

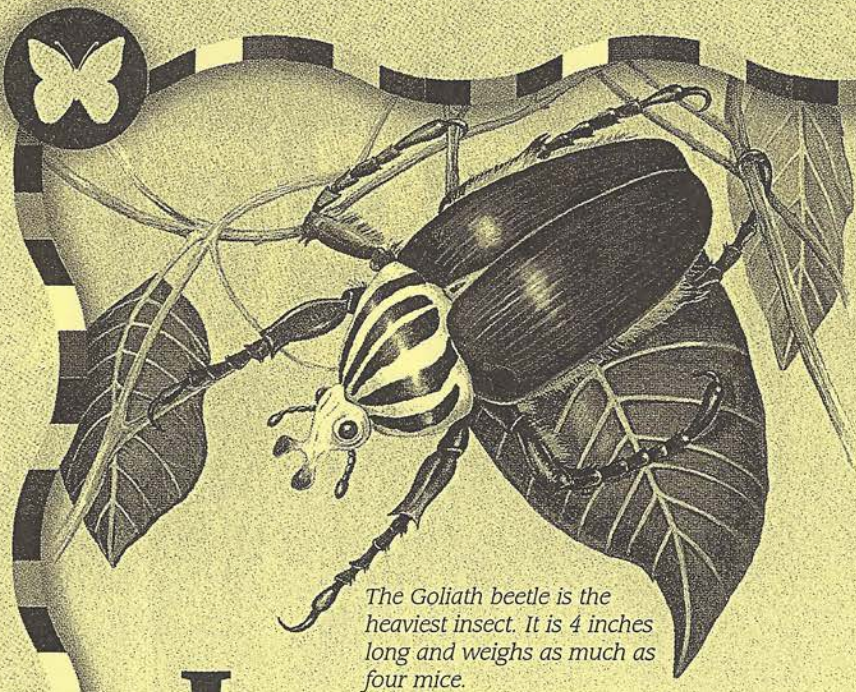
# INSECTS

Pull-Out Storybook



spider  
d into  
animal





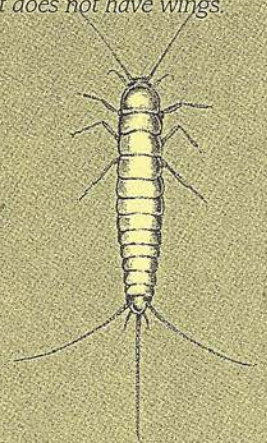
*The Goliath beetle is the heaviest insect. It is 4 inches long and weighs as much as four mice.*

**I**nsects make up the largest animal group in the world. How do you know that you are not an insect? The easiest way to tell is to count your legs. An insect has six legs. It also has three main body parts—head, chest and abdomen. Insects usually have two antennae on their head. Most insects have wings, but some do not. The wings and the legs are attached to the chest.

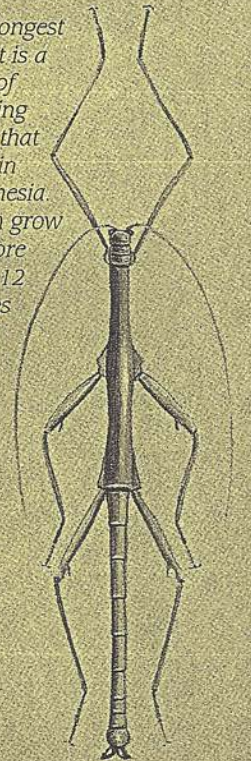
*There are about 20,000 different kinds of butterflies.*



*The silverfish is an insect that does not have wings.*

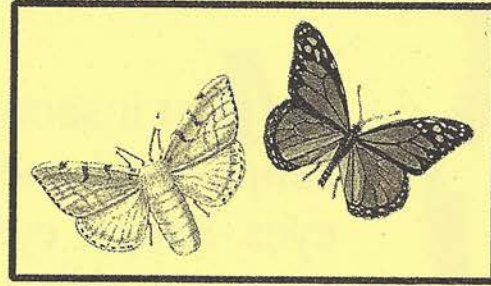


*The longest insect is a type of walking stick that lives in Indonesia. It can grow to more than 12 inches long.*



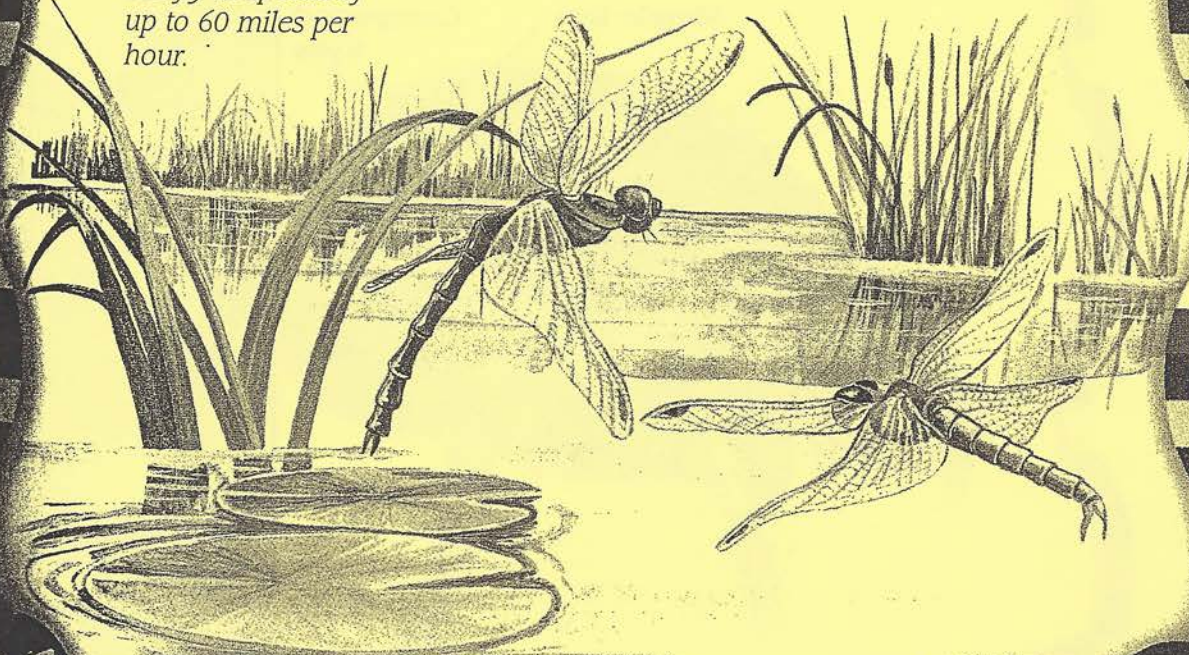


*The wings of moths and butterflies are made up of tiny overlapping scales.*



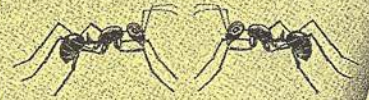
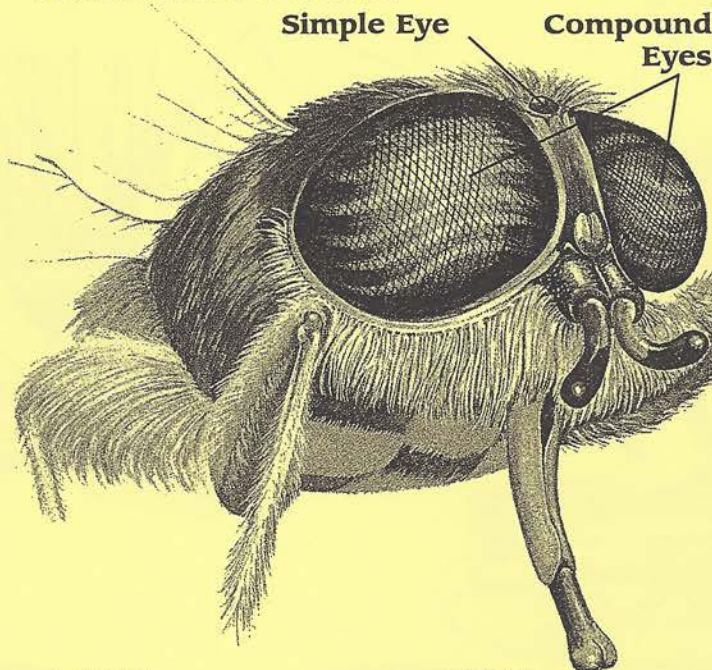
**M**ost insects have two pairs of wings for flying. Insects fly for many reasons—to find food, to look for a place to live, to escape from danger and to find mates. Insects need to warm up their flight muscles before they can fly on cold days. Some insects open their wings to let the sun heat them. Others move their muscles very fast to get them going.

*Dragonflies are the fastest insects. They can fly at speeds of up to 60 miles per hour.*





**M**ost insects have both simple eyes and compound eyes. Simple eyes see only light and dark. Compound eyes are made up of many little eyes. Each little eye sees something different. Together, the insect sees the whole picture. Insects have tiny hairs on their bodies that sense sound and air movement. Insect antennae also have hairs. Insect antennae can sense touch, smell and sound.



*When ants meet, they touch each other's antennae. In this way, they can sense whether they are from the same nest.*



*The tiny hairs covering a bee's body help it judge air currents when it is flying.*



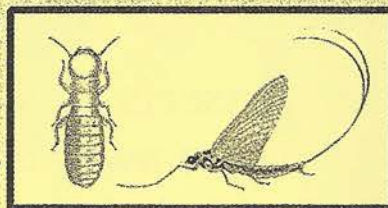
*A cricket has its ears on its front legs. They vibrate when sound waves hit them.*



*Using its antennae, a male moth can smell a female moth that is a mile away.*



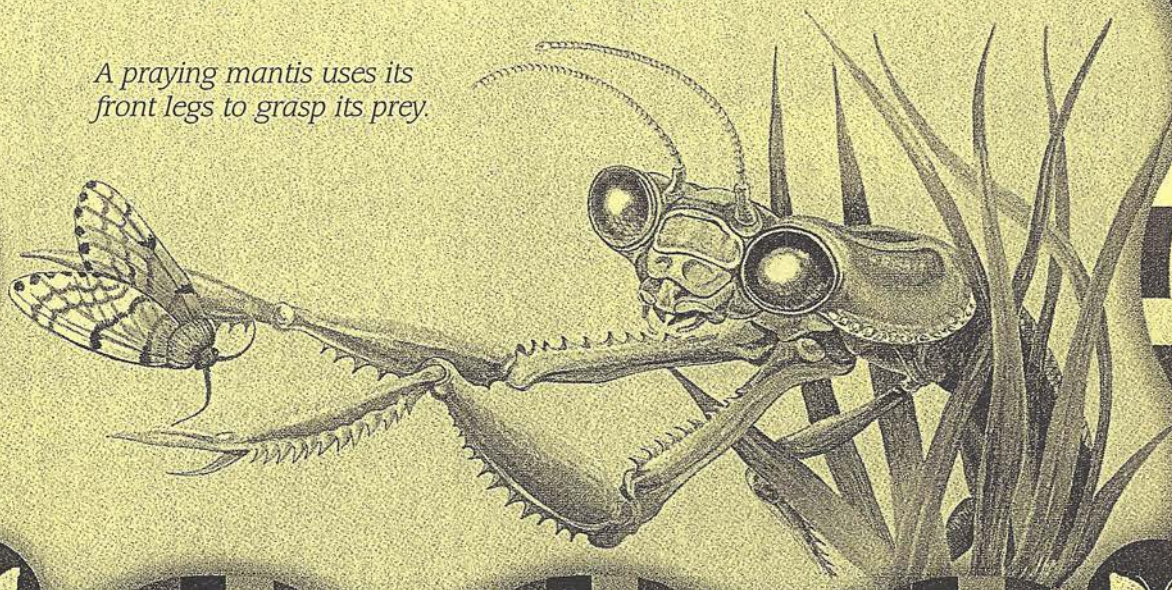
*Some termites feed on wood  
and can damage buildings.*



*An adult mayfly lives for  
only a few hours or days.*

**I**nsects have different types of mouths, depending on the food they eat. Some insects chew plant or animal food. These insects have strong jaws for cutting and grinding. A praying mantis, for example, has chewing mouthparts. It also uses its front legs to hold its food. Other insects, such as butterflies, drink their food. They have special mouthparts for sipping. Still others, such as mosquitoes, have piercing mouthparts that let them suck fluids from their prey. Mayflies are insects that do not have mouthparts. They live only long enough to mate and lay eggs.

*A praying mantis uses its  
front legs to grasp its prey.*



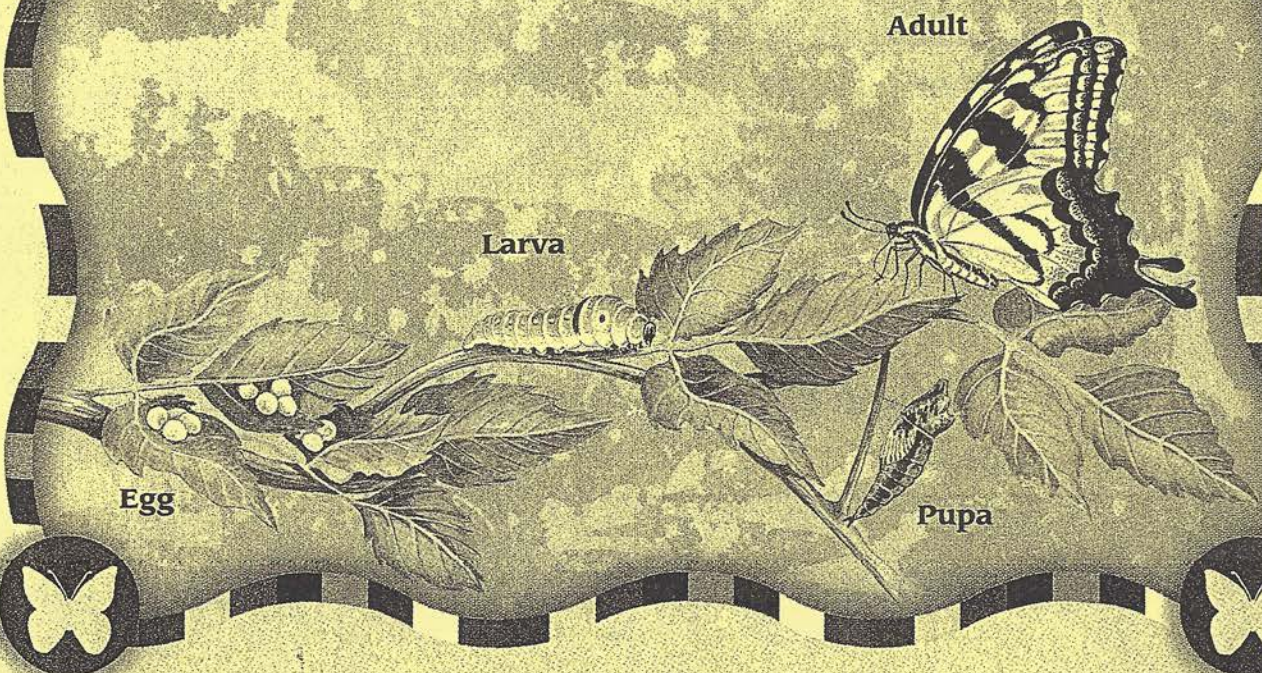


**I**nsects have tricks to help them hide or scare away enemies. Some insects blend in with their surroundings. They look like leaves, flowers, twigs or bark. Other insects, such as butterflies, have spots on their wings that look like eyes. Enemies stay away from them because they look like larger animals. Insects also have tricks for finding mates. Some give off a special odor. Others, such as crickets, make sounds. Fireflies flash signals to each other.





**M**ost insects lay eggs. For many, the young that hatch from the eggs look like wingless adults. These young are called nymphs. A nymph eats, grows and molts, or sheds its outer layer, until it is an adult. Other insects, such as butterflies, go through a metamorphosis (meht uh MOR fuh sihs), or complete change. A caterpillar hatches from the egg. It eats and grows and eats and grows. Then, it makes a hard case, or cocoon, around itself. While inside the cocoon, the insect is called a pupa (PYOO puh). After great changes, the pupa becomes an adult. Finally, the adult crawls out of the case.





**I**nsects are divided into many different groups. Beetles are the largest group of insects. There are about a half million different kinds of beetles. Insects have been around for a very long time. They first appeared on Earth over 100 million years before dinosaurs. Today, insects live all over Earth—from the poles to swamps to forests to deserts.

**Butterfly**

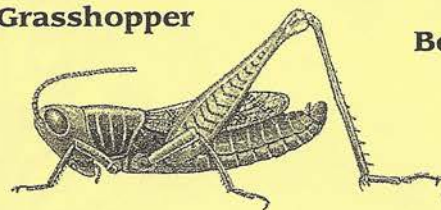


**Earwig**

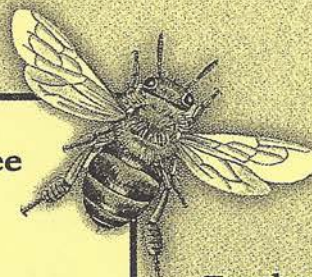


Although most insects are helpful, some can be harmful. Some spread disease, and others destroy crops or buildings. Helpful insects eat harmful insects, provide food for other animals and pollinate, or fertilize, flowers.

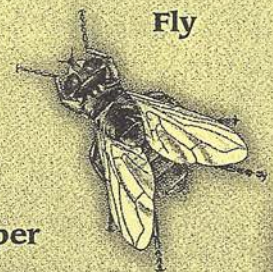
**Grasshopper**



**Bee**



**Fly**

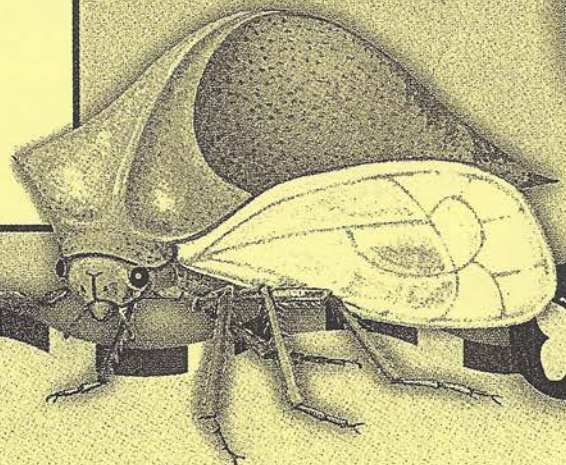
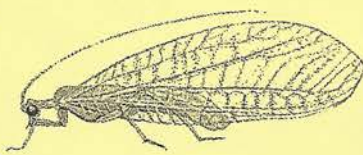


**Treehopper**

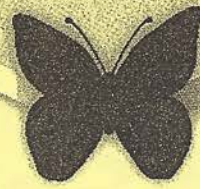
**Ladybug**



**Lacewing**

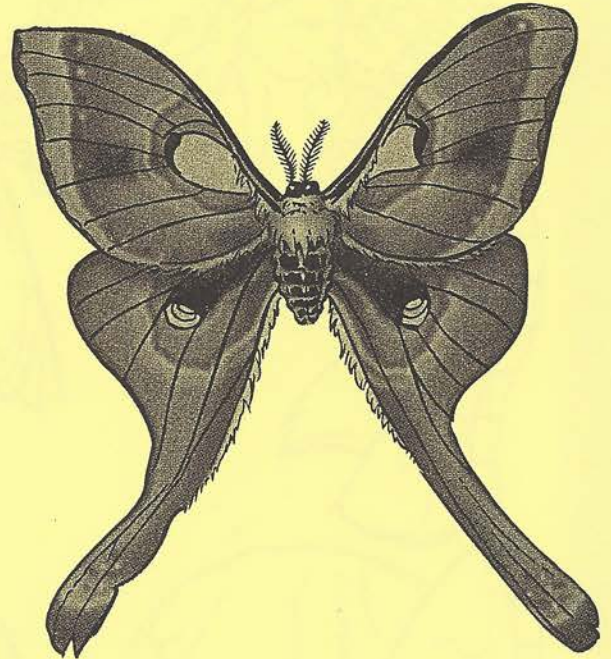






# Moth

Moths are closely related to butterflies. Butterflies and moths are so much alike that it is sometimes hard to tell them apart. Unlike butterflies, moths have chubby bodies and usually fly only at night. Moth antennae look feathery. The antennae give moths their senses of touch and smell. Moths cannot bite or chew. They have a mouth that looks and works like a drinking straw. Moths eat sap and nectar.



Moths are found everywhere. They have many enemies, such as frogs, birds, snakes and spiders. Some moths protect themselves by flying away. Others blend into their surroundings. Some moths taste so awful that other animals leave them alone.

## Think and Learn

1. Moths are closely related to \_\_\_\_\_.
2. When do moths fly? \_\_\_\_\_
3. Moth antennae look \_\_\_\_\_.
4. What are some enemies of moths? \_\_\_\_\_  
\_\_\_\_\_



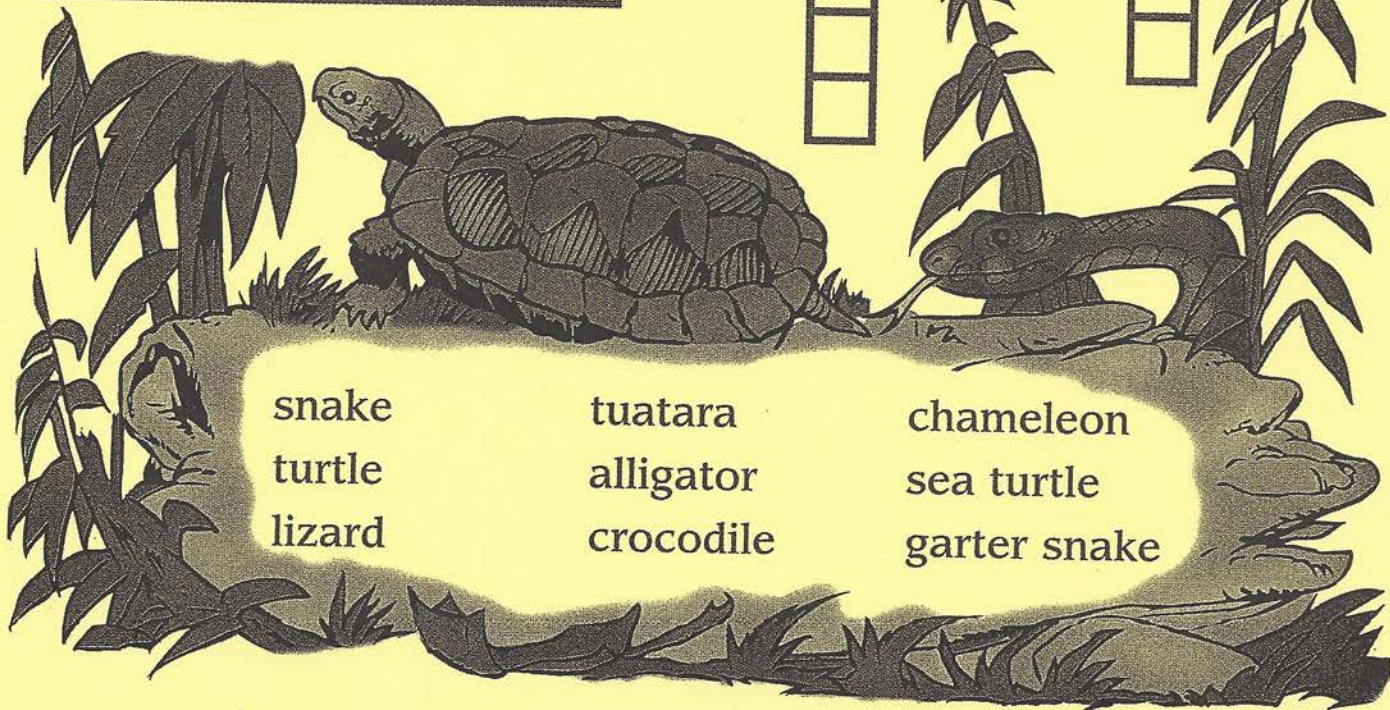
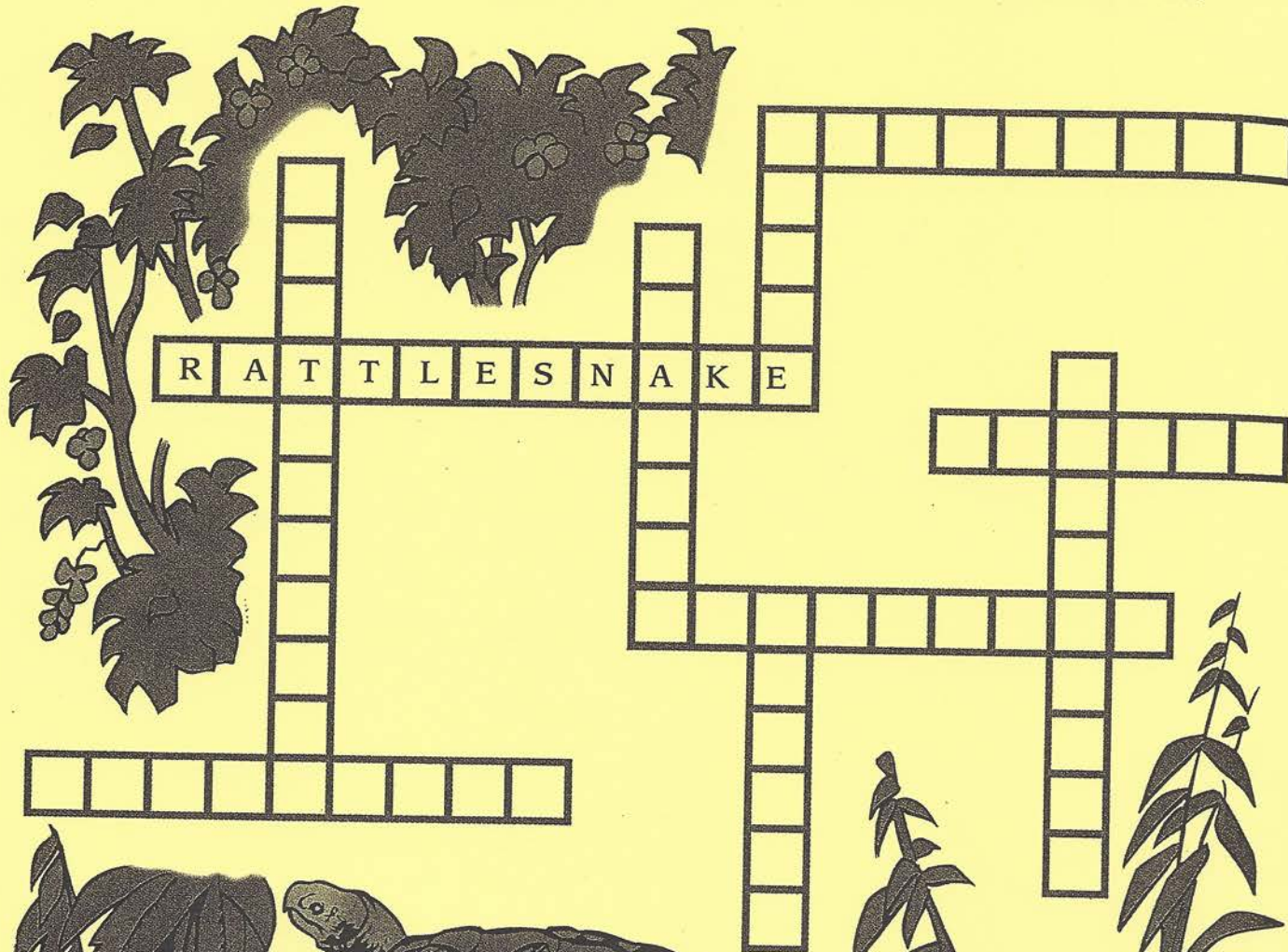






# Reptile Puzzle

Fill in the spaces of the puzzle with the correct animal name.



snake  
turtle  
lizard

tuatara  
alligator  
crocodile

chameleon  
sea turtle  
garter snake