## **HIBERNATION**

Hibernation is a state of inactivity and decreased metabolism in some endotherms\*, such as bats.

Hibernation usually takes place during extreme cold temperatures when the body decreases body temperature and slows heart rate and breathing to conserve energy.

\*Endotherms (warm-blooded) regulate body temperature internally. Humans are endothermic.



## **AESTIVATION**

Aestivation refers to a state of inactivity in ectotherms\* that occurs during extreme warm temperatures. Box turtles will aestivate in shallow depressions in the topsoil or litter that they will dig themselves or make use or existing holes. This allows them to stay moist and cool.

## **BRUMATION**

Brumation is a hibernation-like phase of inactivity in ectotherms during extreme cold temperatures. Box turtles will bury themselves in leaves or soil to keep warm during cold winter months. Depending on the extremity of the temperatures, a box turtle may burry itself fully or just partially.

\*Ectotherms (cold-blooded) depend on external sources to regulate body temperature. Most reptiles function as ectotherms.