

## Leopard Gecko (*Eublepharis macularius*)

**Difficulty:** Easy

Leopard geckos are small, 7-10" lizards with a squat body, pebbled skin, short legs, and a plump, segmented tail. Although they are geckos, they are unique from other geckos in that they have eyelids and can't walk up walls. Wild leopard geckos are typically dull yellow with brown or black spots and a creamy belly, but morph breeding has led to captive-bred leopard geckos being available in a variety of different colors and patterns.

Leopard geckos are native to semi-desert and arid grassland areas of Afghanistan, Pakistan, India, and Nepal. The spotted pattern which serves as their namesake also serves as camouflage among the packed earth, rocks, dry grasses, and shrubs characteristic to the landscape.

With good care, leopard geckos typically have a 15-20 year lifespan, although there are known cases of geckos that have lived longer. Due to their manageable size, relatively simple care requirements, and tolerance toward humans, leopard geckos are popular first-time reptiles.

### Shopping List

- Front-opening 36" x 18" x 18" glass terrarium
- 75w halogen heat bulb
- 5.5" dome lamp with ceramic socket
- Plug-in lamp dimmer
- T5 HO forest UVB bulb, 12"
- 14" T5 HO fluorescent hood, with reflector
- Plug-in light timer
- Infrared thermometer
- Digital thermometer/hygrometer
- 2-4" naturalistic substrate
- Flat basking rock
- Hides/caves (at least 2)
- Spray bottle
- Food and water dishes
- Calcium supplement powder w/low D3
- Multivitamin supplement powder

### Housing

Leopard geckos may seem small, but they still need an enclosure that is large enough to give them adequate opportunity to explore, hunt, and generally exercise natural behaviors. They are also terrestrial, which means that they are a ground-dwelling species, and generally prefer terrariums that are wider than they are tall. This is why the minimum recommended enclosure size for a single leopard

gecko is 36" L x 18" W x 18" H. If possible, larger is always better. Although they are terrestrial, leopard geckos naturally dwell in rock stacks and are skilled climbers.

### **Can multiple leopard geckos be housed in the same enclosure?**

Although there are instances of multiple females or even one male and several females being successfully kept together, this requires a larger enclosure and particularly careful husbandry. If the geckos don't get along, they can fight and severely injure one another. This is why cohabitation is not recommended for novice keepers.

*Males should never be housed together!*

### **Lighting & UVB**

Leopard geckos are crepuscular, which means that they are active at night, but mostly around sunset. This means that they are likely to prefer cooler temperatures, are exposed to low levels of indirect UVB during the day, and have exceptional night vision. All lights should be on for 12 hours/day.

#### **UVB Lighting**

Leopard geckos are capable of surviving without UVB lighting as long as they receive a high-D3 calcium supplement, but are most likely to thrive when UVB is provided. In order to get the right strength of UVB (measured by UV Index, or UVI), distance and obstructions must be considered.

- Lamp placed over mesh: Zoo Med ReptiSun T5 HO 5.0, 12"
- Lamp installed under mesh: Arcadia ShadeDweller Kit, 12"

The gecko should be able to get no closer than 10" to the lamp.

Albino, patternless, and other less-pigmented morphs are more sensitive to (and can be burned by) excess UVB. If your gecko fits this description, a 26w compact coil Zoo Med Reptisun 10.0 is likely to be most suitable, at a distance of 11-14".

*(These recommendations are approximations. It is strongly recommended to use a Solarmeter 6.5 to determine the best placement to achieve a UVI of 1.0-2.0 in the basking area for normally-pigmented geckos. If less pigmented, aim for between UVI 0.5-0.7.)*

### **Heating**

Humans are *warm-blooded*, which means that our body temperature is automatically regulated.

Leopard geckos, however, are *cold-blooded*, which means that they have to move between areas of different temperatures to regulate their body temperature. In the wild, leopard geckos warm up during the day by sleeping in a warm burrow or patch of sunlight. In captivity, the best way to replicate the warming effects of sunlight is with a heat lamp.

- **Basking surface temperature:** 94-97°F (34-36°C)
- **Warm hide temperature:** 90-92°F (32-33°C)
- **Cool zone temperature:** 70-77°F (21-25°C)

At night, leopard geckos can tolerate a drop in temperature down to 60°F (16°C).

Generally speaking, a 75w reptile halogen heat bulb should be plenty. However, if you notice that the basking area is too warm, dial down the heat with a plug-in lamp dimmer or switch to a lower wattage bulb. If your basking area is too cool, you will need a higher wattage bulb.

Place one of the hides (I prefer the rectangular black box hides for this) directly under the heat lamp and place a slab of stone like thin flagstone, aquarium slate, or slate tile on top to create a basking spot. The hide underneath will be the warm hide. The heat lamp should be able to heat the warm hide to the target temperature, but this can vary depending on room temperature, thickness of the rock, etc.

If your warm hide is not getting warm enough, add a thermostat-regulated heat mat under the hide box, covered with 1" of substrate to prevent direct contact. Place the thermostat probe inside the warm hide to regulate temperature.

To measure the general temperature of different areas of your terrarium, use an infrared thermometer (a.k.a. temperature gun). To passively track basking temperature, use a digital probe thermometer, with the probe placed on the basking surface under the heat source. The [Etekcity 774](#) is a good infrared thermometer, and most reptile-brand [digital probe thermometers](#) function well.

## Humidity

Leopard geckos do best in a low humidity environment, with free access to pockets of higher humidity. **Ideal average ambient humidity is 30-40%.** Humidity levels that are consistently too high or low can cause health problems for your gecko. However, it is natural for humidity to be lower in the warm area and higher in the cool area. It is also normal for humidity levels to rise at night and fall during the day.

That being said, it is important to your gecko's health to provide them with **access to an area of 70-80% humidity**. This can be done with a "humid hide" — a cave or hide with moistened substrate, placed on the cool end of the enclosure. This helps your gecko shed successfully and stay hydrated.

You can monitor humidity levels in your humid hide with a [digital probe hygrometer](#). Increase humidity levels by adding water to the substrate below with a spray bottle.

## Substrate

Providing substrate for leopard geckos is a controversial issue, but the short of it is that as long as a naturalistic substrate is used, and the gecko is adequately heated, hydrated, has access to UVB, and is otherwise healthy, there's nothing to be worried about.

For leopard geckos, it's best to use a well-drained, soil-like substrate that is similar to what is found in their natural habitat. Here are a few options:

- [DIY arid mix: 40% organic topsoil, 40% play sand, 20% Zoo Med Excavator Clay](#)
- [Lugarti Natural Reptile Bedding](#)
- [Zoo Med ReptiSand](#)
- [Exo Terra Desert Sand](#)
- [The Bio Dude Terra Sahara](#)

Feces and urates should be removed daily, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced once every 3-4 months.

## Décor

Decorations play a vital role in your leopard gecko's enclosure as environmental enrichment. Enrichment items encourage exercise, stimulate your pet's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nicer! Without décor, your leopard gecko's terrarium is just an expensive box of dirt.

Hollow logs, thick branches, ledges, and artificial or drought-resistant live plants work well as décor in a leopard gecko terrarium. You can also provide additional hideouts. Arrange these items in a way that encourages your gecko to climb and explore, and provides a variety of places to sleep in during the day.

## Food

Leopard geckos are *insectivores*, which means that they eat primarily insects. In fact, they don't eat anything but insects! How often leopard geckos need to eat depends on age: The general rule is to offer 2 appropriately-sized bugs per 1 inch of your leopard gecko's length, or however much they can eat in 15 minutes. Juveniles should be fed daily, and young adults fed every other day/every 3 days. Adults whose tail is fatter than their neck can be fed every 5 days.

Feeder insects: crickets, dubia roach nymphs, discoid roach nymphs, red runner roaches, black soldier fly larvae, mealworms, darkling beetles, hornworms, silkworms, grasshoppers

The key to providing a healthy, balanced diet for your pet is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier pet that always looks forward to mealtime.

## Supplements

All insect feeders should be lightly "dusted" with calcium powder to balance the calcium-phosphorus ratio. Multivitamin powder can be used every once in a while to provide extra nutrients. All-in-one powders provide a balanced dose of both at once.

There are many options in terms of supplements, but [Repashy CalciumPlus LoD](#) and [Arcadia EarthProA](#) are both solid all-in-one supplements. For best results, use as directed by the label.

For more information about leopard gecko care, read the full-length [Leopard Gecko Care Guide](#) at [ReptiFiles.com!](#)