

mating and reproduction insects



name _____
class _____ date _____
team _____ seat _____

An insect's life is filled with danger. The insect may be eaten by another insect, a bird, or some other animal. Man may crush, burn, or poison it. A parasite may feed on it, or a disease may strike it. A dry spell may wither the plants on which the insect feeds, causing it to starve. Cold weather may kill it. And if the insect and too many others of its species survive these dangers, their food supply will run out—and the insect will die anyway.

Insects have developed many ways of life in their endless battle for survival. They have adapted themselves to almost all kinds of living conditions, and have developed many ways to outwit their enemies. Many species depend almost entirely on their high rate of reproduction to survive the hazards of life. In fact, most insects spend most of their time eating and reproducing. Almost everything else they do is related to those two activities.

Courtship. Insects attract mates in many ways. Among many kinds of moths, the females give off an odor that attracts males, often across long distances. The males of many species of butterflies also have scent organs that they use to attract females. Male grasshoppers, crickets, cicadas, and katydids "sing." Male tree crickets also give off a liquid from behind their wings, which the females feed on. Male dance flies usually bring the females gifts of captured insects. Among some species of fireflies, the females give off a flashing light in the form of code signals to attract males. The males of some other species flash their light and then wait for the females to give an answering flash.

Reproduction

Among most species of insects, a new individual is created when a sperm of the male fertilizes an egg of the female. The female receives the sperm during mating and stores them in her abdomen. Later, when she lays her eggs, the sperm enter the eggs as they leave her body.

Many insects have unusual ways of reproducing. Some roaches, flies, beetles, and other insects give birth to living young. The females keep the fertilized eggs inside their bodies until they hatch. Female aphids, gall wasps, thrips, and many other insects can reproduce without fertilization by the male. In fact, males are extremely rare or unknown among some species of insects. Some females, including queen honeybees, receive their lifetime supply of sperm during a single mating. Thereafter, if the female fertilizes the eggs, only females will be born. If she does not fertilize them, only males will be produced.

Insect eggs have a variety of shapes and color patterns, but most are oval or round and are white or cream colored. The eggs of the smallest insects can be seen only under a microscope. The largest insects lay eggs from a quarter inch to a half inch long. The number of eggs laid varies greatly from one species to another. A female insect probably lays an average of 100 to 200 eggs during her lifetime. Some females lay only a few dozen eggs. Others may lay more than a billion. Termites are the champion egg layers. After mating, some queen termites become helplessly swollen with eggs, which they produce at a rate of 10,000 to 30,000 or more a day. Insects lay their eggs singly or in batches. They usually deposit them on or near food, which the young feed on after they hatch.

There have been many stories about the tremendous reproductive ability of insects, and of what would happen if none of the young died. In four months, for example, a pair of houseflies could produce about 190,000,000,000,000,000,000,000 descendants—if all of them lived. But this could not happen. Parasites, predators, the food supply, and other factors prevent such a population explosion among insects, just as they do among other animals.

Every insect starts life as an egg. After hatching, the insect begins to grow and develop into an adult. During this process, most insects go through a series of fantastic changes in form. The entire cycle—from egg to adult—takes only a few days for some species and as long as 17 years for others. As adults, most insects live only a short time. Few kinds live more than a year. Adult May flies probably have the briefest lives—only a few days or hours. On the other hand, queen termites may live more than 50 years. Among some species of insects, many generations are born and die in one year. Other species have only one generation a year.

Why do insects lay so many eggs?

Describe two (2) ways that insects attract each other.

Tell about the unusual way(s) some insects reproduce.