

# Zoology Project File

On

## Invertebrates



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Topic \_\_\_\_\_

Date \_\_\_\_\_

# Certificate

This is to certified that Meenakshi  
C.M.G. G.C.W., Bhodia Khera in cla  
B.Sc.(I) Medical under the college Re  
2205820031 and University Roll no:- 180260443002  
has made a report on -  
**Invertebrates**

Vijayant

Teacher's Signature

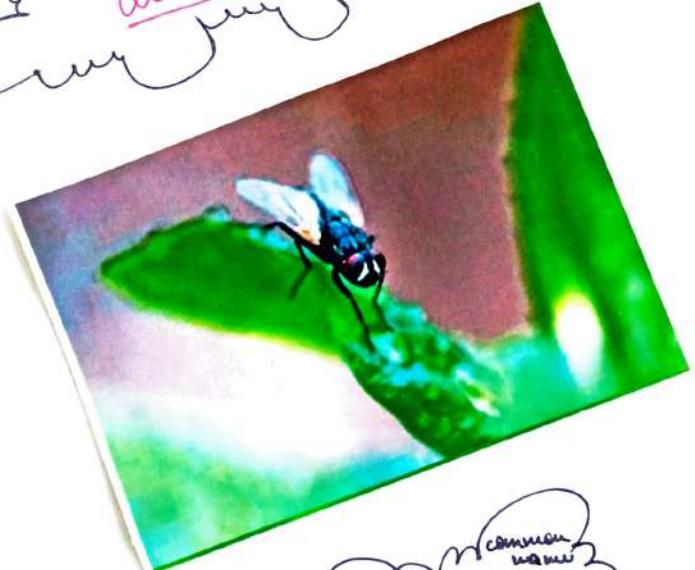
CS/UTT

Teacher's Signature \_\_\_\_\_

Scientific name -

Musca

domestica



common name  
Housefly

Topic \_\_\_\_\_

Date \_\_\_\_\_

Housefly

Scientific Classification

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Diptera

### Habits

House flies feed on a wide variety of organic matter including faeces and many types of liquids. When it lands on solid food, it vomits on solid food and creates a solution of it, then sucks it and thus contaminates the food.

### Habitat

Housefly is found in all climates and it is common in both rural and urban area. It is typically associated with animal faeces and garbage.

### Economic Importance

Houseflies are carrier organisms which cause several diseases in man. Flies feed on garbage, manure, faeces, they also visit them for laying eggs, they pick up disease germs and then come to feed on dining tables, sweet shops etc.

*Odonata*  
Lepidoptera  
*Amphibia*



*common name -*  
**Moth**  
*Cunk*

Topic \_\_\_\_\_ Date \_\_\_\_\_

## Moth

Classification -

King dom - Animalia  
Phylum - Arthropoda  
Class - Insecta ✓  
Order - Lepidoptera ,

Habits

Since they do eat, moths will drink nectar. & the adults do not eat but larvae will eat through wool clothing.

Habitat

Moths live and breed in diverse habitats, including salt marshes, mangroves, sand dunes, wetlands, grasslands and mountain zones.

Economic importance

Some moths are farmed for their economic value. Silkmoth is farmed for silk with which it builds its cocoon. The larvae of many species used as food. The larvae are important source of nutrition, particularly in Africa



Scientific name -  
Ropalidia marginata  
 my my my



common name  
Wasp  
 my my my

Topic \_\_\_\_\_ Date \_\_\_\_\_

## Wasp

Classification -

Kingdom - Animalia  
 Phylum - Arthropoda  
 Class - Insecta  
 Order - Hymenoptera

Habit

Adult solitary wasps spend most of their time in preparing their nests and foraging for food for their young. Mud daubers and pollen wasps construct mud cells in sheltered places.

Habitat

Wasps, yellow jackets live all over North America in meadows, woodlands, playgrounds, urban settings. All wasps build nests, although they vary in their nesting preferences.

Economic Importance

Wasps are thought to play pivotal role in ecosystem, as predator for wide range of arthropod. This also makes them of economic value as pest controllers, as well ecological value in control of various arthropod populations.

Designer Sheet  
Peace  
Teacher's Signature

Scientific name -

Pheretima posthuma

Every year



Common name

Earthworm

Every year

Topic \_\_\_\_\_

Date \_\_\_\_\_

### Earthworm

Scientific classification -

Kingdom = Animalia

Phylum - Annelida

Class - Oligochaeta

Order - Terebratulida

### Habits

Earthworm makes its burrow partly by pushing its anterior end and partly by sucking and swallowing the earth. These are cold-blooded and feed on dead organic matter present on soil.

### Habitat

Earthworm live in burrows in moist, subterranean soil. These are common in gardens, lawns, fields. They are rare in acidic, alkaline and heavy clay.

### Economic Importance

Earthworms are beneficial to agriculture. These are also serve as food for useful animals. They form best food of fish in aquaria. Earthworms are used for dissections in ecological laboratories. Earthworms also spoil lawns and golf-ground.

Scientific name  
Poecilocerus Pictus  
my own



Common name  
Grasshopper  
my own

Topic \_\_\_\_\_ Date \_\_\_\_\_

Grasshopper

Scientific Classification

Kingdom - Animalia  
Phylum - Arthropoda  
Class - Insecta  
Order - Orthoptera

Habits

Grasshopper is diurnal insect, feeds on leaves of a k plant. It shows triple mode of locomotion. i.e crawling, creeping and flying.

Habitat

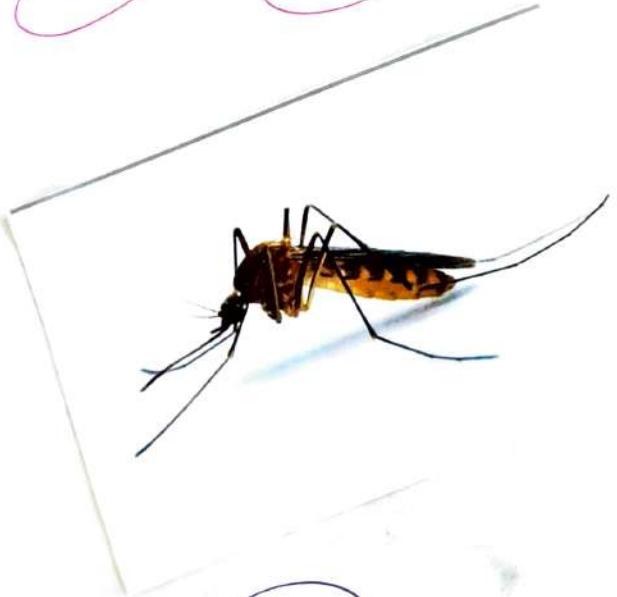
Grasshopper is found on a k plant during summer in India and Africa. It prefers dry open area with lot of grass.

Economic Importance

Grasshopper live on vegetation and cause a great damage. During scarcity of food, grasshopper will eat cotton, woolen fabrics and wood. Grasshoppers are native component of ecosystem in U.S., playing a role of nutrient cycle.



Scientific name  
Plasmodium  
common name - Vivax



common name -  
Mosquito

Topic \_\_\_\_\_ Date \_\_\_\_\_

### Mosquito

Scientific Classification

Kingdom - Animalia  
Phylum - Arthropoda  
Class - Insecta  
Order - Diptera

#### Habit

Female anopheline mosquito bite because they need protein found in blood to develop their eggs.

#### Habitat

Mosquito can live in almost any environmental conditions, with the exceptions of extreme cold weather. They favor forests, marshes, tall grasses and weeds and ground that is wet at least part of the year.

#### Economic Importance

The agency of mosquitoes in the transmission of other febrile diseases is so definitely established that their economic importance as a menace to public health can not be doubted. To some persons the bite of mosquito is really a serious matter and severe swelling and inflammatory conditions are caused.

Designer Sheet 80 Pence STATIONERY Teacher's Signature

Scientific name

Cicada

Cry Cry



Topic \_\_\_\_\_

Date \_\_\_\_\_

Cicada

Scientific Classification-

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Homoptera

#### Habits

It is commonly called 17 years Cicada. It is diurnal and suck plant sap with its piercing and sucking type of mouth parts. It is unisexual. Male lay eggs with their ovipositors in branches of fruit trees. Eggs hatch into nymph. Nymphs drop on ground and burrow into soil where they suck sap from the roots. They undergo gradual metamorphosis to become adult in 3-17 years.

#### Habitat

Cicadas lives on trees and are found in forests of India, Europe and America.

#### Economic Importance

They are harmful because they damage fruit trees.

Scientific name

Apis indica



Common name

Honey bee

every year

Topic \_\_\_\_\_

Date \_\_\_\_\_

### Honey Bee

Scientific classification -

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Hymenoptera

### Habits

Honey Bees are beneficial insects. In nature honey bees build their hives in enclosed spaces like hollow trees. Inside the hives, they build a wax honey comb, store honey, and raise new bees. There are three types of bees: queen, worker, and drone.

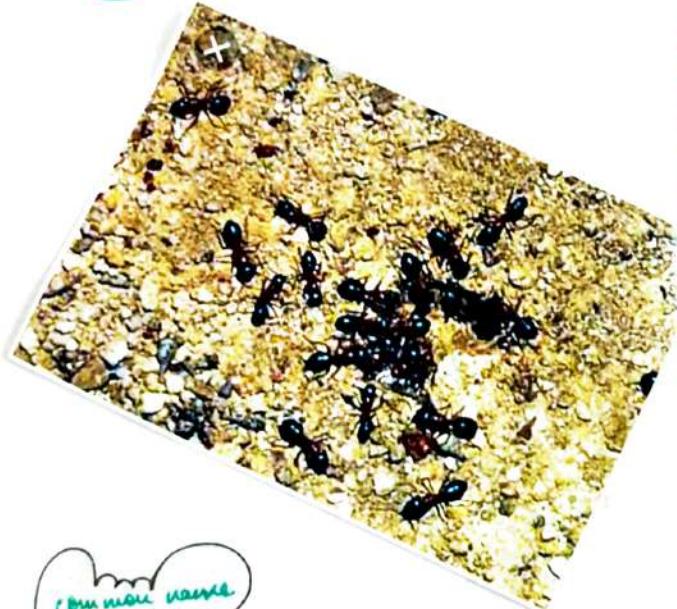
### Habitat

Honey bees found in tropical climate and heavily forested areas. Honey bees can thrive in natural or domesticated environments, though they prefer to live in gardens, woodlands, and other areas where flowering plants are abundant.

### Economic Important

Honey bees helps in pollination of many fruits, vegetable and seed crops. A wide variety of important products are made from honey, beeswax etc. that bees produce.

*Family  
Formicidae*  
*My my go*



*Common name*  
*Ant*  
*My go*

Scientific  
Name  
Diodomyrmex  
purpureus

Topic \_\_\_\_\_

Date \_\_\_\_\_

## Ant

### Scientific Classification

Kingdom - Animalia  
Phylum - Arthropoda  
Class - Insecta  
Order - Hymenoptera

### Habits

Ants feed on a large range of foods, from engine oil at the side of the road, to other ant species. Most ant species are omnivorous and eat seeds, nectar, and other invertebrates.

### Habitat

All ant species need sheltered places to nest and take care of their offspring. Most species nest underground, but some nest in trees. Some very small ant species can make nests inside acorns and other small hiding places.

### Economic Importance

Ants turn and aerate the soil, allowing water and oxygen to reach plant roots. Ants eat a wide variety of organic material and provide food for many different organisms.

Family -  
Gryllodes supplicans  
 or  
Gryllidae



Common name -  
Indian house cricket

Subject -  
Acheta  
domestica  
 By [unclear]



## Acheta domesticus

### Scientific Classification

Kingdom - Animalia  
 Phylum - Arthropoda  
 Class - Insecta  
 Order - Orthoptera

### Habits

The most obvious sign of a house cricket infestation is the presence of crickets in the house. They are drawn to warm, moist environments within structures. Another sign of cricket infestation is chirping noise the male house cricket often make, which is done when they rub their front wings together.

### Habitat

Cricket live in almost every environment. They found in fields and meadows, forests and grasslands, marshes, trees and bushes, and underground. Cricket live in gardens and can even live in your house.

### Economic Importance

Crickets can not pose health risk to humans, but can damage property like clothing, carpets and areas covered in fabrics.

Infra-order-  
**Anisoptera**



common name-  
**dragonfly**

Scientific name-

Anax  
imperator

Topic \_\_\_\_\_ Date \_\_\_\_\_

## Dragonfly

### Scientific classification

Kingdom - Animalia

Phylum - Arthropoda

Class - Odonata

Order - Anisoptera

### Habits

Adult dragonflies hunt on the wing using their exceptionally acute eyesight and strong, agile flight. They are almost carnivorous, eating a wide variety of insects from small mosquitoes to butterflies.

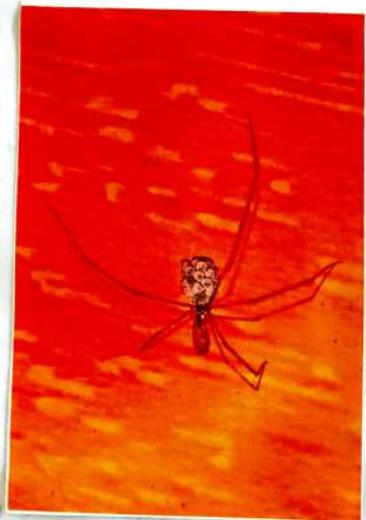
### Habitat

Immature dragonflies live in freshwater that has no fish. Adult dragonflies often stay near water, but sometimes travel away from water while hunting or on migration.

### Economic Importance

Dragonflies play key roles in both terrestrial and aquatic habitats. They are predators as both nymphs and adults, feeding on a variety of prey including nuisance species such as mosquitoes and biting flies.

Order -  
Araeae  
Eury Jyoti



common name -  
Spider  
Eury Jyoti

Topic \_\_\_\_\_ Date \_\_\_\_\_

## Spider

### Scientific Classification -

Kingdom - Animalia  
Phylum - Arthropoda  
Class - Arachnida  
Order - Araeae

### Habit

They mainly eat insects, but some larger species are able to catch small fish. Females of the water spider *Argiope aquatica* build underwater 'diving bell' webs which they fill with air and use for digesting prey, molting, mating, and rearing offspring.

### Habitat

Spiders live in almost every habitat on earth. The only places where there are no spiders are the polar regions, the highest mountains and the ocean floor. Some spider species have invaded the ocean's edge, living in the rock and coral crevices of the intertidal zone.

### Economic Importance

All spiders are predators. Because of their abundance, they are important predators of insects. They are used to control insects in apple orchards in Israel.

Scientific Name -  
Danaus plexippus



common name

Monarch  
Butterfly

Topic \_\_\_\_\_ Date \_\_\_\_\_

### Butterfly

Scientific Classification -

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Insecta

### Habits

At larval stage butterfly larvae eat plant leaves. The adult butterflies suck nectar from flowers or sap from plants with their proboscis. They eat various liquids to maintain their water balance and Energy stores.

### Habitat

In the spring and summer, the monarch butterfly's habitat is open fields and meadows with milkweed. In winter it can be found on the coast of southern California and at high elevations in central Mexico.

### Economic Importance of Butterflies

Butterflies are important pollinators to most agricultural crops. Butterflies are also food source to predators like birds, spiders and other animals. Butterfly farming encourages ecotourism.

Scientific name -

Coccinella septempunctata

My My



Common name -

Lady bug

My My

Topic \_\_\_\_\_ Date \_\_\_\_\_

### Lady bug

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Coleoptera

### Habit

Lady bug eat aphids and other plant eating pests. One lady bug can eat upto 5,000 insects in its life time. Most ladybugs have oval, dome-shaped bodies with six short legs.

### Habitat

Lady bug found in grasslands, forests, cities and along rivers. Lady bug are most active from spring until fall. Ladybugs feeds on aphids found on green plants which drinks sap from the stems of plants.

### Economic Importance

Most lady bug consume plant-eating insects, such as aphids and in doing so, they help to protect crops. Lady bug lay hundreds of eggs in colonies of aphids and other plant-eating pests. When they hatch, the lady bug larvae immediately begin to feed.



Common name  
Ground beetle  
my my

Topic \_\_\_\_\_

Date \_\_\_\_\_

## Ground Beetle

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Coleoptera

### Habits

Ground beetles are active at night occasionally attracted to lights. They hide during the day and are found on the ground under leaves, stones and in grassy areas.

### Habits

Ground beetles prefer moist cool areas and usually run rather than fly when disturbed. They emerge from under rocks, crevices and litter at night in search of insects, worms or snails.

### Economic Importance

Ground beetles are important biological control agents in agroecosystems. They live on surfaces of soil where they capture and consume soil dwelling insects, including caterpillars, ants, aphids and slugs.

Scientific name -

Bombyx mori

Tiny



Common name -

Silk moth

tiny

Topic \_\_\_\_\_

Date : \_\_\_\_\_

## Silkmot<sup>h</sup>

Kingdom - Animalia

Phylum = Arthropoda

Class = Insects

Order - Lepidoptera

### Habits

Silkworm's natural food is mulberry leaves. Silkworm caterpillar also eat the foliage of orange orange. The pale larva has a characteristic posterior horn.

### Habitat

The silkworm is a very specialized feeder. It eats only leaves of mulberry trees. Because silkworm has become domesticated so that its cocoons can be harvested to make silk fabric.

### Economic Importance

Silkworm produces silk as high quality fiber and silk fabrics are highly attractive. There are different lines and strains for silk production.

Scientific name

Periplaneta americana

any any



Common name -

Cockroach

any any

## Cockroach

Kingdom - Animalia

Phylum - Arthropoda

Class - Insecta

Order - Blattodea

### Habits

Cockroaches are omnivorous scavengers and will consume any organic food source available for them. Although they prefer sweets, meats and starches, and also consume other items such as hair, books and decaying matter.

### Habitat

With uncounted trillions of cockroaches walking the earth, most cockroaches live in forests, canes, burrows and brush. The mammoth rhinoceros cockroach native to Australia can be more than 3 inches long and live up to ten years.

### Economic Importance

Most cockroaches live outside and help to decay outside organic matter. Believed to spread disease, but contrary to popular opinion, they rarely if ever spread human disease.