**Zoology Notes**

**Chordata –**

**Traits -**



**Prevertebrates –**

**e.g. –**

**Vertebrates –**

**Agnatha –**

**e.g. –**

**Chondrichthyes –**

**e.g. –**

**Osteichthyes –**

**e.g. –**

**Amphibia –**

**Reptiles –**

**Aves –**

**Mammalia -**

**Advantages of the vertebrates –**

**Vertebrate behavior**

**Innate –**

**Reflex –**

**Instinct –**

**Self preservation –**

**e.g. –**

**Species preservation –**

**e.g. –**

**Learned behavior –**

**Conditioned response –**

**e.g. –**

**higher intelligence –**

**Class Agnatha –**

**Examples –**

**Traits**



**Lampreys –**

**Lesson from problem –**

**Lamprey life cycle –**

**Cure? –**

**Hagfish –**

**Slime!!! -**

**Class Chondrichthyes –**

**Examples –**

**Traits**



**Shark Structure**

**Skin –**

**Fins –**

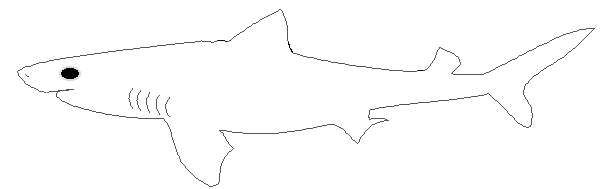
**Dorsal –**

**Caudal –**

**Pelvic –**

**Claspers –**

**Pectoral –**

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**Liver –**

**Spiral valve –**

**Cloaca –**

**Vent –**

**Sensory organs**

**Nostrils –**

**Eyes –**

**Lateral line –**

**Ampullae of Lorenzini –**

**Teeth –**

**Spiracles –**

**Feeding methods –**

**Whale shark -**

**Skates –**

**Rays -**

**Class Osteichthyes –**

**Examples:**

**Success –**

**Ichthyology –**

**Traits**



**Spawning –**

**Roe –**

**Milt –**

**Fry -**

**Fish Structure**

**Nostrils –**

**Eyes –**

**Lateral line –**

**Operculum –**

**Fins –**

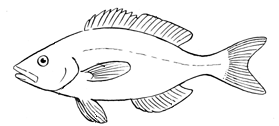
**Dorsal –**

**Caudal –**

**Pectoral –**

**Pelvic –**

**Anal –**

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**Scales –**

**Mucus –**

**Swim bladder –**

**Class Amphibia –**

**Examples –**

**Herpetology -**

**Traits**



**Typical vertebrates –**

**Amphibian heart –**

**Problems with terrestrial environment**

**Respiration –**

**Support and movement –**

**Dehydration –**

**Temperature –**

**Reproduction –**

**Amphibian reproduction**

**Amplexus –**

**Amphibian metamorphosis –**

**Hibernation –**

**Estivation –**

**Amphibian defenses**



**Orders of Amphibia**

**Anura –**

**Examples –**

**Knowing the difference**

**Frogs Toads**

**Caudata –**

**Examples –**

**Apoda –**

**Examples –**

**Indicator species -**

**Frog structure**

**Eyes –**

**Nictitating membrane –**

**Tympanum –**

**Nares –**

**Frog gender**

**Male –**

**Female –**

**Mouth cavity**

**Gullet –**

**Glottis –**

**Teeth –**

**Tongue –**

**Vocal sac opening –**

**Eustachian tube opening –**

**Internal structure**

**Esophagus –**

**Stomach –**

**Small intestines –**

**Large intestines –**

**Cloaca –**

**Vent –**

**Liver –**

**Bile -**

**Gall bladder –**

**Pancreas –**

**Mesentery –**

**Spleen –**

**Lungs –**

**Heart –**

**Kidneys –**

**Urinary bladder –**

**Fat bodies –**

**Gonads –**

**Oviducts –**

**Class Reptilia –**

**Examples –**

**Traits**



**Reptilian heart –**

**Reptilian adaptations for terrestrial environment**

**To avoid dehydration –**

**Reproduction –**

**Copulation -**

**Amniotic egg –**

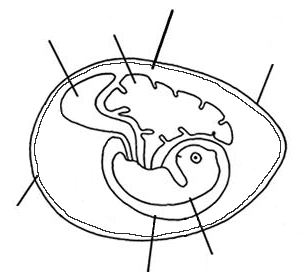
**Amnion –**

**Albumen –**

**Yolk sac –**

**Shell and chorion –**

**Allantosis –**

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**Orders of Reptiles**

**Squamata –**

**E.g. –**

**Tesudinata -**

**Knowing the difference**

**Turtle Tortoise**

**Crocodilia –**

**Knowing the difference**

**Alligator Crocodile**

**Rhynchocephalia –**

**Tuatara -**

**Snakes –**

**Methods of capturing food**



**Venomous snakes in the U.S. –**

**Only venomous snake of this area –**

**Rattlesnake structure**

**Scutes –**

**Eyes –**

**Nostrils –**

**Pits –**

**Tongue –**

**Jacobson’s organ –**

**Gullet –**

**Glottis –**

**Solid teeth –**

**Fangs –**

**Venom gland –**

**Hemotoxin –**

**Neurotoxin –**

**Venom gland muscle –**

**Rattlesnake strike –**

**Adaptations for swallowing prey**



**Snake bite do’s snake bite don’ts**

**Lizards –**

**Gila monster –**

**Chameleon adaptations**



**Komodo dragon –**

**Turtles and tortoises –**

**Carapace –**

**Plastron –**

**Saltwater crocodile –**

**Class Aves –**

**Ornithology –**

**Traits**



**Classification –**

**Altricial –**

**e.g. –**

**Precocial –**

**e.g. –**

**General types of birds**

**Waterfowl –**

**e.g. –**

**Raptors –**

**e.g. –**

**Shorebirds –**

**e.g. –**

**Upland game birds –**

**e.g. –**

**Song birds –**

**e.g. –**

**Flightless birds –**

**e.g. –**

**Feathers**

**Down –**

**Contour –**

**Quill –**

**Feather structure**

**Shaft –**

**Barbs –**

**Barbules and hooks –**

**Preening –**

**Preen gland –**

**Molting –**

**Bird structure**

**Senses**

**Eyes –**

**Ears –**

**Nares –**

**Respiratory system**

**Pharynx –**

**Trachea –**

**Syrinx –**

**Lungs –**

**Air sacs –**

**Digestive system**

**Esophagus –**

**Crop –**

**Stomach –**

**Proventriculus –**

**Gizzard –**

**Liver –**

**Pancreas –**

**Intestines –**

**Rectum –**

**Cloaca –**

**Vent –**

**Circulatory system**

**Heart –**

**Skeletal system**

**Orbit –**

**Keel –**

**Muscular system –**

**Excretory system**

**Kidneys –**

**Ureters –**

**Reproductive system –**

**Class Mammalia –**

**Mammalogy –**

**Traits**



**Advantages of mammals**

**Temperature regulation –**

**Intelligence –**

**Respiration –**

**Care for young –**

**Classification –**

**Teeth –**

**Canines –**

**Molars –**

**Incisors –**

**Limbs –**

**Reproduction –**

**Gestation –**

**Monotremes –**

**e.g. –**

**Marsupials –**

**e.g. –**

**Placentals –**

**Placenta –**

**e.g. –**

**Orders of Placental Mammals**

**Insectivora –**

**e.g. –**

**\* Chiroptera –**

**e.g. –**

**Edentata –**

**e.g. –**

**\* Rodentia –**

**e.g. –**

**Lagomorpha –**

**e.g. –**

**\* Carnivora –**

**e.g. –**

**Pinnipedia –**

**e.g. –**

**Sirenia –**

**e.g. –**

**\* Cetacea –**

**Toothed whales –**

**Baleen whales –**

**Blue whale –**

**Proboscidea –**

**e.g. –**

**\* Ungulates –**

**Artiodactyla –**

**e.g. –**

**rumen –**

**Perissodactyla –**

**e.g. –**

**\* Primates –**

**e.g. –**

**External pig structure**

**Ears –**

**Eyes -**

**Nostrils –**

**Toes –**

**Digestive system**

**Mouth –**

**Pharynx –**

**Esophagus –**

**Stomach –**

**Small intestines –**

**Liver –**

**Gall bladder –**

**Pancreas –**

**Large intestines (colon) –**

**Rectum –**

**Anus –**

**Endocrine system**

**Thyroid –**

**Thymus –**

**Pancreas –**

**Respiratory system**

**Trachea –**

**Larynx –**

**Lungs –**

**Diaphragm –**

**Circulatory system**

**Heart –**

**Atrium –**

**Ventricle –**

**Spleen –**

**Excretory system**

**Kidneys –**

**Ureters –**

**Urinary bladder –**

**Urethra –**

**Reproductive system**

**Testes –**

**Ovaries –**