

Understanding reptiles, the basics

Substrates

One of the most enjoyable parts of owning a reptile or amphibian is creating a perfect little slice of the jungle, forest, or marsh in your home, like you've taken a knife and carved out a little cube of nature! The substrate is the foundation of your pet's home, and plays a much more important role than just how your cage looks.



There are a wide variety of substrates to choose from, each one appropriate for different species. And there are pros and cons to every type of bedding available. It can seem a bit overwhelming when you first see the choices, so let's check each one out:

Ground coconut shell: This is the husk of the coconut, ground up into either coarse or fine pieces. It's great for more tropical reptiles, as it holds moisture well and creates a great forested or jungle look. It is better aerated than most bark substrates, but and, if ingested, cause impaction. It can potentially carry mites, so that's something to keep an eye out for, especially during the spring time.

Moss: Moss can be used alone or spread on top of ground coconut fibers. It's great for helping keep the ambient humidity up in your cage; take the moss out, ball it up and dunk it in some water. Wring it out so that it is merely damp (not soaking wet), and replace back in the cage. During the day, the water evaporates, creating the perfect environment for your tropical reptile or amphibian. Mites are a possibility with moss as a substrate.

Reptile Pine Bark: You may see this offered in other places for reptile bedding; we don't offer it as we have found, over the years, that it tends to harbor mites and bacteria easily.

TIP: A lot of these wood-based substrates can, when soiled, be recycled in the home and in the garden as compost and mulch.

Ground walnut shell: Ground into small pieces, English walnut shell is a common substrate for all of your desert reptiles. It holds heat really well and is easy to clean with a sifter (like a cat box). Since it stays dry, it doesn't need to be changed out frequently. Walnut shell also allows your lizard or tortoise to dig, a natural behavior that keeps them healthy. It can be dusty, though, and, as always, if ingested could cause impaction. NOTE: may not be appropriate for families with nut allergies.





Cage carpet: An artificial substrate for the bottom of your reptile/amphibian cage, rather like AstroTurf. Because it's all in one piece, reptiles are at a very low risk for getting impacted. Many people keep two pieces for their cage; when one gets dirty, you pull it out, put the new one in place, and then soak and sanitize the dirty one. Some of the downsides to the cage carpet is that it limits a reptile's natural behaviors (although many do crawl underneath it), it doesn't hold heat, and, if the edges are frayed, toes can get caught in it. R-Zilla's Terrarium Liner comes in every common cage size, so it's easy to use.

Calcium sand: Available in a wide range of colors, this substrate is actually tiny beads of calcium carbonate. Manufacturer's claim the calcium substrates are safe for digestion, are great as a calcium supplement and also hold heat and allows lizards and tortoises to dig into it. According to most vets, long term use of substrates do run the risk of intestinal impaction.



Alfalfa pellets: This unique bedding is safe since if it is ingested, it breaks down in their guts so there's no risk of impaction. It is appropriate for larger animals, especially large tortoises, iguanas, and some skinks. It can be harder for smaller animals to move around in, and there is some concern that it will develop gait irregularities for some smaller tortoises. It can also grow mold if it gets wet.

There is a bit of a disagreement between veterinarians and reptile enthusiasts about the appropriate substrate. Reptiles are known to be genetically sound; they are not known to have genetic diseases. When people *do* have to take their lizard in to a vet, it is invariably due to long term care issues or more acute issues caused impactions from swallowing substrate – so vets really do not like sandy substrates and always suggest using cage carpet. Reptile enthusiasts, however, love the sandier substrates as they hold heat better, look more natural, and allow your reptile to engage in instinctive behaviors like digging.

The important thing to understand is that no one substrate is completely safe. When considering a substrate, you should choose one that will assist in keeping your herp physically and emotionally healthy. A good option is to use a reptile liner for a portion of the cage and add a section of damp moss on top for humidity and or a container of substrate for instinctual digging. Discuss any concerns you have with your reptile veterinarian.

Cleaning substrates.

Keep your reptile cage clean and healthy means keeping the bedding clean. Every day, when you're in the cage feeding and checking humidity, spot clean. With wood/fibrous substrates, use a paper towel to spot clean any obvious soiled bedding. Sandy substrates should be sifted to removed droppings and solids. (This is also a great time to wash out the water dish; don't just change the water, use some soap and water to help keep their cage even cleaner.)

We recommend cleaning with your nose: when you're in your cage caring for your pet, take a sniff. If it smells funky or musty, it's time to do a major cleaning in the cage. Keep in mind that the higher the humidity, the more frequent the cage will need to be cleaned.

Remove the pet and put somewhere safe. Remove all the decorations and scoop out the bedding; we find a dust pan makes a great scoop for dirty bedding. If you're using cage carpet, we like to soak it in a mild bleach solution and then rinse it VERY well (the nice thing about bleach is that, while it is very toxic, once you don't smell it, it's gone.) Many people will have two identical pieces of carpet and will place a clean one in the cage while cleaning and drying the dirty carpet; once it's clean, keep it ready for the next time you need to change the cage. Use some Nature's Miracle in the bottom of the cage, then wipe it clean. Dry the cage out and replace the substrate. Use some vinegar to get rid of water spots (if you're spraying moisture in the cage every day, water spots build up fast.) Replace the decorations and place your pet back in their safe, clean home!



TIP : Don't saturate tropical and temperate reptile cages. Standing water in the bottom is the fastest way to build up mold, mildew, and bacteria. Moss is helpful here, as it can get wet but help keep the bottom of the cage dry. Dunking the moss can also help prevent water spots. It's better to lightly mist a cage a few times a day than to soak it once a day.

Your reptile's substrate is the not only the foundation of their cage, it plays a vital role in both the health and happiness of your pet and the appearance of the cage. Knowing your pet, the environment where it comes from, not only creates a realistic, accurate look in your cage, but also helps ensure that it not only survives, it thrives.

Lighting and heat:

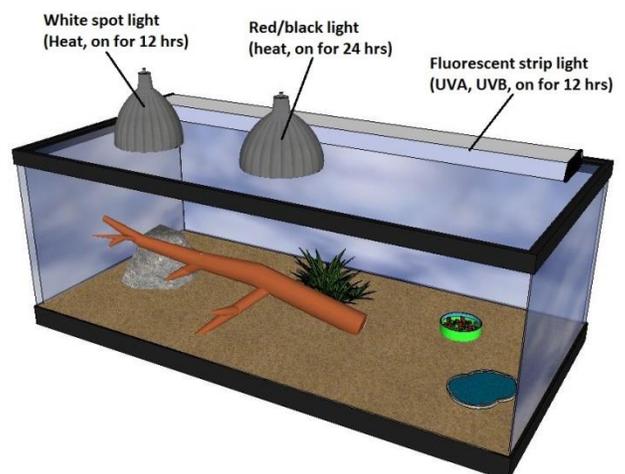
Lighting does more than just show off your great setup. Lighting helps regulate and establish your pet's wake/sleep cycle and their feeding schedule, maintains the reptile's mood and emotional state, provides a vital source of heat and important UV radiation. There are a lot of different options when looking at lights, so we're going to break them down.

First, why is UV so important? Reptiles are no different than us. UV comes in two forms: A and B. UVA is produced by most of the lights that we offer. It is important as it helps regulate mood, inducing normal activities and needs, such as eating. UVB, on the other hand, is essential for stimulating the production of vitamin D3 in their skin. This is vital for the metabolism of calcium; Basking loving reptiles need a higher level of UV than tropical reptiles; keep this in mind when selecting the right bulb.

Know your animal. Know where they come from and the necessary levels of UV for them to thrive in their cage. If you have any questions, as always, consult you reptile veterinarian. Inadequate levels of UV radiation can lead to indigestion, loss of appetite, stomach and mouth rot, blindness, paralysis, metabolic bone disease, and in some cases, death.

There are a few different ways to set up your bulbs for your reptile:

Three light setup: The white spot light is situated on one side of the tank, above a tall basking spot; this lets the reptile regulate their body temperature. When the reptile is cold, they'll move toward the warm end, if they get too warm, they move to the cooler end (this is why a large cage is necessary for many reptiles. In small cages, they can't move far enough away from the heat). UV is provided by a strip light stretching across the back of the tank. Since these two lights recreate the sun, they stay on for only 12 hours.

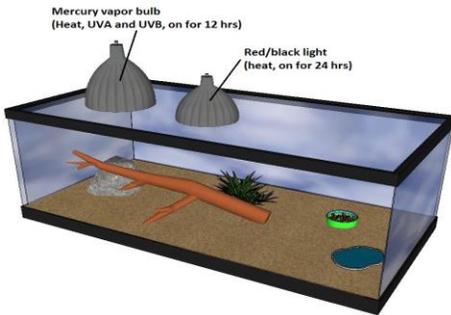


TIP: A plug-in timer is really useful to automate your lighting. Set it to go on at 8 am and off at 8 pm, and you don't have to remember to do it yourself!

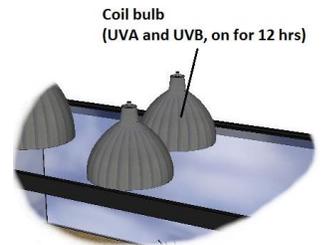
The red/black heat bulb boosts your temperature during the day, and prevents the cage from getting too cold at night. You can use either color. They do not produce a lot of visible light, allowing both the people and the reptiles to sleep.

The phosphorescent powder used in many strip UV lights will fade over time. The decline is gradual, and we often do not even notice the change until we install a new light. To ensure optimal UV output, replace your lights every 6 – 8 months.

Alternate UV setup: This is an alternate 3 light setup. The UV strip light is replaced with a coil UV bulb in a dome. This setup is more appropriate for a cage that is taller, as the coil bulb focuses the UV rays on a more focused spot; the wide strip light spreads the UV rays across the wider cage better.



Two light setup: This setup only uses two lights. The red/black heat lamp is the same as the other setup. This uses a mercury vapor bulb instead of the UV bulb; it produces a hot basking spot in addition to providing UV radiation. Mercury vapor bulbs do cost more to purchase, but, because they don't have a filament like incandescent bulbs, they last a lot longer and do not fade in intensity.



TIP: Get the longest life out of your bulbs by keeping handling to a minimum.

When the filament in a bulb is hot, it is very fragile. Before doing cage maintenance, turn your bulbs off and wait for 15 minutes before moving them. You can hang your lamps from a lamp stand. A lamp stand, like Exo Terra's Light Bracket, not only allows you to easily and gently move your lights, but you can also raise or lower the stand, adjusting your temperature as needed.

There are some great ways to supplement the heat your lights give. A combination of different heat sources is recommended to give your reptile plenty of places to raise his body temperature. Other heat sources include:

Ceramic heaters: These heaters can be used in place of the red/black heat bulbs. They produce no visible light, a lot of heat, and, since they do not use filaments like incandescent bulbs are very durable.



Heating coils: These flexible coils go under the cage, providing an extra source of heat in the cage. They can also be wrapped around cage furniture to give some extra heat where your reptile sits.

Heating pad: Like the coils, these provide an extra source of heat. They can be placed either under the cage or on the back of the cage to provide focused heat. Heating pads are not as drying as a heat lamp and better suited to amphibian cages.

Heat rocks: These were an older concept in heating reptile cages. Although they are still on the market, we do not carry them, as a reptile cannot regulate their temperature. They're either on the rock, and can get too hot, or they're off the rock, and can get too cold.

TIP: Use a thermostat, like R-Zilla's Temperature Controller, to help automate your temperature control. Plug your heating elements in the controller, place the temperature probe, set the temperature to the range you want, and it helps maintain the proper temperature in the cage!

How warm is warm?

This chart provides some basic information on the best temperatures by habitat:

Habitat type	Average Temperature Range	Average basking Temperature	Humidity Level
Desert	65 - 85°	90 - 110°	10 - 30%
Temperate	65 - 85°	90 - 100°	30 - 50%
Tropical	70 - 85°	85 - 95°	50 - 80%
Semi-Aquatic	60 - 75°	80 - 95°	50 - 80%

There are exceptions, though. The crested gecko is a tropical reptile, but it lives in what are called cloud forests. These regions exist at the tops of mountains in tropical rainforests where it is very humid but a lot cooler than it is lower down. *Know your reptile – research online, check out our other care sheets, and stop by to talk with our trained staff, and the best temperature they need to stay healthy.*

The season also plays a vital role. In winter, the amount of sunlight decreases and, even though the temperature stays the same in the cage, this can trigger an artificial hibernation in your reptile. If not prepared properly, a reptile is at risk of starving during the winter months. Our advice is to, when the days start getting shorter, to increase the overall temperatures in your cage by about 10 degrees. This will help keep their metabolism moving and keep them healthy.

What wattage light to use? This is a question we get every day. Our standard answer: “The wattage is not as important as the results you get.” If you keep your house extra cold, you may need a higher wattage. Warmer, sunnier locations may get away with a lower wattage.



TIP: Don't attach a thermometer to the cage. Keep it so that you can move it around. Place it in the basking spot and check the temperature after an hour or so. Move it to the warm side and the cold side and record your temperatures. If you need it warmer, upgrade to a higher watt bulb.

A digital thermometer is highly accurate and the only way to ensure that you are providing enough warmth for your reptile.

Both lighting and heat play a vital role in your reptile's health. If they stay too cool for too long, their metabolism begins to slow down and they can begin to suffer nutritional deficiencies. Providing the lighting and temperature appropriate for your species of reptile is key to keeping them healthy and thriving in your home! Reptiles vary widely in their UV light requirements, but one fact is common to all species: they are all adapted to natural sunlight, and there is no way that you can exactly replicate their natural environment in captivity. However, with the right knowledge and set-up, you can copy it as closely as possible.

Nutrition:

We know that good health begins with the diet. Many new reptile owners find themselves overwhelmed with the choices and options, especially when it comes to supplements. Other reptile owners find themselves stuck in a rut, feeding only one or two foods that are most convenient.

Proper understanding of reptile nutrition is a vast, complicated subject that requires a lot of study and understanding of physiology and chemistry. But we have to remember that in the wild wildlife does not need supplements. Their diets are varied, depending on the season and the region of the world they live in. The carnivores and insectivores are randomly

eating prey that is "gut loaded" with everything imaginable found in nature. Herbivores also are daily eating a varied diet, vegetation that hasn't been washed or commercially grown adding beneficial micro nutrients.

We're going to cover some of the basics and most important topics of this subject here, but the most important fact to keep in mind is that no one food has all the nutrition a pet needs, so offer a lot of variety.

As always, consult your reptile veterinarian for any specific questions relating to your reptile's health and diet.

Reptiles fall into four categories: carnivores (meat eaters), insectivores (insect eaters), herbivores (vegetable eaters), and omnivores (eating both meat and veggies). Research your specific reptile or amphibian to find the optimal diet for them.



Bearded dragons, a very popular omnivore

Veggies: Offer a wide variety of different dark, leafy greens. Our favorite veggies are brightly colored, grated squashes, red bell peppers, carrots and sprouts. Our favorite leafy greens: romaine lettuce, beet greens, kale, turnip, collard, mustard greens, and dandelion greens. Some vegetarians, such as tortoises and uromastix love an occasional flower, such as dandelions and hibiscus, as an occasional treat.



Keep some foods to a minimum (if you feed them at all): spinach, chard, parsley, carrots, and beet roots. These foods contain oxalates that can prevent calcium from binding into their bones and cause kidney problems if fed in high doses. It is not recommended to feed iceberg lettuce, as it is mainly water with little nutrition.

For a more detailed article on the veggies and fruits you can and cannot feed your reptiles, check out our [Your Herbivore and You](#) care sheet.



Fruits: Some herbivorous and omnivorous reptiles like an occasional piece of fruit as a treat; this could be a small piece of strawberry, apple, berries, or grapes. Each animal is going to have their favorite foods, but always offer them a lot of variety and choice. Fruits should be kept to a minimum, especially for desert reptiles, as they contain a lot of water and overfeeding can cause diarrhea. Diets high in fruits also tend to be high in phosphorus. (More on phosphorus later).

Feeder insects: For reptiles that need protein, we offer the following live foods:

Crickets: One of the most common insects used as a live food, as they are available in various sizes and are usually readily taken by reptile. Over time, only feeding crickets is thought to cause some nerve damage in your reptile due to a mild toxin in the insects. Over feeding can also lead to impaction and an overdose of phosphorus.

TIP: Do not put a lot of crickets in the enclosure at the same time; they can actually start to bite the reptile. Use a Cricket Keeper to house and feed your crickets, and feed only as many as your reptile can eat in a few minutes. The dark tubes in the Cricket Keeper are really handy, as the crickets hide in them; simply shake out a few to feed (or into a bag for shake and bake.)



Mealworms: larval form of the darkling beetle (*Tenebrio molitor*). They make a great addition to your reptile's diet, but there is concern that over-feeding mealworms can lead to impaction due to their hard exoskeleton.

Super worms: the larvae of a larger species of darkling beetle, these are another choice for feeding reptiles. Again, their hard exoskeleton could, if overfed, lead to a higher risk of impaction. Both mealworms and super worms are high in fat, and can lead to weight gain if over fed.



Waxworms: Larvae of the greater wax moth (*Galleria mellonella*), these grubs are higher in fat than most other insects. Feed as an occasional treat and a great way to put weight on undersized or wintering reptiles. They contain great nutrition, are very soft with no hard exoskeleton, so there is no risk of impaction, although over feeding could lead to weight problems.

Calci worms: Also known as phoenix worms, these are larvae of the soldier fly (*Hermeia illucens*). They are naturally high in calcium, which gets passed on to your reptile, reducing the need to supplement or gut load. They are very nutritious, low in fat, and their soft bodies reduce the risk of impaction.

Dubia Roaches: This beetle is very different from the roaches we see as home pests. *Blaptica dubia* makes one of the most perfect live foods to offer your reptiles. They are very nutritious, are not high in phosphorus like crickets, and produce very little odor and no noise. They also do not have a hard exoskeleton, meaning their risk of impaction is low.

Earthworms: These are considered an almost perfect food for most amphibians and some reptiles. They are very nutritious and easy to keep alive when kept cool in the fridge.

Red Wigglers: Smaller than earthworms, they are appropriate for smaller amphibians - and even many species of fish! Soil based worms, such as earth and red worms, are ideal for herps that are naturally found in soft damp earth such as box turtles and salamanders. Feeding soil loving worms can cause bacterial infections to animals who are not accustomed to a natural diet of worms such as arid or arboreal reptiles.

For a more complete breakdown of live feeders, including nutritional data, check out our [Live Feeders](#) care sheet.

Other sources of protein: Most carnivores would fare poorly if they were only fed insects their entire lives. Some reptiles such as bearded dragons and leopard geckos would occasionally in the wild eat a small rodent, and do well if occasionally fed a whole small pinky mouse. Whole, live fish, or frozen pieces of silversides, can be offered to many species of aquatic turtles to supplement their diet of pellets and greens.

Gut loading: You'll hear the term "gut loading" a lot. In nature, reptiles and amphibians are eating a wide range of insects that are, themselves, eating a wide range of foods. In captivity, that selection is more limited. We can give our pets a nutritional boost by feeding their insects healthy foods. Whatever they eat, the reptile winds up eating. Fluker's Orange Cube Cricket Diet is a great source of nutrition; orange cubes are convenient because they feed and hydrate your insects without spoiling or attracting fruit flies but offer little additional nutrition for herb. Feeding Fluker's dry cricket meal will offer multi vitamin and minerals. Use Fluker's Cricket Quencher to hydrate your insects. You can also offer veggie stems, apples, potatoes, carrots, and zucchinis for you insects to munch on.



Prepared foods: Pellets, like [Fluker's bearded dragon diet](#), are a convenient way to give your pet combined nutrition. Because most herps are not accustomed to eating commercial diet, they are colored to help encourage them to eat. Slowly introduce pellets sprinkled over preferred insects or chopped veggies and gradually increase the quantity of pellets. But again, pellets should be just one part of a balanced diet. One day give veggies, the next give veggies with pellets mixed in, the third day give pellets. Pelleted diets are available in formulas for most reptiles; choose the one appropriate for your species of reptile, and make sure it's the right size.



Supplements: In nature, reptiles and amphibians are exposed to a wide variety of food items, often much more varied and ultimately more nutritious than those diets fed to captive herps. We often need to give supplements to ensure great health. There is a great deal of discussion in herpetology about vitamins and mineral supplements. How much to give? With D3 or without? How much is toxic? Find the right amount that your reptile needs by consulting your reptile veterinarian.

Vitamins: A broad vitamin supplement focusing on much-needed vitamin A, meant to help fill in nutritional gaps in a favorite staple food. Well balanced, but most do not contain an adequate amount of calcium, so extra supplementation is needed.

Calcium with phosphorus: This is used for reptiles that do not eat insects, to give them that necessary nutrient. For omnivores and carnivores, crickets provide adequate phosphorus in their diet. Too much phosphorus will, over time, prevent calcium from being metabolized.

Calcium with vitamin D3: Phosphorus free calcium supplement, the vitamin D3 helps the body absorb the calcium. Given to most reptiles to ensure adequate levels, but, since vitamin D3 can be overdosed, it is often alternated with the calcium without D3.

Calcium without vitamin D3: Most frequently given to nocturnal or diurnal reptiles, as they get enough vitamin D3 for their limited needs from the intense UVB bulbs. It is also given to animals kept outside, as they get enough vitamin D3 from their exposure to the sun.



We recommend giving your supplements on the following schedule:

Day 1: vitamin powder Day 2: calcium powder Day 3: Nothing Repeat.

When feeding insects, use the "shake & bake" method: place your insects in a small bag, add a pinch of that day's supplement, close securely and then shake. Do this right before giving the insects; if you do it too long before hand, then powder will be cleaned off and not taken by your pet. Supplements can also be mixed into that day's veggies so your herp gets some in every bite; Simply putting it on top can cause some problems if your reptile avoids that piece of food.

Over time, a lack of vitamins and minerals can cause a lot of health problems for your pet, including metabolic bone disease, neurological and physical problems and even death.

Feeding snakes: Most carnivore snakes can be conditioned to eat fresh frozen defrosted foods. Feeding frozen foods is considered more humane, convenient and safer because due to possibilities in defensive wounds caused by its prey. While there is not a lot of choice in items to feed to snakes, there is an important tip to offer here: keep your snake friendly by not feeding them in their cage. When you offer them food by hand in their cage, they begin to associate the



warmth and smell of your hand with eating; this is a great way to train a snake to bite. Feed them in a dedicated feeding container. Place their food in a simple ventilated & secure plastic box, and then put the snake in. After the snake eats, return them back to their cage. Another good snake feeding technique is place your snake in a paper bag with its food, crease the bag shut and lay the bag on its side in the snake's cage. Once the snake eats and feels ready, the snake will push itself through the opening of the bag. While their food is defrosting is a great time to give the snake a soak in warm water.

We often get asked "What is the best diet to feed my reptile?" The best answer is that there is no one perfect food that has complete nutrition, so offer a wide variety to keep your reptile healthy. Understand what the species specific diet for your herp in the wild would be, and duplicate it as closely as possible.

Housing and equipment:

The most important and basic decision, once you have decided on the right reptile for your lifestyle, is the cage they are going to live in, and what we need to make sure they thrive in our care.

Cages: The terrarium is the most important piece of equipment for your reptile. This is where they are going to be spending almost all of their time in there, it will help maintain the proper temperature and humidity, and show off your pet!

We're always asked "what is the best cage to get?" Our standard answer is: "Always go for the largest cage that fits your budget and your home." Both are important considerations, and keep in mind the time the pet will be spending in there, and their final, adult size. For some animals, such as a bearded dragon, it's best to get their adult sized cage in the beginning; you'll be buying it soon enough, and it'll save you money in the long run.



There are a lot of choices and sizes in terrariums, so you have to know your pet's needs to provide the best home for them. Some reptiles, like bearded dragons, need a larger footprint, so you'd go for a short terrarium that is wide. Some arboreal reptiles, such as chameleons, need to be able to climb, so you'd go for one of the tall cages.

Instead of using a terrarium, many house their pets in a Critter Cage by R-Zilla. They are made like an aquarium, but, since they don't hold water, the glass is thinner and lighter. They have the added benefit of a secure screen top with safety latches. These cages are best for more terrestrial animals like a bearded dragon, as they are wide than they are tall.



For aquatic turtles, it's important to note that you cannot use regular terrariums or critter cages. The weight of the water can damage the seals or crack the glass, leading to a leak. It's best to use either a regular aquarium or a special turtle tank - with their half wall it makes it easy to add a hang on the back filter to keep the water cleaner.

Speaking of aquatic turtles, one of our favorite accessories for them is the [Zoo Med Turtle Dock](#). This clever basking spot attaches with suction cups to the wall, but the self-leveling platform can move up and down with the water level. It's a great way to let your turtle get out of the water, dry out and warm up.



Decorations: This is the fun part of owning a reptile! Decorations not only make your reptile's cage look really cool, they can actually provide some benefits to your pet. It gives them a cover to hide under, providing emotional comfort. Many arboreal reptiles need to be able to hide among branches and leaves; they can become very stressed if they have to sit out in the open. For basking reptiles, a tall branch or secure stone allows them to get closer to the source of heat.

Plants: You can use real and/or plastic plants to decorate your terrarium. Real plants give an authentic look, but can require more maintenance when cleaning the cage. We like to keep real plants in pots, as it makes it easier to take them out for cage changes. A small potted palm or ficus can really make a tropical reptile's terrarium pop! Make sure any plant that could be eaten is non-toxic for your reptile.

If you want an easier route, try artificial standing plants. With a weighted base, they're easy to use in terrariums and look great - there's even cacti and succulents for desert reptiles. They're also easy to clean and disinfect.



With a wide range of species and sizes, plastic hanging plants make great hiding places for arboreal species; they can be suction cupped to the wall of the tank, or, for a realistic look, be twined around branches. These look best in tropical cages and are much easier to clean and sanitize.



Branches: Either real or artificial branches can be used in your cage. Use wood specially prepared for reptile cages, such as grape vine and Mopani wood, as pieces from outside can be contaminated with pesticides, parasites, and pollution. Artificial vines, like [Exo Terra's Jungle Vine](#) can be twisted to mimic a real jungle vines (and they're waterproof, so they can be used in fish tanks and amphibian habitats, too.)

Huts, caves, and hides: Many reptiles and amphibians like to hide, as it gives them a sense of security. Make it look as real as possible with ones made of wood or that mimic stone, like [Exo Terra's Gecko Cave](#) or go for a really cool look with their [primate skull](#), crocodile, or buffalo skull.



Make sure your decorations are safe! Look for loose strings or wires, as these can catch and injure toes. Be sure all branches and rocks are stable, to prevent falls or crushing risks. Tip: Use aquarium safe silicone to glue rocks together in a stable pile to make a platform. Check the security of your decorations on a daily basis, especially if your reptile is more active.

Water features: Water features do more than just provide your reptile with water for drinking or soaking; they also increase your ambient humidity and can really complete your cage's look.



Waterfall: Because of its unique design, it can be installed anywhere in the terrarium and provides both clean drinking water and another way to increase humidity. Water circulation is provided by the included pump in the base. The waterfall consists of several parts to facilitate cleaning, and is easy to sanitize.

Drippers: Arboreal reptiles generally do not recognize motionless sources of water; instead they drink from moving dewdrops and raindrops while foraging in the forest canopy. We have a couple of ways to provide this much needed moisture. The Zoo Med Drippers simulate natural rainfall and provide humidity for captive reptiles. Use a pan in the bottom of the cage to catch the water (we like to use a cat litter box). Simply fill the Dripper, set it on top of your cage, and set the valve to control the rate that water drips down plants. Empty the pan and refill the dripper as needed.



This cool new product by Exo Terra looks like a natural plant, but is actually a cleverly disguised watering system. The water is pumped up from a dish and drips down the leaves, providing much needed water to animals such as chameleons.

Cool time (and money) saving tools:

Repti-fogger: This is one of our favorite ways to help add humidity to your tropical reptile. The large reservoir gives you several days of use before refilling. It uses an ultrasonic transducer to create a fine fog that then blows into your terrarium through the included tube. Plug this unit into the Zoo Med's HygroTherm™ Humidity and Temperature Controller for precise humidity and temperature control, or a timer to automatically run the fogger. Be sure to use distilled water, and check to make sure that moisture is not building up on the bottom of the cage.



Lamp stands: One of our favorite money savers. As we mentioned before, when bulbs are hot, their filament is very fragile and breaks easily when you move it. By hanging your lamps from a stand, they don't get bumped around, saving you a lot in replacement bulbs. Lamp stands also give you a little more control over your temperatures, as their adjustable arms allow you to move your bulbs closer to or further away from your reptile as needed.

Not exactly a tool, but we believe our Bug Club cards are a valuable addition to your reptile's care program. They save you a lot of time, since you don't have to stand in line at the register when getting your bugs. They also save you money, as each card is cheaper than buying insects each time. Simply buy a card (a 300 insect card for \$25, 500 insect card for \$40, or 1000 bug card for \$70) and we scratch off how many insects you get each time. A lot of parents love the club, as their kids can come get food for their reptile and they don't need to carry money. The card can be used for crickets, waxworms, mealworms, super worms, and Calci worms.

Designing the cage is often considered one of the most enjoyable parts of keeping reptiles and amphibians. With the proper cage, accessories, and knowledge, you'll have healthy and happy pets that thrive in your home.