



## How Does An Ant Colony Begin?



Once a year during summer you may notice swarms of flying ants in the sky. Males and unmated queens fly up in the air to mate. This is called the marriage flight. The male ants may mate with different queens but will die a few days later. When a queen has finished mating she will return to the ground and shed her wings. Her job is then to find a place to lay her eggs. Usually the queen will choose a tunnel in the ground, a hollow twig or a dead tree stump to begin a nest.



Once the queen ant has chosen her nest location she seals herself inside a chamber. The queen loses about half her body weight and starts to lay eggs. She licks and guards her eggs all the time while laying more and more. The eggs hatch into white grubs called larvae. The larvae are fed by the queen's saliva and grow very quickly. They soon grow too big for their skins causing molting to occur. This is when the old skin drops off and new skin begins to grow. The larva has a mouth, jaws and a soft body.



Each larva makes a cocoon around itself. Now they are called pupae. The queen tears the cocoons open when the pupae are ready to hatch and the first worker ants appear. These new ants have soft, light coloured skins which quickly change in appearance to the ants we see outside. Worker ants are all females. When enough workers have hatched to gather food for the colony the queen becomes a coddled member. She is fed and groomed by the worker ants. This care and attention paid to the queen allows her to lay even more eggs in great comfort. The queen goes to sleep for the winter and all activity within the nest stops until spring time. Most ant colonies are formed this way and may last for many years.



Name: \_\_\_\_\_



# The Life Cycle Of A Queen Ant

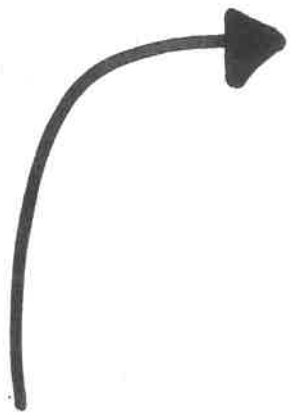


Describe the life cycle of a queen ant.



The \_\_\_\_\_

ant.



Adults \_\_\_\_\_  
from \_\_\_\_\_ and gradually  
\_\_\_\_\_ and \_\_\_\_\_.



The \_\_\_\_\_  
lays \_\_\_\_\_  
\_\_\_\_\_.



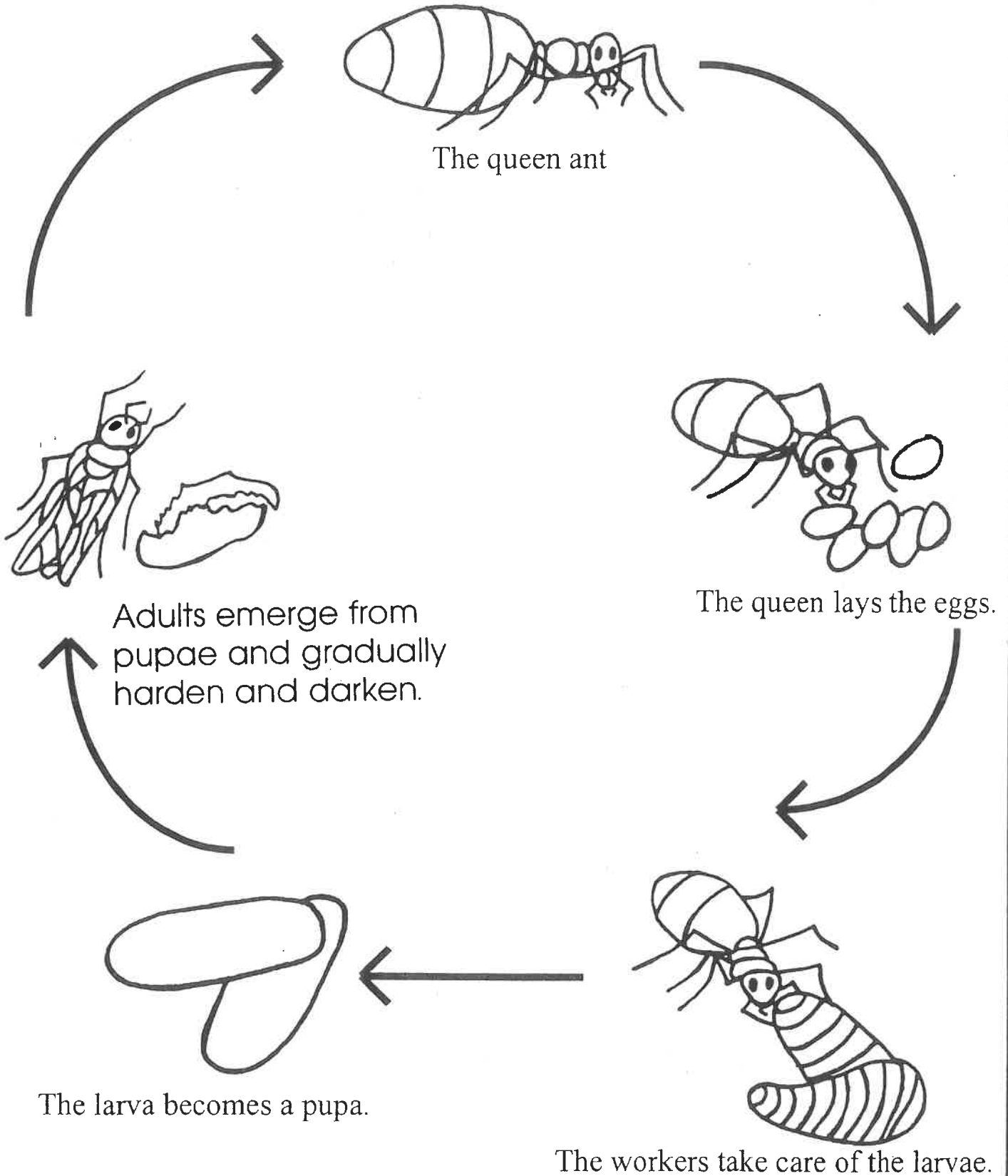
The \_\_\_\_\_  
becomes a \_\_\_\_\_  
\_\_\_\_\_.

The \_\_\_\_\_  
take care of \_\_\_\_\_  
\_\_\_\_\_.



Name: \_\_\_\_\_

# The Life Cycle Of A Queen Ant



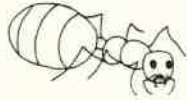


## How Does An Ant's Body Look?



**A**lthough ants are different in colours and sizes they all have very similar body parts. The ant's body is enclosed in a hard outer skin called the exoskeleton. This hard skin protects the ant from harm. The body of the ant is divided into three main parts. These parts are the head, thorax and abdomen.

The head is located at the front of the body and contains the ant's eyes, jaws, brain and antennae. The antennae are feelers which allow the ant to search for food. They touch, smell and even talk to each other using their antennae. Ants have very small eyes made up of about fifty tiny lenses in each eye. An ant's eyesight is not very good but this does not seem to matter much as ants spend most of their time underground where it is dark. An ant's jaw is large and very sharp. It is used for catching and biting prey. Small back teeth are used for carrying eggs. Ants have tongues which are used for licking up food. Two feelers, located between the ant's jaws allow the insect to taste its food. These feelers are called palps.



The thorax is located in the middle part of the body and is muscular. The ant's six legs are joined to the thorax as well as the queen's and male's wings.

The abdomen is at the end of the body. Unlike you or I who have just one stomach, an ant has two stomachs located inside the abdomen. The first stomach is where food is stored and turned to liquid. This liquid can easily be "brought up" by the ant to feed the others. This stomach is called the crop. The second stomach is used to feed the ant itself. Glands that make poisons and different scents are located in the abdomen. The abdomen contains ovaries which make eggs in the queen ant and testes which make sperm in the males.

The area where the thorax and abdomen join together is called the petiole or node. This "waist" allows the ant to move its abdomen in different directions. This is a protective feature that allows the ant to position its body in such a way that its poisonous juices can be directed at its enemy. Some ants will have one or two petioles. For example, a red ant has two nodes and a black ant has one.



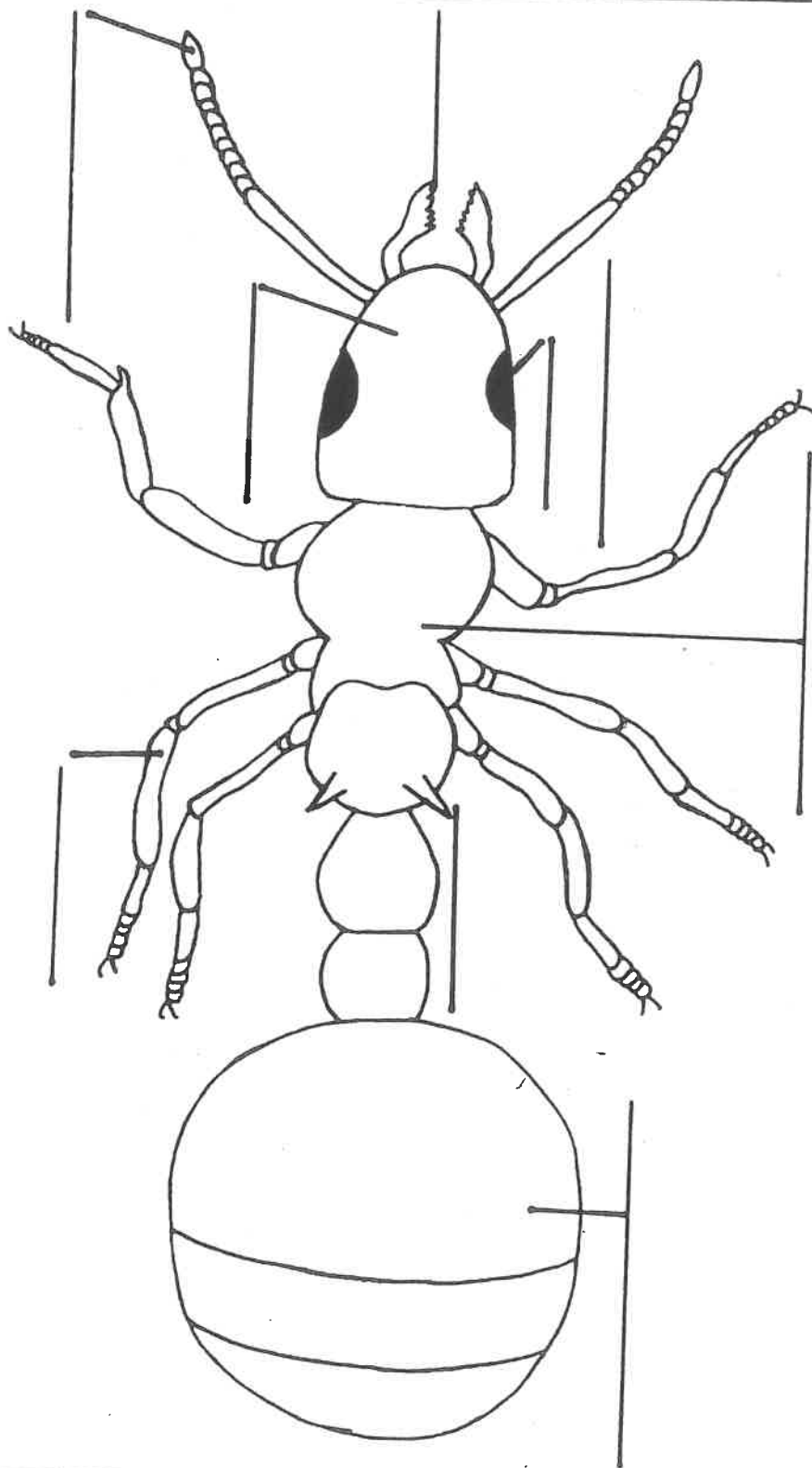
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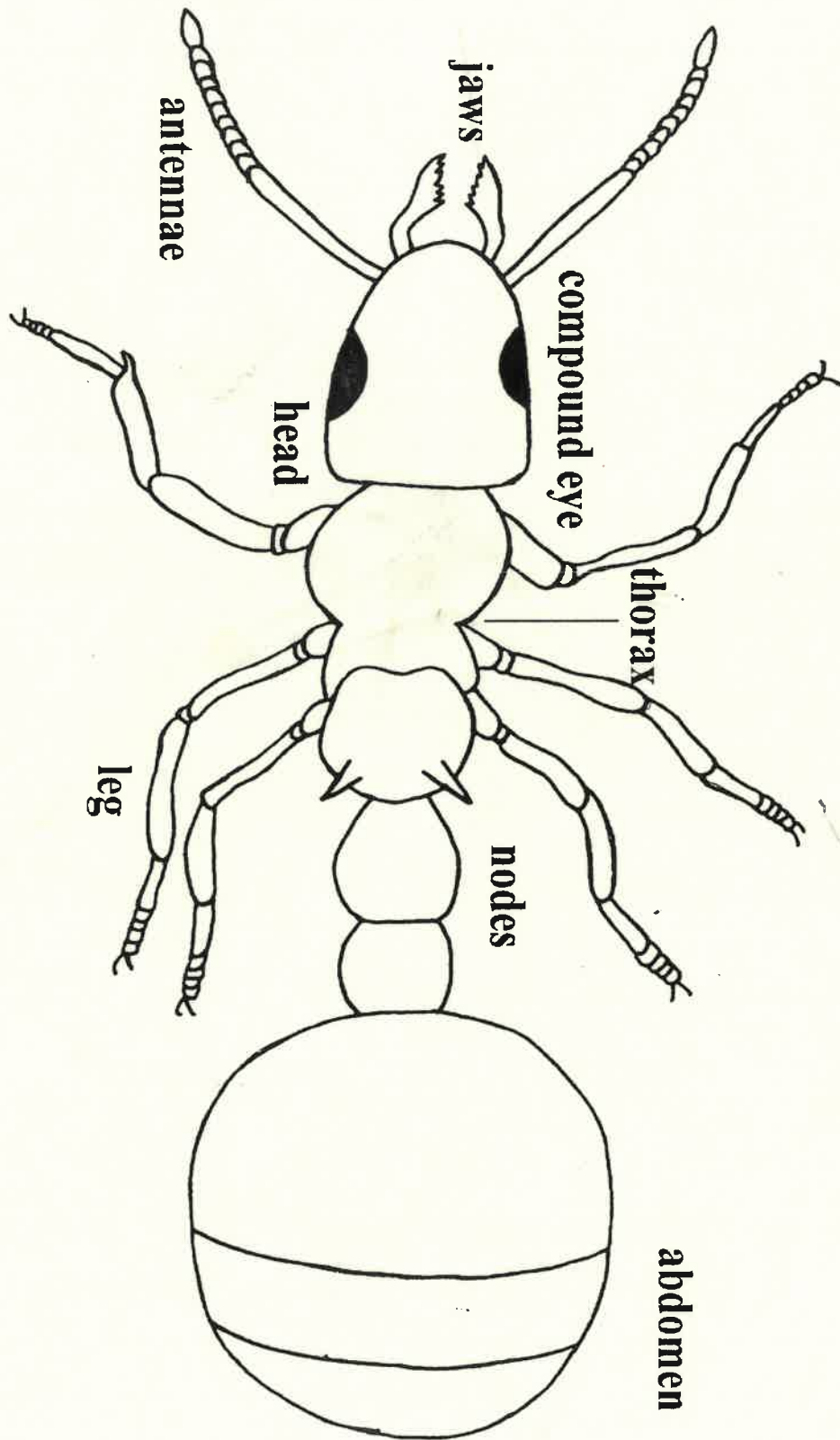
# Amazing Ant Body Parts



Observe a live ant with a magnifying glass. Locate and label its different body parts.



# An Ant's Body







## What Kind Of Nests Do Ants Build?



Some ants build their nests underground. The black garden ant builds its nest two to five centimetres deep. If you could look inside a nest you might find as many as one million ants living together. An ant's nest is a very busy place. There is a chamber where the queen ant lays her eggs, a nursery for the grubs, nursery workers who look after the larvae, new workers hatching, and workers keeping the nest clean and supplying food.

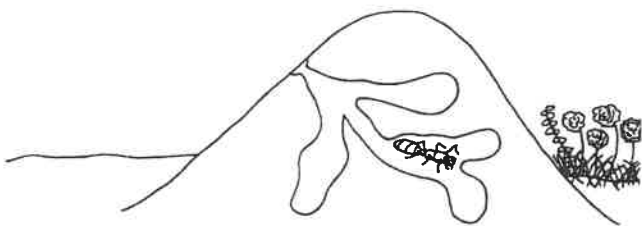
The yellow meadow ant builds up a mound of soil from as deep as one metre below the surface earth. The ant colony lives in the mound and underground as well. The mound receives warmth from the sun. As the sun sets and the mound becomes cool, the ants move themselves underground where it is warmer.



Not all ants build their nests underground. Mudball ants build their nests in trees. Their nests look very similar to a wasp's nest.

Tailor ants build nests out of leaves. The leaves are stitched together by silk which is produced by the grubs. Doorkeeper ants make their nests inside plant stems.

Parasol ants are gardeners. These ants cut down leaves and carry them into their underground gardens. The leaves are chewed up and left alone until a fungus grows on them. This fungus becomes food for the Parasol ant. Harvester ants collect and store seeds underground.





## Special Ants



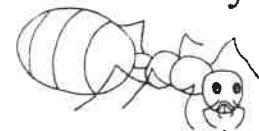
There are approximately 10 000 different kinds of ants in the world. Army ants are from Africa. They travel in large numbers searching for food and protect themselves with large soldier ants in the front and sides of the lines. Army ants eat anything in their path. It has even been said that army ants will eat an entire horse that is tied and can not get away.

Red Amazon ants attack black ant's nests and steal the black pupae. When the black pupae hatch they look after the red Amazon ants as they believe the red Amazon queen is their mother.

Bulldog ants live in Australia. The worker ants are between one to three and one half centimetres in length. They are very big insects. The bulldog ants have large jaws and a painful sting.

Leaf-cutter ants live in the wet forests of South America. These ants are the main destroyers of leaves in South America. They bring the leaves to their nests and wait until a fungus grows on them. Then the leaf-cutter ants eat the fungus.

Black garden ants dig their tunnels on the edges of pavement or under flat stones. Most of the garden ants are workers who look after the eggs, find food and keep the nest orderly. Garden ants take all the garbage out of their nest and deposit it in one pile which looks very much like our garbage dumps except much smaller.



Red ants have a painful sting when they bite. You can recognize a red ant by its red colouring. These ants make their nests in gardens and when winter arrives they dig down deeper in their tunnels to stay warm.

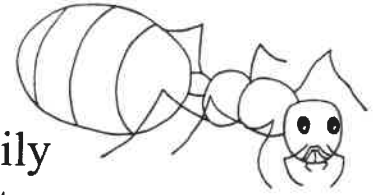




# Data Bits

## Classification of the ant

- Insect
- Belongs to a special group of the wasp family
- Belongs to the Hymenoptera order of insects



## Varieties

- About 10 000 different kinds
- Meadow, Black Garden, Pharoah's, Red, Wood, Leaf-cutting, Army, Red Amazon, Bulldog to name just a few.
- Black Garden and Red ants are commonly found in Canada.

## Homes

- North and South America, Africa, Australia, Europe, Asia

## Food

- honeydew, other insects, dead animals, seeds, garbage, leaves, fungus

## Insects have

- six legs
- three body parts (head, thorax, abdomen)
- (usually) wings or feelers

