aquatic plants firmly take root in places where they are fixed. Although they grow slowly, they can be enjoyed for a long time, and the passage of time is expressed.

PROCESS

## 1 Arrange epiphytic aquatic plants.

*Hygrophila pinnatifida* and *Bolbitis* should be used by having them take root on stones and driftwood. Think about hiding the base of stem plants and the continuity between the foreground and background, and plant them with a good balance.

Fix them with Wood Tight.



Wood Tight

PROCESS

## 2 Pour water while putting a weight on the driftwood.

After planting, put a weight on the driftwood to avoid the driftwood from floating, and then pour water. Adjust tap water to 23~25°C, remove residual chlorine with Aqua Conditioner - Chlor-Off, and then pour water slowly.



Chlor-Off

### Arrange epiphytic aquatic plants

When arranging epiphytic aquatic plants, up and down, front and back, left and right and all spaces should be taken into account, and pay attention not to arrange them too evenly or too monotonously. Having a good balance and rhythm is important.

Top



① BIO Mizukusa no Mori *Hygrophila pinnatifida*

② Jungle Plant *Bolbitis heudelotii*

## 6 Aquascape completed — 3 months after planting



It is the completed aquascape 3 months after planting. In a well-balanced aquascape, the water shines purely and healthy aquatic plants thrive. In order to create such a beautiful aquascape, properly setup special equipment for growing aquatic plants, and daily maintenance should be done while observing the aquascape conditions.

# Related Equipment

After planting, install lighting, filter and CO<sub>2</sub> injection equipment.  
Make sure to properly setup special equipment for Nature Aquarium.

## 1

### Filtration System



Super Jet Filter ES-600



Super Jet Filter combines a solid body made of stainless steel and high filtration capacity. It also comes with glass pipes.

## 2

### CO<sub>2</sub> System



CO<sub>2</sub> Advanced System-Forest



When fine CO<sub>2</sub> air bubbles are diffused from Pollen Glass into water, CO<sub>2</sub> is effectively supplied into water.

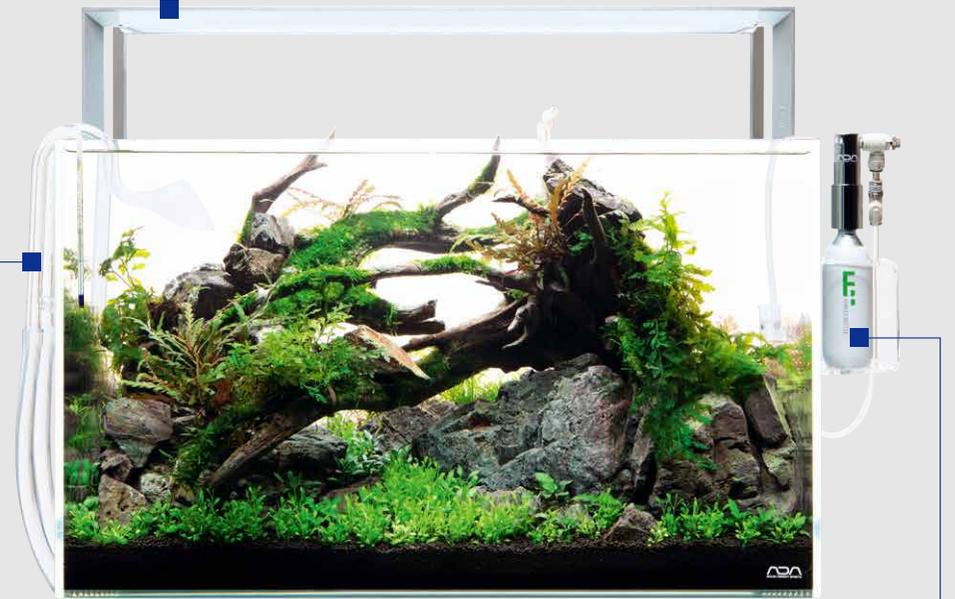
## 3

### Lighting System

Aquasky RGB 60



Lighting equipment that uses RGB LED chip is developed specially for growing aquatic plants, and realizes ADA's unique light. And it helps aquatic plants grow in a healthy condition, and brilliantly illuminates aquascapes.



# 1 Filtration System

Filtration system that makes water in an aquarium tank circulate and purifies the water, might be the heart of Nature Aquarium.

With the function of microorganisms, active water circulation can be created.



Super Jet Filter ES-600

## Water purification by biological filtration

The water in an aquarium tank gets dirty with organic matter and ammonia that are dissolved from substrate, or excreted from living creatures. Eliminating and breaking down the cause of water contamination, and purifying the water are the filter's roles. And filtration by microorganisms settled on the filter media is called biological filtration.

PROCESS

## 1 Set the filter media

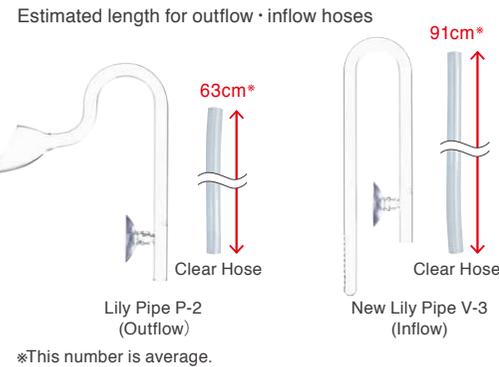
Set Bio Rio G in a filter unit. When yellowing of water occurs, change water or add NA Carbon (sold separately) to the filter media.



PROCESS

## 2 Connect a hose to Lily Pipe.

For the hose to be connected to a filter and Lily Pipe, give an extra length than the exact length.

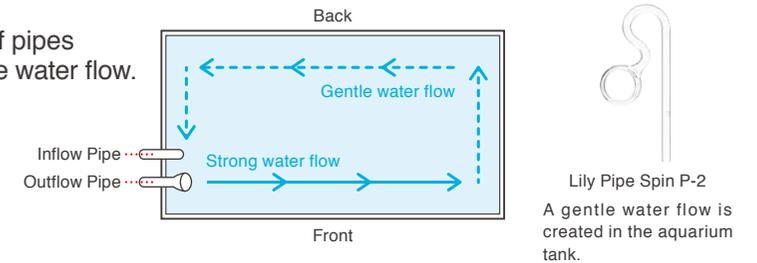


Be careful not to apply excessive force to Lily Pipe.

PROCESS

## 3 Decide the position of pipes in consideration of the water flow.

Water flow occurs in an aquarium tank due to the outflow water from Lily Pipe. The water flow should be taken into consideration depending on the layouts, and both outflow and inflow pipes should be placed accordingly.



PROCESS

## 4 Aeration at night

In the span of time when there is no light, aquatic plants need oxygen like fish. After turning the light off, raise the outflow opening of Lily Pipe from the water surface, and perform aeration.



# 2 CO<sub>2</sub> System

In the span of time when the light is on, supply CO<sub>2</sub>, and promote photosynthesis of aquatic plants. Properly install special equipment, and perform appropriate CO<sub>2</sub> injection.



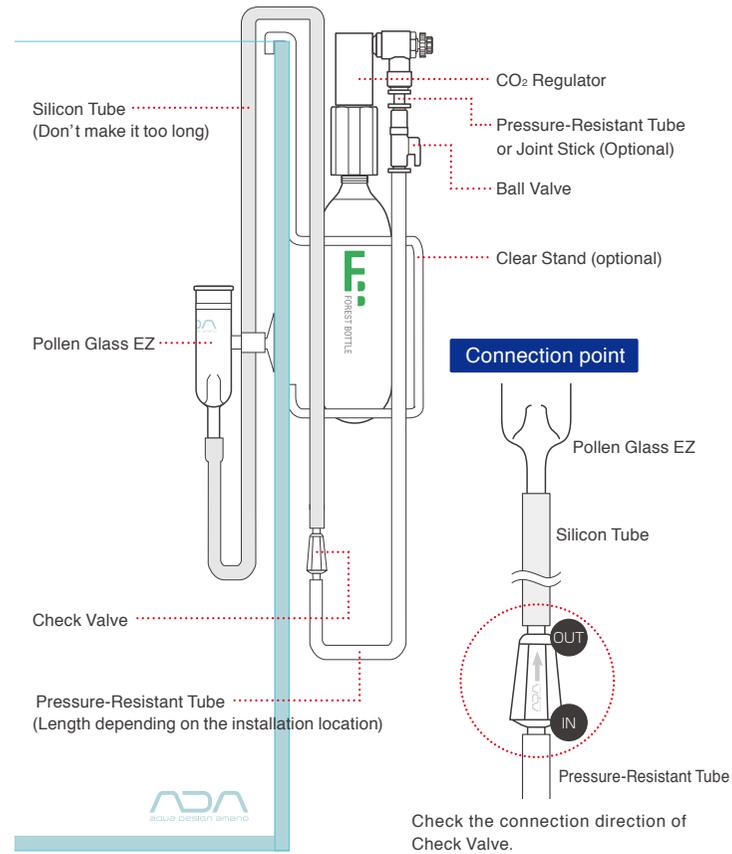
### Necessity for photosynthesis of aquatic plants and CO<sub>2</sub>

Plants perform photosynthesis after being exposed to light and grow. Aquatic plants perform photosynthesis in the water too. They take CO<sub>2</sub> and create oxygen. With the oxygen, living creatures such as fish, invertebrates, and microorganisms breathe, and a good relationship will be established for each other.

PROCESS

## 1 Installation of CO<sub>2</sub> Advanced System

If using CO<sub>2</sub> Advanced System - Forest that consists of all the equipment and parts you need for CO<sub>2</sub> injection, CO<sub>2</sub> injection can be easily started.



- CO<sub>2</sub> Advanced System-Forest  
 [What's included in the set]  
 CO<sub>2</sub> System 74-YA/Ver.2  
 CO<sub>2</sub> Forest Bottle  
 Pollen Glass EZ  
 Check Valve  
 Ball Valve  
 CO<sub>2</sub> Metal Stand  
 Pressure-Resistant Tube (Clear type)  
 Silicone Tube  
 Suction Cups  
 Pipette for cleaning

Clear Stand for CO<sub>2</sub> System 74  
 It can be installed on the side of an aquarium with Clear Stand (sold separately).



PROCESS

## 2 Adjust the CO<sub>2</sub> amount

Adjustment of the CO<sub>2</sub> amount can be done with the Fine adjustment screw on CO<sub>2</sub> Regulator. At first, adjust it to make bubbles come out at a rate of 1 bubble per second, and increase the amount of CO<sub>2</sub> depending on the growth of aquatic plants.



Adjust the injection amount with the Fine adjustment screw, and fix it with the Fine adjustment setting screw.



Count how many bubbles are released inside the counter of Pollen Glass EZ.

# 3 Lighting System

Through many years of research and practice, lighting equipment for Nature Aquarium where aquatic plants thrive beautifully, boasts basic performance for growing healthy aquatic plants and high color rendering.



### Necessity for light

Light is indispensable for photosynthesis that aquatic plants perform. For aquarium tanks, lighting systems play a role of the Sun in nature, and by recreating daylight hours with lighting, a stable living rhythm for aquatic plants and fish can be created.

#### PROCESS

### 1 Install Aquasky RGB 60

Turn on the light every day for about 8 hours. NA Control Timer II is useful because CO<sub>2</sub> On/Off can be also linked.

Light emitting surface should be installed in the center of the water surface.

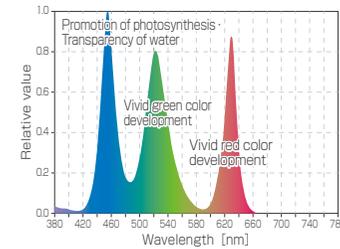


NA Control Timer II

### High color RGB LED for growing aquatic plants

Aquasky RGB and Solar RGB with RGB LED lights specializing in growing aquatic plants, achieve the wavelength of light distribution optimal for enjoying aquatic plants as well as growing them.

#### RGB wavelength chart



Illuminate your aquascape in brilliant colors.

#### Hanging type Solar RGB



Hang Solar RGB with a Stand for Solar RGB.

#### Aquasky RGB 60



#### [Product Specification]

Input voltage : AC100~240V 50 / 60Hz  
 Rated Power : 72W  
 Power consumption : 40W±10%  
 Illuminance : Around 23,000Lux  
 (Central illuminance at 10cm distance)

Color temperature : Around 9,000~12,000K  
 RGB LED × 70  
 ※Due to the nature of LED lighting, there are variations in color temperature.

#### Features

- It can be installed just by placing on top of an aquarium tank.
- It is equipped with the soft-start function that is gentle for living creatures.
- The light amount is optimal for a W60cm aquarium tank.
- Low power consumption and excellent running-cost

#### Solar RGB



#### [Product Specification]

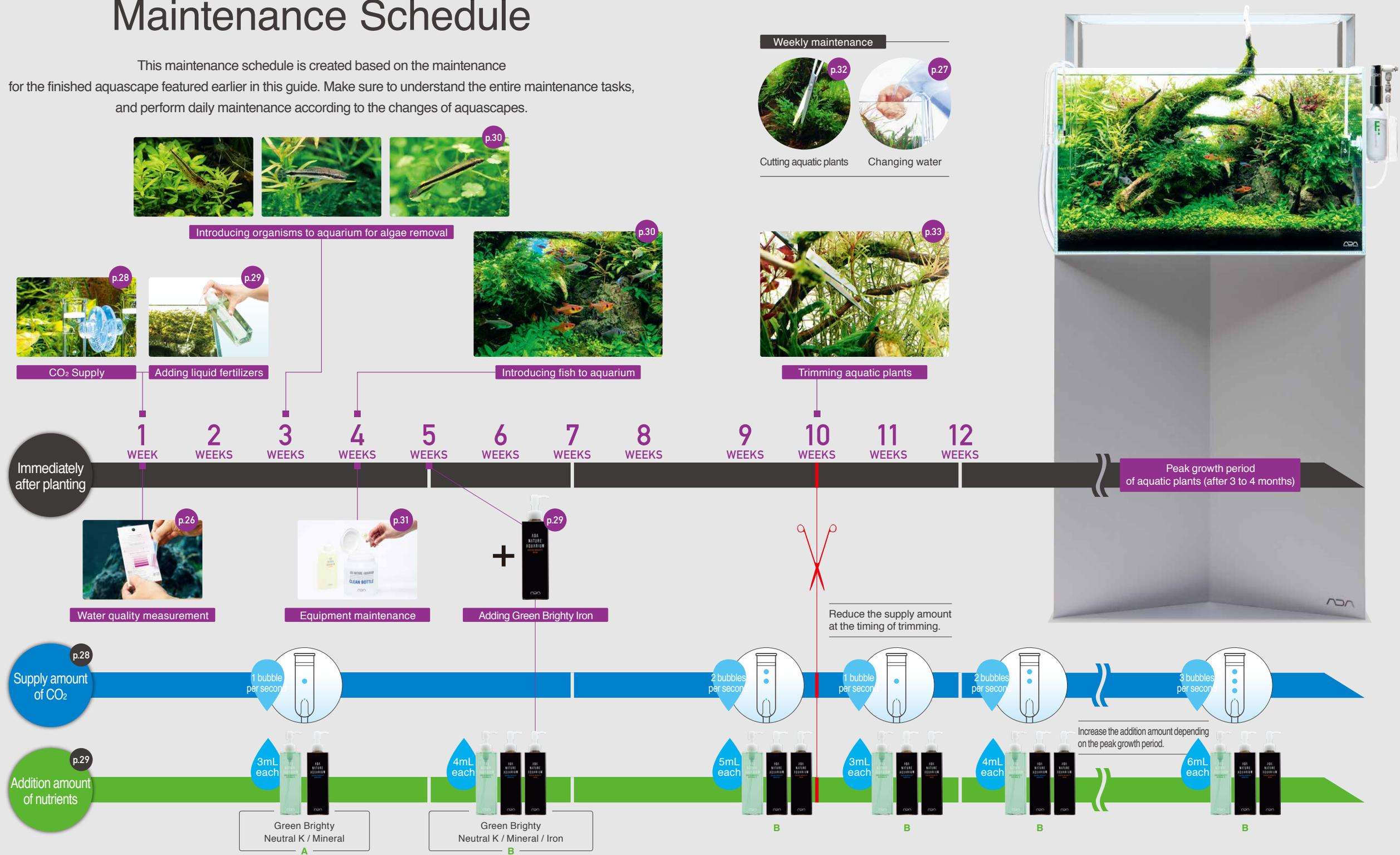
Input voltage : AC100~240V 50 / 60Hz  
 Rated Power : 130W  
 Power consumption : 90W ±10%  
 Illuminance : Around 21,000Lux (Central illuminance at 30cm distance)  
 Color temperature : Around 9,000~12,000K  
 RGB LED × 160  
 ※Due to the nature of LED lighting, there are variations in color temperature.

#### Features

- It is a hanging type and supports open-style aquarium.
- It feels open above the aquarium tank, and makes it easier to do maintenance tasks.
- It can be adjusted with wires, and the light amount can be easily controlled.
- The specification sufficiently supports a W90cm aquarium tank.

# Maintenance Schedule

This maintenance schedule is created based on the maintenance for the finished aquascape featured earlier in this guide. Make sure to understand the entire maintenance tasks, and perform daily maintenance according to the changes of aquascapes.



※The maintenance methods will change depending on the aquascapes.

# Water quality measurement

Water quality measurements are clues to know the condition of aquarium. Make sure to seize the measurement items at the initial stage of aquarium setup, and grasp the environment of the aquarium tank and filtration condition.

## 1. Condition check by observing an aquarium tank

Observe your aquarium tank while paying attention to the check items. An aquarium tank with Aqua Soil - Amazonia Ver.2 tends to have the characteristic of causing less water turbidity than the existing substrate system.

### Check items

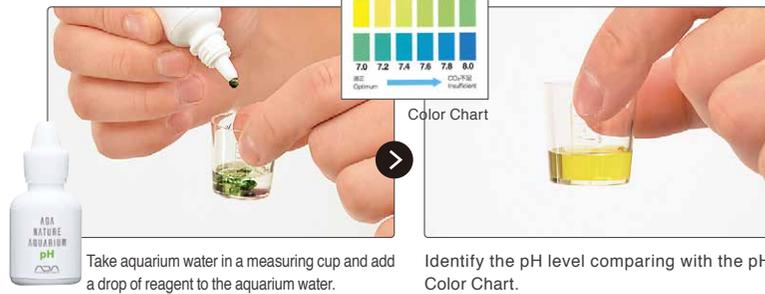
- Water transparency
- Aquatic plant condition
- Algae outbreak



## 2. Measuring a basic pH level of water quality

pH which is the basis of water quality, is a measure of acidity and alkalinity of water (pH=7.0 is neutral). Many aquatic plants prefer slightly acidic water quality with low pH (around pH=6.0).

pH Kit



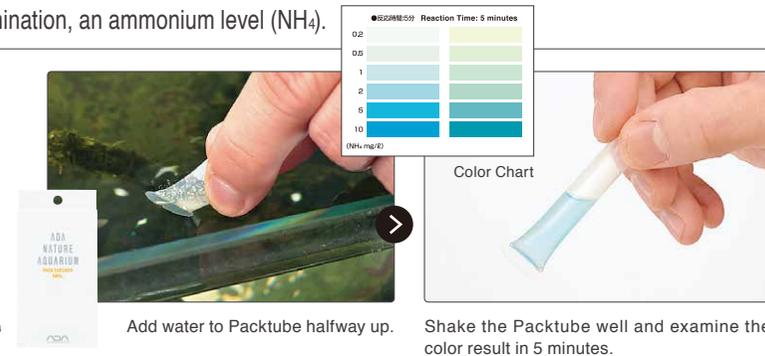
Take aquarium water in a measuring cup and add a drop of reagent to the aquarium water.

Identify the pH level comparing with the pH Color Chart.

## 3. Measuring water contamination, an ammonium level (NH<sub>4</sub>)

To grasp the water contamination level, measure ammonium (NH<sub>4</sub>). Although ammonium can be detected in high concentration at the initial setup stage, it decreases when biological filtration starts to function.

Pack Checker NH<sub>4</sub>



Add water to Packtube halfway up.

Shake the Packtube well and examine the color result in 5 minutes.

# Water change

The water in an aquarium tank gets dirty little by little due to various factors. Regular water change helps maintain the water quality and transparency, and promote photosynthesis of aquatic plants.

## 1. Removing algae from the glass surface before changing water

After 1 to 2 weeks from the aquarium tank setup, algae start to grow on the glass surface. Carefully observe the glass surface from various angles before changing water. If any algae are detected, scrape off the algae and then change water.

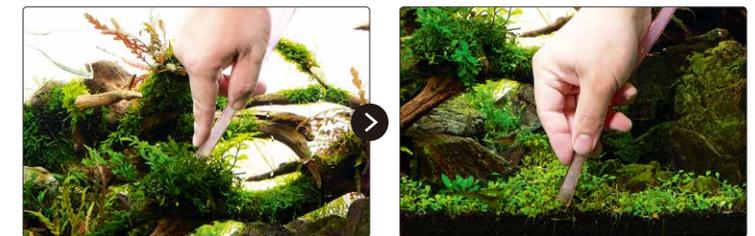


Pro Razor Mini  
Pro Razor

Scrape the glass surface with Pro Razor.

## 2. Sucking out dirt from an aquarium tank with a hose.

Suck out algae and other dirt from an aquarium tank with a hose before changing water. At this time, in order to avoid a layout from getting spoiled, adjust the flow rate by folding the middle of the hose by hand.

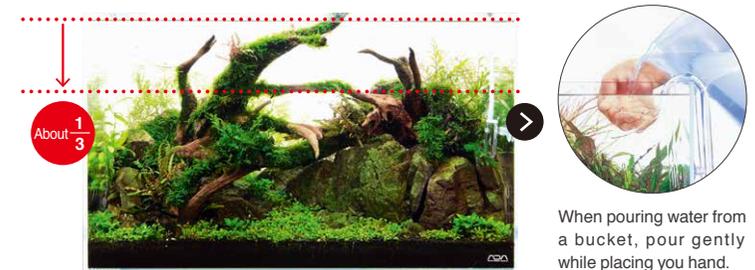


Suck out dirt on aquatic plants.

Suck out spilled soil and tidy up the front side.

## 3. Changing one third of the water once a week as a guide

Drain one third of the water from an aquarium tank and pour fresh water with adjusted water temperature after removing residual chlorine. As a guide, perform water change once a week. However, adjust the number and amount depending on the aquarium tank condition.



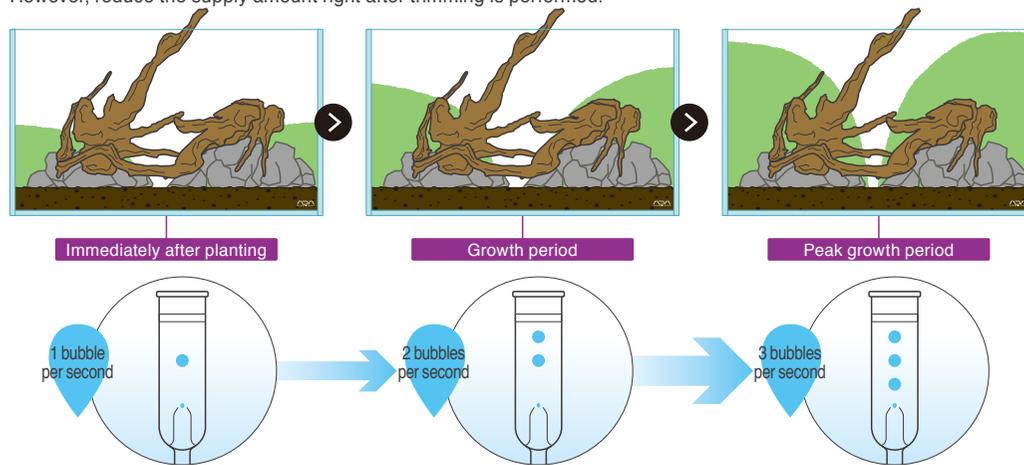
When pouring water from a bucket, pour gently while placing you hand.

# Supply amount of CO<sub>2</sub>

The supply amount of CO<sub>2</sub> needs to be controlled depending on the growth condition of aquatic plants and water quality. Promote photosynthesis of aquatic plants by appropriately supplying CO<sub>2</sub>.

## 1. Adjusting the supply amount depending on the volume of aquatic plants

When aquatic plants begin to flourish, the amount of CO<sub>2</sub> needed for photosynthesis also increases. Therefore, it is necessary to increase the supply amount. However, reduce the supply amount right after trimming is performed.

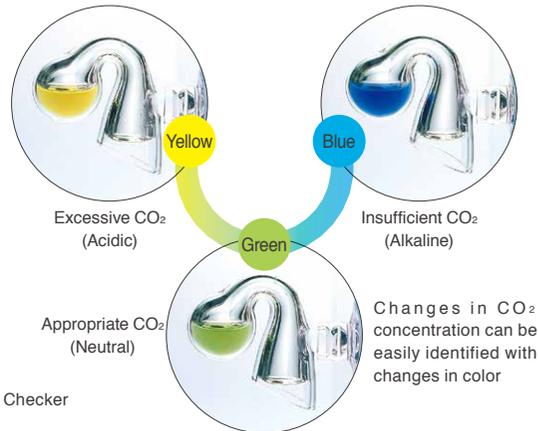


## 2. Adjusting the supply amount depending on the water quality

Drop Checker is a measuring instrument that can continuously check changes in CO<sub>2</sub> concentration of aquarium with the color of reagent. Install Drop Checker to an aquarium tank and use it as a guide for the supply amount of CO<sub>2</sub>.



Change the reagent in Drop Checker every week.



Drop Checker

# Liquid Fertilizers

Liquid Fertilizers are added as a nutrient supplement needed for the growth of aquatic plants. It is essential to add appropriate types and amount depending on the condition of aquarium.

## 1. How to add basic liquid fertilizers

In the aquatic plant growth period, add Green Brighty Neutral K and Green Brighty Mineral. Depending on the growth of aquatic plants, add Green Brighty Iron and promote the growth even more.

### Combination examples by situation

Growth period of aquatic plants  
(from initial aquarium setup stage to about 2 months later)  
1. Green Brighty Neutral K  
2. Green Brighty Mineral

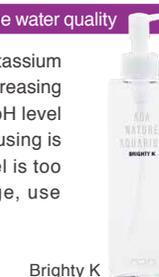
Peak growth period of aquatic plants  
(After 1 to 3 months)  
1. Green Brighty Neutral K  
2. Green Brighty Mineral  
3. Green Brighty Iron



## 2. Adding liquid fertilizers depending on the situation

### Different use depending on the water quality

Brighty K not only supplies potassium but also prevents pH from decreasing at the same time. When the pH level of the tap water that you are using is too low, or when the pH level is too low in the initial setup stage, use Brighty K.



Brighty K

### When aquatic plants grow poorly

When there is a shortage of nitrogen in aquarium, the color of aquatic plant leaves becomes lighter, and the growth will also deteriorate. Supply nitrogen by adding Green Brighty Nitrogen as well as daily basic liquid fertilizers.



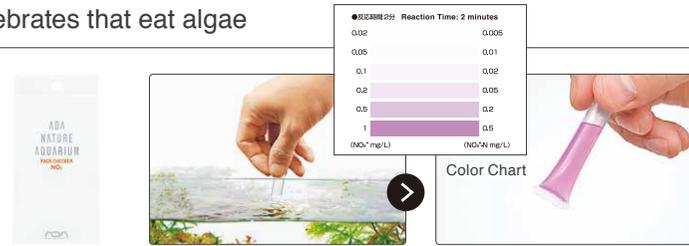
Green Brighty Nitrogen

# Introducing organisms

When organisms are introduced to aquarium, make sure to measure water quality and check if the water quality is safe for the organisms, and then put them into the aquarium tank. After introducing fish, don't forget to feed the fish every day.

## 1. Introducing fish and invertebrates that eat algae

When the water quality stabilizes, introduce organisms for removing algae to the aquarium tank. *Caridina multidentata* is especially sensitive to water quality. Therefore, it is important to make sure that NO<sub>2</sub> is not detected before adding them.



Pack Checker NO<sub>2</sub> Put water in Pucktube. Mix it well and examine the color result in 2 minutes.

NO <sub>2</sub> -N (mg/L)	NO <sub>2</sub> -N (mg/L)
0.002	0.005
0.005	0.01
0.01	0.02
0.02	0.05
0.05	0.1
0.1	0.2
0.2	0.5
0.5	1
1	2
2	5
5	10



5-10 *Caridina multidentata*



2-3 *Otocinclus* sp.



1 *Crossocheilus oblongus*

## 2. Introducing fish and daily feeding

Fish should be introduced to aquarium about 4 weeks after setting up. At the time of fish introduction, perform aeration and prevent oxygen deficiency of fish. Start feeding every day from the day after adding fish.



Pay attention to changes in water temperature, keep it at 23 to 25°C.



Let a bag with fish in it float in the aquarium tank for a while, and adjust the water temperature.



Open the bag, add the water to the bag little by little from the aquarium tank, and make the fish get used to the water.

Fish Food AP Premium



Depending on the size and nature of fish, choose from 3 types of grains.

# Equipment maintenance

It is important to keep equipment clean not only for the aesthetic viewpoint but for the proper performance demonstration. Environment in the aquarium tank is well-prepared with clean equipment.

## 1. How to clean Pollen Glass

Add 1L of water and a capful of Superge to Clean Bottle and soak Pollen Glass in the water with Superge. After soaking it for a few hours, remove the cleaning solution from the Pollen Glass and rinse it with tap water.



Superge Clean Bottle

If the diffusion surface is dirty, the CO<sub>2</sub> supply becomes less effective. The clean diffusion surface creates fine air bubbles.

## 2. How to clean Lily Pipe

Just like Pollen Glass, soak Lily Pipe in a bucket with water and Superge. If using Spring Washer, dirt on the inside can be easily cleaned too.



Spring Washer S Brush section Spring handle

The spring type handle is convenient for cleaning Lily Pipe.

## 3. Rinsing filter media

Open the filtration tank of a filter and check filter media every 2 to 3 months. If sludge has accumulated, restart the filter after rinsing the filter media with the aquarium water from the aquarium tank.



Be careful not to over wash the filter media. Green Bacter Plus

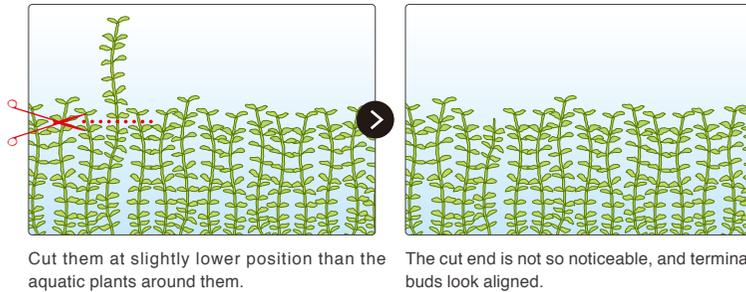
After restarting the filter, add Green Bacter Plus to the aquarium tank.

# Shape aquatic plants by cutting

In the daily maintenance, always observe the condition of aquatic plants, and cut the aquatic plants as needed. Frequent cuts are the secret to the well-maintained scenery.

## 1. Cutting aquatic plants that pop out

For stem plants, even if they are planted at the same time, they may not be always aligned neatly. When stem plants pop out while growing, cut them appropriately and maintain the aesthetic.



Cut them at slightly lower position than the aquatic plants around them.

The cut end is not so noticeable, and terminal buds look aligned.

## 2. Cut over-grown moss

When moss is over-grown, it becomes easier for the moss to come off. Therefore, adjust the length by cutting them before it grows thick. Cut frequently to encourage the moss to attach.



After cutting, use a hose to suck out the moss scattered in the aquarium tank.

Pro-Scissors Spring

Pro-Scissors Short (curve type)

## 3. Cutting damaged leaves and old leaves

Cut damaged leaves and old leaves regularly. For ferns such as Bolbitis, cut them at the base of the leaves, and promote the development of new leaves.



By thinning out leaves, the water permeability improves, and it also helps prevent fern disease.

Pro-Scissors Short (straight type)

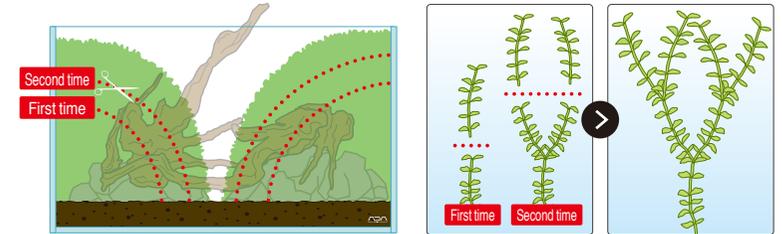
Pro-Scissors S (straight type)

# Trimming

In order to create beautiful underwater scenery, appropriate trimming for each aquatic plant species is needed. Be conscious of the composition and decide where a trimming line should be.

## 1. Cut stem plants after deciding a trimming line

Stem plants increase the volume while branching by trimming them repeatedly. As a result, it increases the sense of denseness. By trimming a few times, they become multi-branched from one stem, and create the beauty of plant cluster.



The first trimming line should be low.

Raise the cut position and create the sense of denseness.

## 2. Trimming foreground plants

Trimming foreground plants can be effectively performed when using a pair of scissors with curved blade edges. Be careful not to forget trimming aquatic plants near stones.



Trim foreground plants before they grow too thick.

Pro-Scissors Wave

Pro-Scissors S (curve type)

## 3. Caring after trimming

If the volume of aquatic plants decreases, temporarily reduce the supply amount of CO<sub>2</sub> and liquid fertilizers. As a care after trimming, add Green Gain Plus and promote the development of new buds.



Adjust the supply amount depending on the volume of aquatic plants.



Add 3 drops daily for a week after trimming

# Algae removal

Algae spoil the aesthetic of the entire aquascape and inhibit the growth of aquatic plants. Keep in mind to detect early and remove them frequently with proper treatment methods.

## 1. Diatom Algae

Diatom algae are fluffy algae in brown, and they tend to grow when setting up an aquarium tank with new filter media. Remove this algae with a hose, or by introducing slightly more *Caridina multidentata* after confirming the safety of water quality.



Roughly suck out Diatom algae with a thin hose.



Diatom algae will be removed in 1 to 2 days after adding *Caridina multidentata*.

## 2. Spirogyra

Immediate action is required as soon as *Spirogyra* that have strong reproductive capacity, are found. After removing *Spirogyra* with a brush, temporarily shorten the lighting time, add slightly more *Caridina multidentata* and see how the situation goes.



Clear Water



Remove phosphorus that causes outbreak. Add 4 to 6 pushes as a guide.



Suck out *Spirogyra* with a hose after capturing them by having them tangle on a brush.

## 3. Blue-Green Algae

Blue-Green algae similar to fungi such as mold, is troublesome because of its fast growth speed. *Phyton Git Sol* is an additive with viscosity in addition to bactericidal components, and it specializes in exterminating blue-green algae.



Phyton-Git Sol



First, suck out as much blue-green algae as possible with a thin hose.



By adding *Phyton Git Sol* to outbreak locations, it helps exterminate remaining blue-green algae and prevent them from re-growing.

## 4. Green Algae

For green algae, different tools should be used depending on the outbreak locations. Use *Pro Razor* for the glass surface and a nylon brush for a wide range such as driftwood and stones, and removal by feeding *Otocinclus* sp. is also effective.

Scrape off the green algae growing on stones to the smallest detail.

Pro-Brush



*Otocinclus* sp.

## 5. Staghorn Algae

Staghorn algae tend to grow in an aquarium tank that has been maintained for a long time. Remove them with a brush, or when they grow on aquatic plants, cut the whole leaves.

The brush part made of metal, makes it easy to remove tough algae.

Pro-Brush Hard



## 6. Asajirella gelatinosa

It is translucent jelly like and characterized by the round shape. They proliferate even from broken pieces. Remove them by sucking out with a hose while paying attention not to splash them in the water.

Rake out *Asajirella gelatinosa* from ditches of stones.

Pro Picker



## 7. Beard Algae

Accurately remove tough black beard algae with *Pro Picker*. Beard algae growing on aquatic plants should be removed with organisms, or by cutting the whole leaves.

Feeding can prevent beard algae from proliferating. Add young fish of about 3 to 4cm to the aquarium tank.

*Crossocheilus oblongus*



# NA Troubleshooting

In this section, common problems during the aquascape maintenance are summarized. Prepare for possible troubles and learn coping strategies.

## CASE 1 Cautionary points for choosing fish

Avoid organisms that cause eating damages to aquatic plants and eat shrimps. And be aware that adding too many organisms may make the ecosystem become out of balance.

[Guideline for a W60cm aquarium tank]  
(Featured aquascape example)

- Otocinclus sp. : 2-3
- Crossocheilus oblongus : 1
- Caridina multidentata : 5-10
- Paracheirodon axelrodi : 10
- Hyphessobrycon sweglesii : 5
- Hyphessobrycon megalopterus : 5
- Pristella maxillaris : 5

## CASE 2 Fish open and close their mouths rapidly on the water surface.

When fish experience oxygen deficiency, they demonstrate a behavior of gasping for air as opening and closing their mouths rapidly on the water surface. When you identify such a behavior, immediately perform aeration. When the oxygen deficiency occurs repeatedly, the environment of the aquarium tank needs to be reviewed.



[Causes of oxygen deficiency]

- Excessive CO<sub>2</sub>
- Poor aquatic plant growth
- Poor water quality, Decreased filtration capacity
- Overstocked aquarium

## CASE 5 Moss comes off of driftwood

When Moss Cotton melts before moss attaches to driftwood, reattach moss. Drain water up to the part where moss has come off and reattach moss with Moss Cotton again. By trimming moss regularly while maintaining them short, it helps them stay in place and makes it harder for moss to come off. For moss that hardly attach themselves to the surface such as Vesicularia sp., Riccia Line which does not melt in water, is recommended to use.



## CASE 6 Aquatic plants stop growing

After about half a year of aquascape maintenance, the substrate supplies less nutrients, and as a result, poor growth of aquatic plants or whitening may be seen. By directly adding Bottom Plus to the substrate, it helps promote nutrient absorption from roots and improve the growth of aquatic plants. If Bottom Release is used in that case, Bottom Plus can be injected accurately and deeply into the substrate.



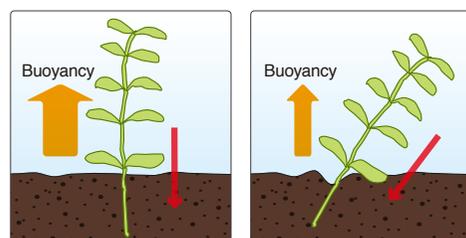
## CASE 3 Suddenly, the water becomes cloudy.

When the water suddenly becomes cloudy besides the initial setup stage, it's because there is something wrong with microorganisms in the filter. First of all, establish an environment in the aquarium tank by performing water changes to improve the water quality, and cleaning the filter and filter media. Moreover, in order to promote the function of microorganisms, add Bacter 100 and Green Bacter Plus dissolved in water, perform aeration and see how the condition goes for a few days.



## CASE 4 Planted aquatic plants keep floating in water

For stem plants planted in the background, one of the possible causes is that aquatic plants are not planted deep enough, and another possible cause can be the planting angle. Insert a pair of tweezers diagonally into the substrate and firmly plant aquatic plants in order to control buoyancy. Additionally, when an aquarium tank is filled with water, it becomes harder to plant aquatic plants due to buoyancy. Therefore, for both foreground and background, the key point is to add just enough water to make the substrate get submerged in water, and start planting aquatic plants.



If planted vertically, it is easy for aquatic plants to come out due to buoyancy. When planted diagonally, it is hard for aquatic plants to come out.

## CASE 7 How to keep cosmetic sand neat

In an aquascape with a cosmetic sand area and a soil area, some soil may end up being on the cosmetic sand area because of activities of living creatures, or daily maintenance such as water change. In that case, carefully suck out the soil with a thin hose. When the sand gets too dirty, suck out the entire cosmetic sand with a hose, and put it back after washing it, or spread new cosmetic sand.



## CASE 8 Shrimps and other organisms suddenly start behaving uncontrollably

If it happens immediately after planting aquatic plants, residual pesticide left on the aquatic plants may be the possible cause. When purchasing aquatic plants, make sure that they are pesticide-free. Wabi-Kusa and BIO Mizukusa no Mori are pesticide-free and safe for organisms.

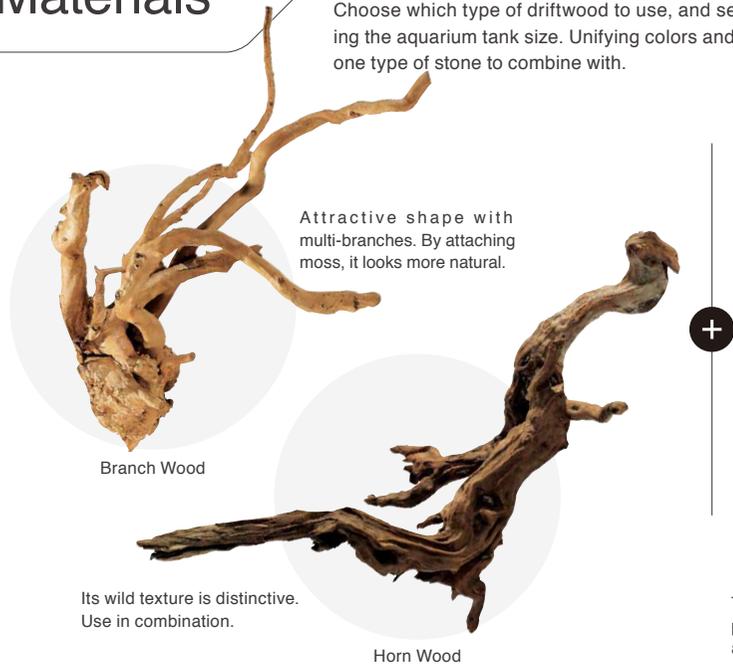


# Driftwood — Layout Process

## 1 Materials

### Driftwood types and combinations

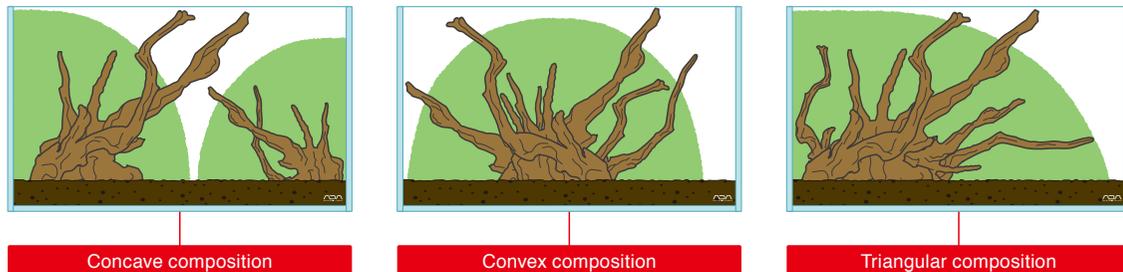
Choose which type of driftwood to use, and select a few pieces while considering the aquarium tank size. Unifying colors and textures is the key point. Choose one type of stone to combine with.



## 2 Composition

### Three basic compositions created with driftwood

In order to create a beautiful and stable composition structure, think about three basic compositions and arrange pieces of driftwood. When creating a composition, it is also important to think about planting space for aquatic plants.



It is a composition that is easy to give a sense of perspective with space in the center. Be careful not to make it symmetrical.

It is a composition that has a sense of stability with spaces on the left and right. The center of gravity should be slightly shifted from the center.

It is a composition with space on the left or right, and makes it easier to secure a swimming space for fish.

## 3 Aquatic plants

Selection of aquatic plants that can affect the impression of an aquascape. The impression of an aquascape is mostly determined by aquatic plants. Especially the impression that background plants give is significant. Therefore, think about shapes and colors of background plants while selecting.



## 4 Fish

How to choose fish that are suitable for driftwood layouts

In a layout composed of a wide variety of aquatic plants, the atmosphere looks more fun if different types of fish are mixed. Consider preferred swimming levels of each fish you are combining as well.



Layouts with driftwood are attractive because countless layout variations are available with different combinations. Learn the basic knowledge and enjoy creating layouts freely.

# Iwagumi — Layout Process

## 1 Materials

### Stone types and how to choose stones

Select materials while imagining a layout you wish to create, and choose one main stone. Additionally, have several pieces of the same stone type in various sizes.



Ryuoh Stone

It has a refreshing impression and suits well with the pleasant layout.



Unzan Stone

It goes well with epiphytic aquatic plants as well as cosmetic sand.



Sansui Stone

It is characterized by layered cracks, and creates an impression like Sansui landscape paintings.



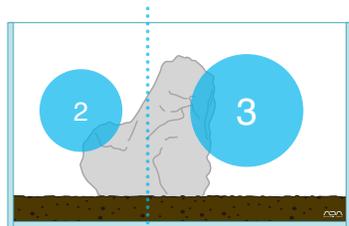
Ouko Stone

It helps create a distinctive aquascape with its yellowish shade and uneven texture.

## 2 Composition

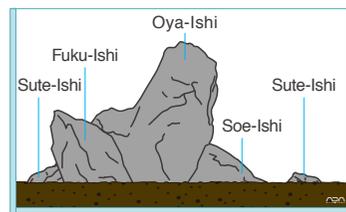
### Basics of Sanzon Iwagumi

Sanzon Iwagumi which is the fundamental form of Iwagumi, is mainly composed of three stones in large, medium and small. After placing the biggest and well-shaped Oya-Ishi (main stone), arrange the rest of the stones in descending order.



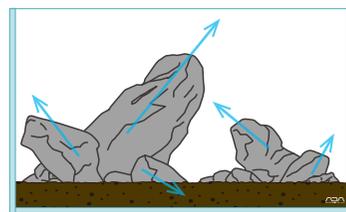
2:3 Balance

When placing an Oya-Ishi, shift the center of gravity to the left or right, and place it while keeping a 2:3 balance in mind.



Name of each stone

Stones have names depending on their role. They are called Oya-Ishi, Fuku-Ishi, Sute-Ishi, Soe-Ishi in descending order.



Stone direction and flow

Be aware of the size of stones to be used and space, and adjust the angle and direction of each stone.

## 3 Aquatic plants

### Aquatic plants that suite well with Iwagumi

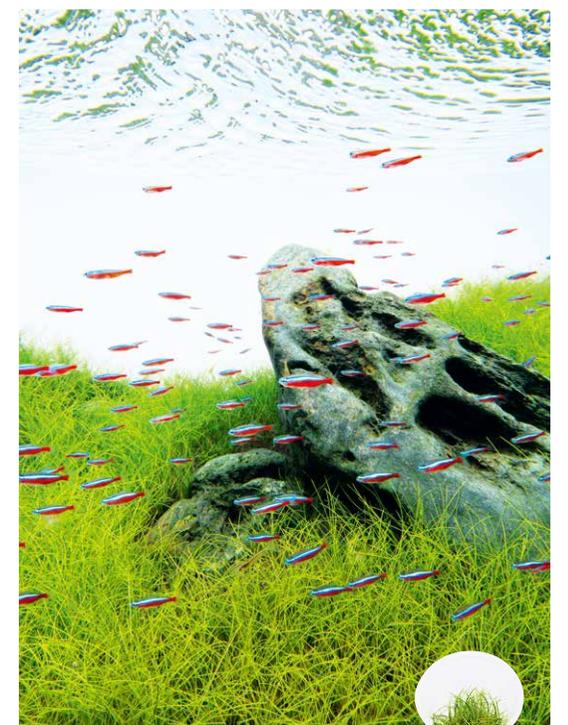
For Iwagumi layouts, it is recommended to plant short aquatic plants after narrowing down the types. Emphasize a simple Iwagumi with aquatic plants while taking advantage of a powerful composition.



BIO Mizukusa no Mori *Glossostigma elatinoides*



BIO Mizukusa no Mori *Micranthemum* sp.



BIO Mizukusa no Mori *Eleocharis acicularis*

## 4 Fish

### How to choose fish that go well with Iwagumi layouts

With an Iwagumi layout with a simple composition, streamlined fish that swim dashing in a large space, go well together. A single type of fish stands out wonderfully, and a school of fish swimming dynamically can be enjoyed.

Single fish type



Simply choose one type of fish.

Refreshing



Refreshing streamlined fish match well.

# Aquascape example of W60cm aquarium



**Basic triangular composition created with stem plants**

Aquascape with a triangular composition having space on the right side. BIO Mizukusa no Mori offers a wide variety of aquatic plants. Aquatic plants with various colors and shapes of leaves can be enjoyed.



**Easy layout just by placing Wabi-Kusa**

Layout with a concave composition by placing Wabi-Kusa and Moss Rock on a thin layer of sand. A layout can be easily created just by placing Wabi-Kusa without any hassle of planting.



**Convex composition with stem plants, placing the center of gravity in the center**

This aquascape has the center of gravity in the center with a convex composition arranged with driftwood and red aquatic plants. By keeping the fish simple with just a single type, the flamboyant look of the stem plants stands out even more.

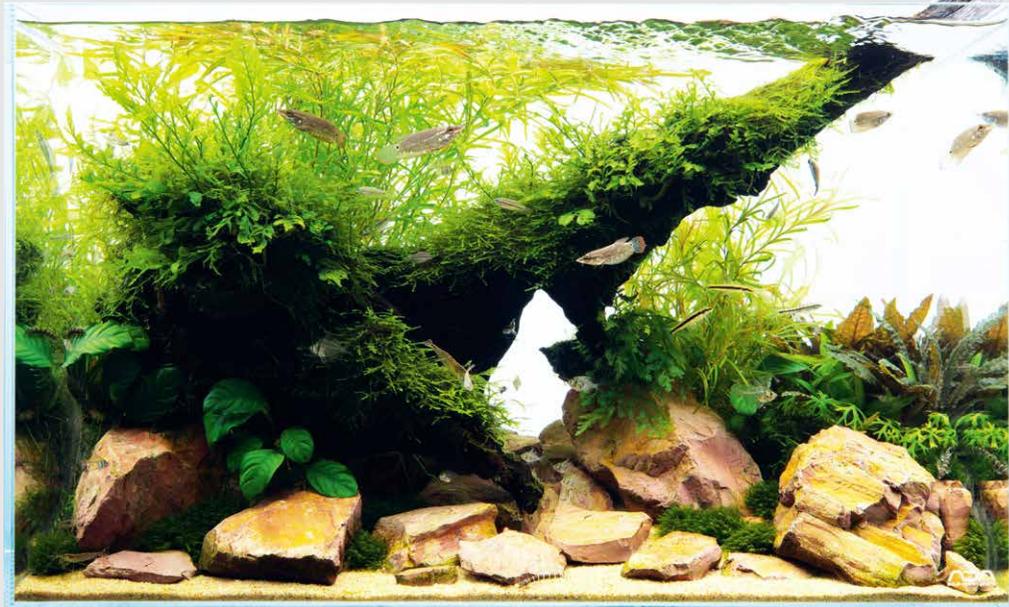


**Creating a sense of denseness in deep green color**

Aquascape in deep green tone by attaching moss to the entire driftwood. Eleocharis acicularis and a shade loving plant, Cryptocoryne create a dense atmosphere.

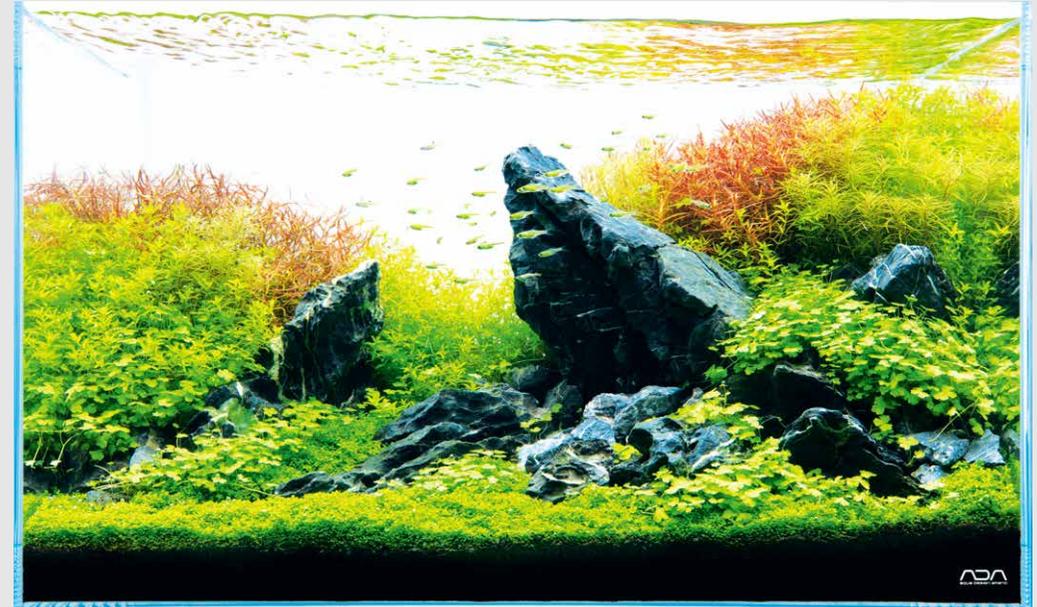
Aquascape patterns are endless depending on the different combinations of composition materials, aquatic plants and fish. Develop your ideas and imaginations from various aquascapes.

# Aquascape example of W60cm aquarium



**Expressing a wild view of the world with a piece of driftwood**

If a large piece of driftwood is placed as a main focus, a wild view of the world can be expressed. By attaching moss and ferns to driftwood, make the aquascape look wilder.



**Matching Iwagumi and stem plants**

Style that combines a simple Iwagumi with gorgeous stem plants. By combining the powerful look of the Iwagumi and softness of the aquatic plants and contrasting them, each strength stands out.



**Recreating a local site with a selection of aquatic plants and fish**

Aquascape with aquatic plants and fish native to Africa. By imagining a water area as a motif and using materials of the same origin, biotope-like elements are added to the aquascape.

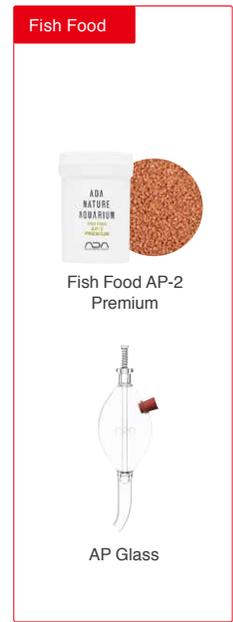
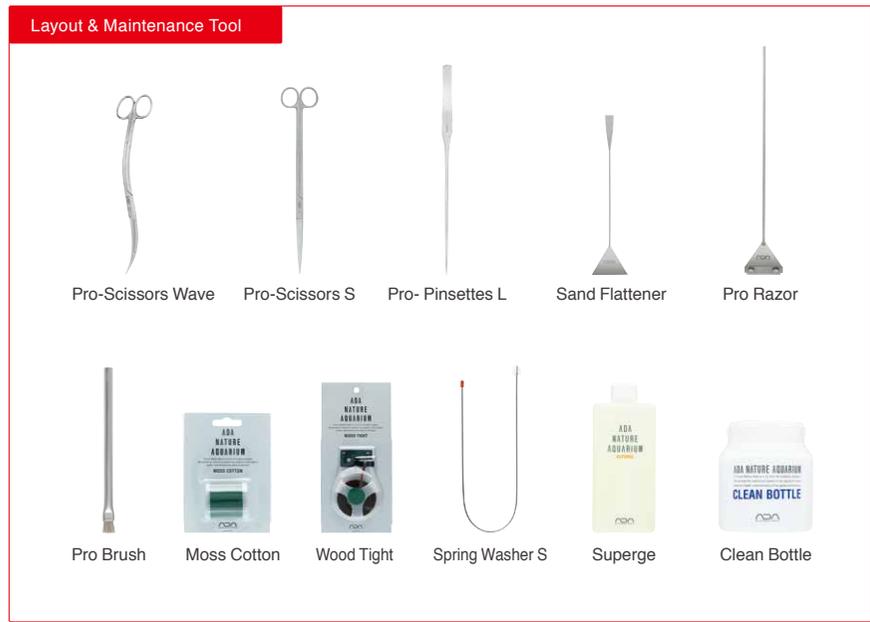
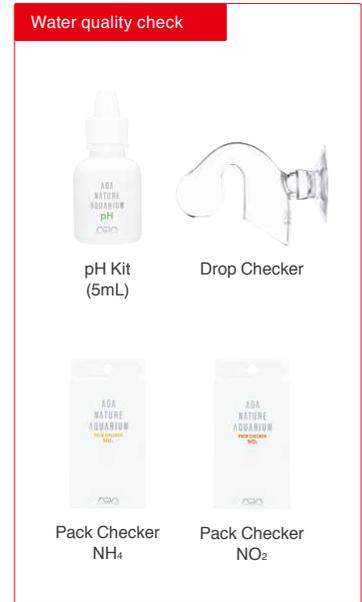
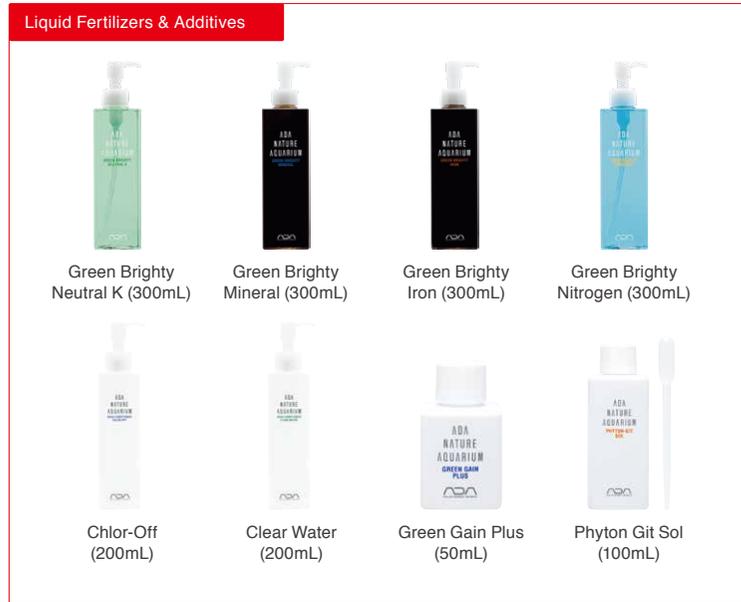
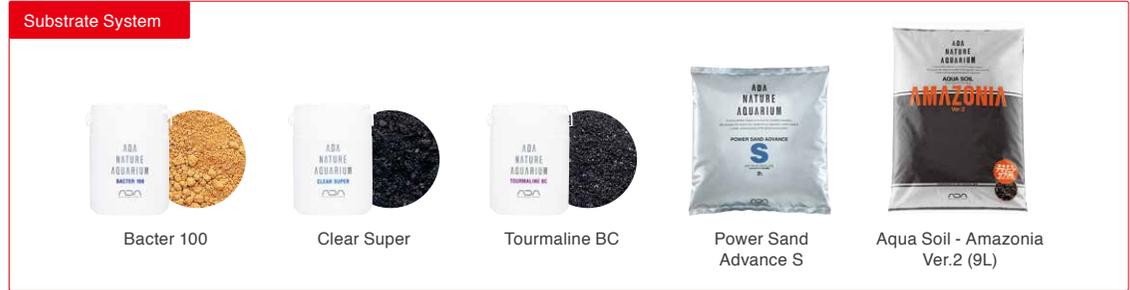
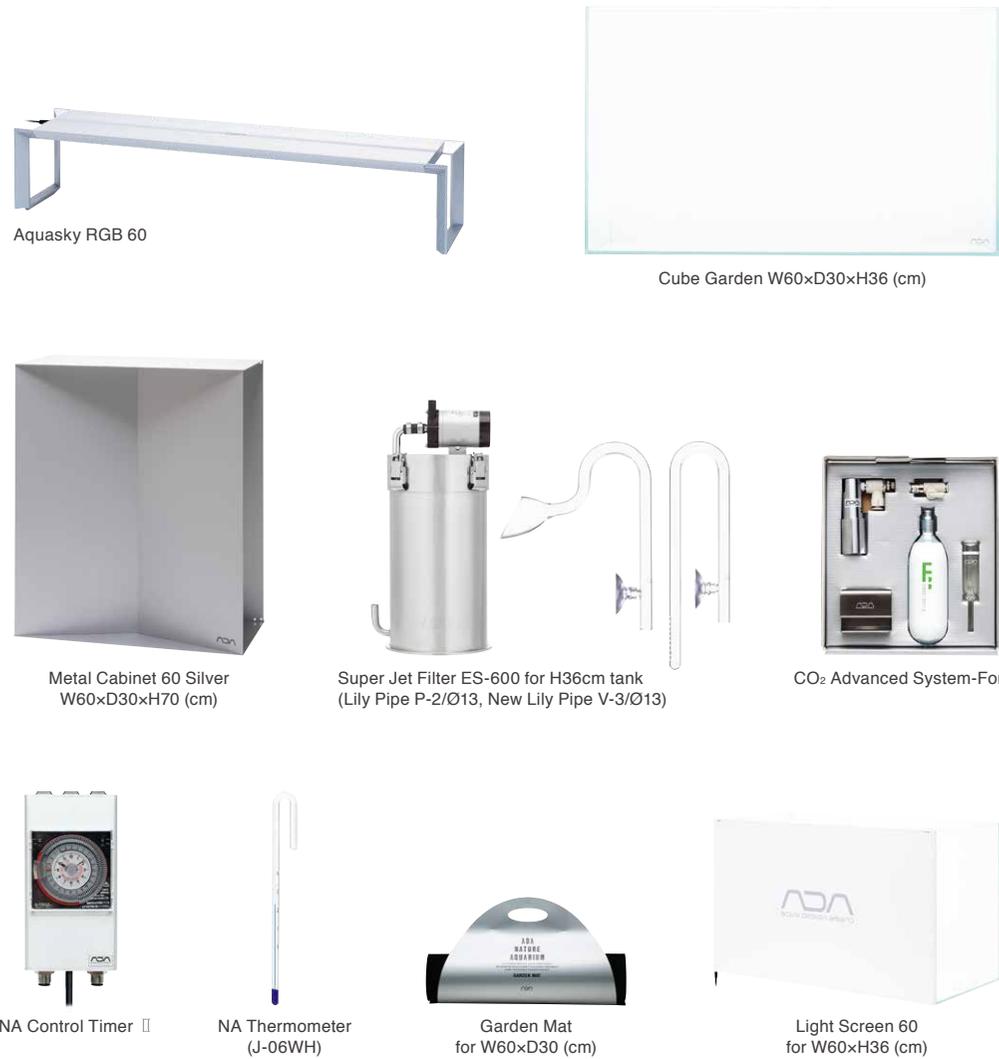


**Iwagumi layout with a bush in the background**

Iwagumi layout with a *Micranthemum micranthemoides* bush in the background. By controlling the line of *Micranthemum micranthemoides* with trimming, a three dimensional aquascape that is different from carpet-like foreground plants, can be enjoyed.

# NA Goods List for W60cm Aquarium Tank

This is a list of basic W60cm aquarium tank complete set and must-have Nature Aquarium goods.  
Enjoy beautiful Nature Aquarium with the professional tools.



# ADA INFORMATION

ADA is working to boost information contents through various platforms in order for you to enjoy Nature Aquarium even more.



## WEB AQUA JOURNAL

Various information about ADA including new aquascapes by ADA SUIKEI Creators, maintenance know-how, and how to enjoy DOOA products, is featured in WEB AQUA JOURNAL. It is updated on ADA official website every Friday.

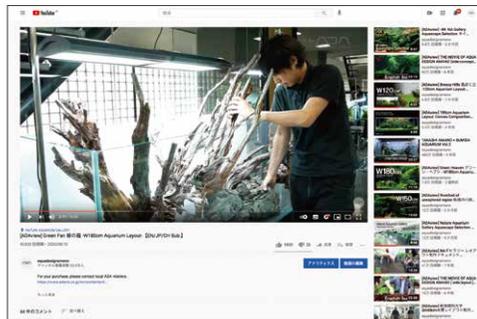
<https://www.adana.co.jp/en/aquajournal/>



## ADA OFFICIAL WEBSITE

Official website with information about ADA and Nature Aquarium including new product and ADA retailer information. Find the lineup of all products on the website too.

<https://www.adana.co.jp/en/>



## YOUTUBE / ADAview

Uploaded on the 10th and 25th of every month. Fun videos about Nature Aquarium including production process of aquascape layouts and how to use ADA products, are uploaded on the channel.

<https://www.youtube.com/user/aquadesignamano>



## DIGITAL INFORMATION / Social Media

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Twitter [https://twitter.com/ADA\\_Japan](https://twitter.com/ADA_Japan)  
ADA newsletter <https://www.adana.co.jp/en/contents/release/newsletter.html>

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