

Aquatic Insect Investigation!

Name:

Circle the insects/water creatures you found:



water boatman



dragonfly nymph



mosquito larvae



damselfly nymph



caddisfly larvae



stonefly nymph



water beetle



mayfly nymph



scud/fairy shrimp



water strider



minnow



pond snail

What was the best ADAPTATION you saw?

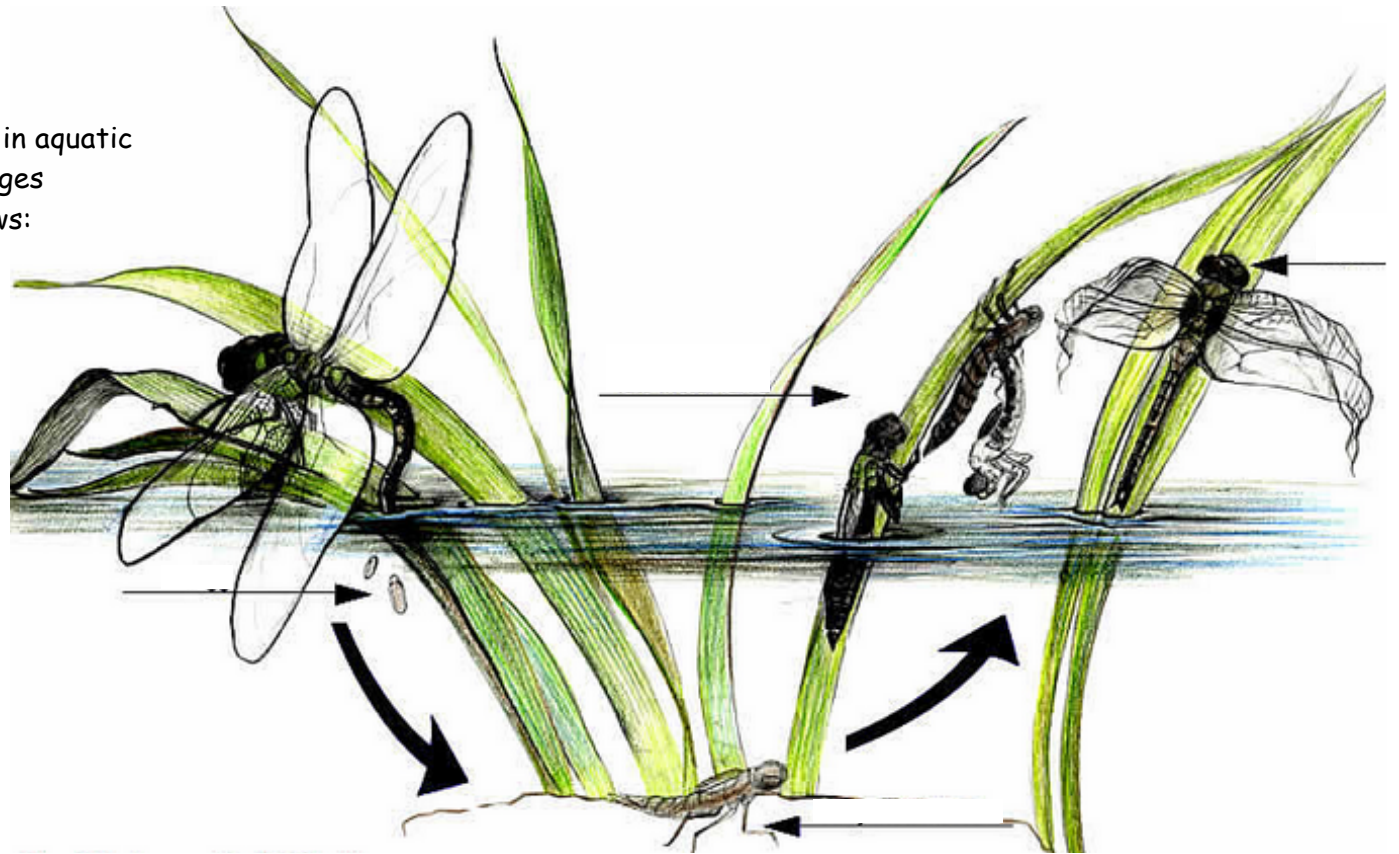
Draw your own insect! What kinds of adaptations would it have?

Name your insect:

Lifecycle of a Dragonfly

There is a lot of change that happens in aquatic environments! Label the different stages of a dragonfly's life at the small arrows:

What do dragonflies eat?



Pond Food Chain

Scientists use aquatic insects as an **INDICATOR** of pond or stream health!

That's because they are important part of the **FOOD CHAIN**.

Draw the different parts of a pond food chain below:

Algae

Mayfly Larvae

Water Beetle

Fish

Waterscope down

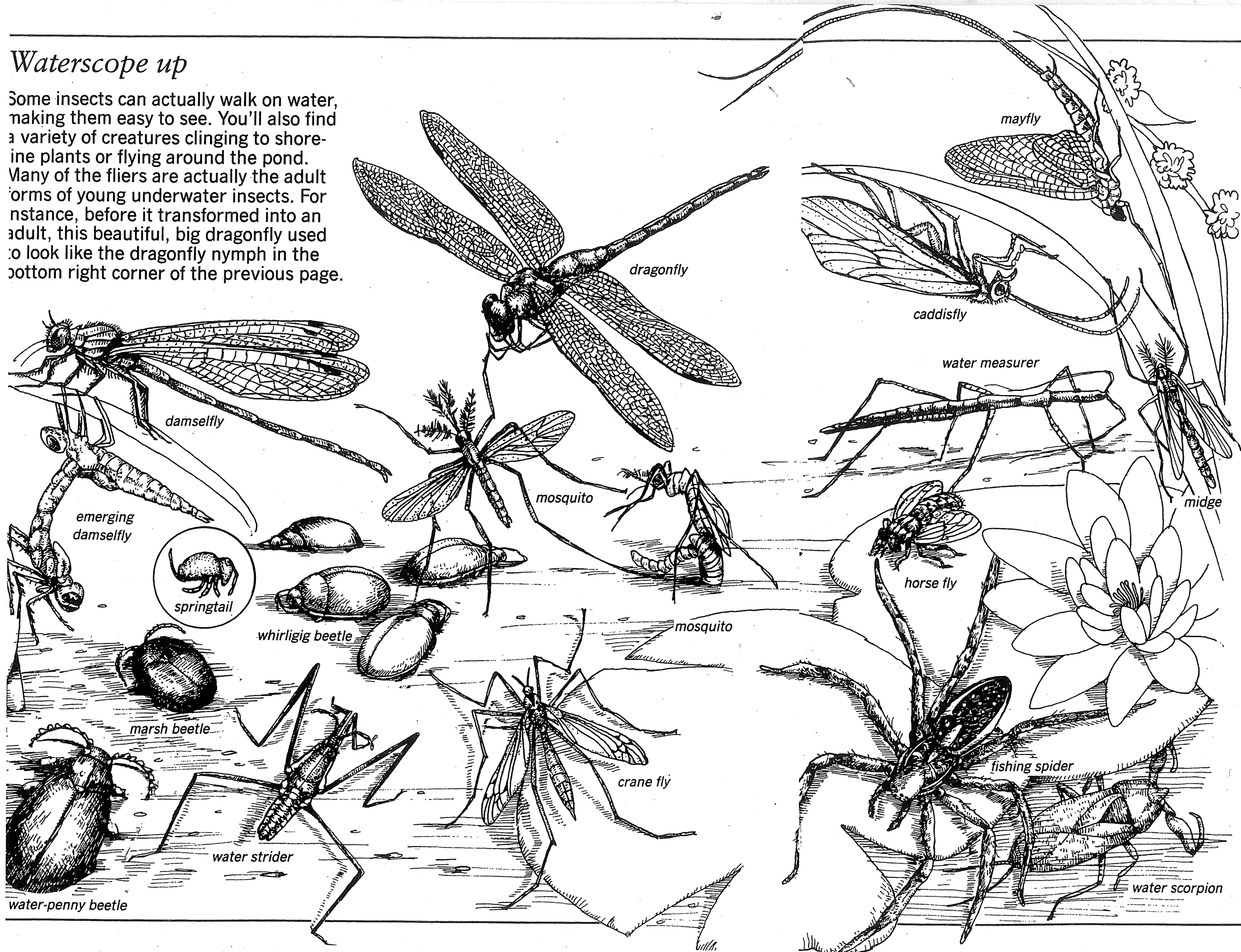
Here's a sneak preview of what you might see when you start exploring insects underwater. Grab your new waterscope and head for the pond.

Many of these insects are still "youngsters" in the larva and nymph stages and will look very different when they get older. Turn the page to see how they've changed.



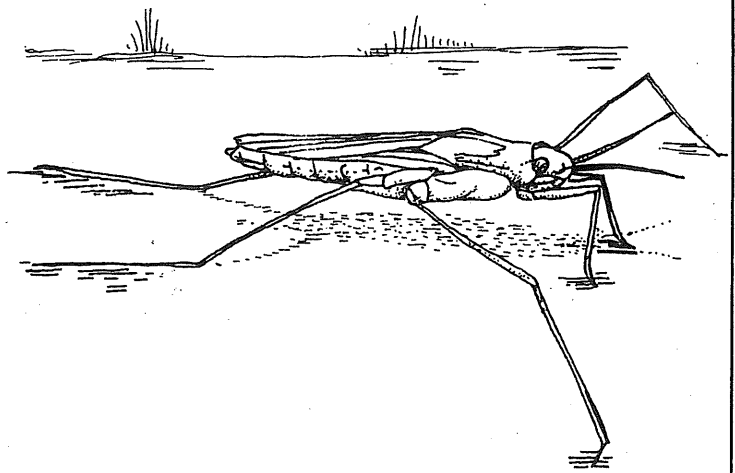
Waterscope up

Some insects can actually walk on water, making them easy to see. You'll also find a variety of creatures clinging to shoreline plants or flying around the pond. Many of the fliers are actually the adult forms of young underwater insects. For instance, before it transformed into an adult, this beautiful, big dragonfly used to look like the dragonfly nymph in the bottom right corner of the previous page.



How do insects walk on water?

Wouldn't it be great to be able to walk across a pond without even getting your feet wet? Some insects can do this because of something called *surface tension*. Water forms a very strong, elastic-like surface where it meets the air. The water molecules "stick" tightly together and act like an invisible barrier, covering the water. You can test the strength of the water's surface with a simple trick. Fill a glass with water and very carefully lay a needle lengthwise on top of the water. Make sure you don't prick the water's surface with the needle. Even though the needle is heavier than the water, it will float as long as the surface is not penetrated.



Like the needle, specially adapted aquatic insects can also stay afloat. The water strider, for example, has well-designed feet. They are covered with hairy tufts that act like snowshoes, spreading the insect's weight out over the surface so it can walk on the water. And unlike most insects, a water strider's claws are not on its feet, but part way up its legs. This prevents the claws from breaking through the surface layer.