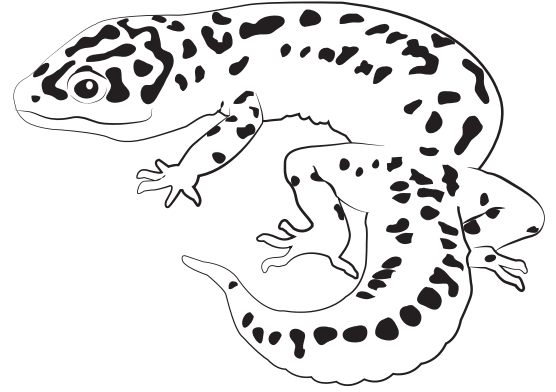


Happy National Reptile Day!

Box turtles, skinks, and snakes are all reptiles that are local to our area. Celebrate these Maryland natives with this backyard experiment. If you find any wild reptiles during your trip, remember to leave them alone. It is okay to look, but please don't touch!



Collect

- Outdoor thermometer
- Notebook
- Pen or pencil

Identify your testing areas

- Visit a park, take a walk around your neighborhood, or check out your own backyard. Look for areas that have different surfaces. Think about which surfaces might absorb heat faster or hold on to heat longer. Try to find areas that are paved with asphalt, brick or concrete, as well as natural surfaces such as grass or bare dirt.
- Choose four different locations and write them down in your notebook.

Take the temperature

- Record the air temperature at three different times during the day. We recommend once in the morning, afternoon, and evening.
- After each air temperature reading, take the thermometer to the testing areas to record the temperature. Each time you take a reading, you should also take note of whether or not the area is sunny or if it is in the shade.
Hint: To get a more accurate reading, wait 5-10 minutes in between measurements to allow the thermometer to return to normal air temperature.

Compare your results

Think about the places you tested in this experiment.

Which areas had higher temperatures?

Why do you think some areas were cooler than others? What time of day was the highest temperature recorded?

The Perfect Environment

Reptiles are ectothermic, which means that they get their heat from their surrounding environment. This means that their body temperature is dependent on the temperature of their environment. Since a reptile can't regulate its own temperature, if it gets too hot or too cold it must move to an area that is cooler or warmer. When do you think you would find a reptile in a warmer area? When do you think you'd find a reptile in a cooler area?

Humans are considered endothermic. We produce our own heat by burning the energy that we get from the food we eat. We can regulate our own body temperature, so our temperatures stay fairly consistent regardless of our surrounding environment.