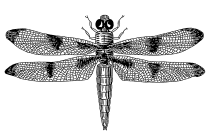
**Animal Test Review**

1. Define the following: endoderm—innermost layer of tissue, mesoderm—middle layer of tissue, ectoderm—outermost layer of tissue
2. Sketch an animal with each type symmetry:

Assymetry Bilateral Radial

1. Be able to identify common animals with their type of symmetry.
2. Complete the chart below:

|  |  |  |
| --- | --- | --- |
| **Invertebrate Phylum** | **Main Characteristics** | **Examples** |
| **Porifera** | Filter feeders, pores, asymmetry, sessile | Sea sponges |
| **Cnidaria** | Radial symmetry, tentacles with stinging cells | Jellyfish, corals, sea anemones |
| **Platyhelminthes** | Bilateral, regeneration, “flatworms” | Planaria, flatworms, tapeworms |
| **Nematoda** | “roundworms”, mouth and anus | Roundworms, Ascaris, C.elegans |
| **Annelida** | “segmented worms”, complex body systems, breathe through skin | Earthworms, leeches |
| **Mollusca** | Most have shells, mantle, muscle foot, and radula | Snails, slugs, octopus, squid |
| **Echinodermata** | “spiny skinned” , water vascular system, tube feet, radial symmetry | Starfish, sand dollars, sea urchins |
| **Arthropoda** | “jointed foot”, exoskeleton made of chitin, specialized appendages | Insects, lobster, arachnids, crayfish, horseshoe crab, centipedes, millipedes |

1. Name basic characteristics of birds. hollow bones, 4 chambered heart, feathers, endothermic(warm-blooded), hard amniotic egg
2. Name basic characteristics of mammals.endothermic, 4 chambered heart, hair/fur, mammary glands to produce milk, external ears, internal fertilization
3. List four characteristics ALL animals have in common. Multicellular, eukaryotic, heterotrophic, mobile
4. Define endothermic.”warm—blooded”—able to maintain constant body temperature Which vertebrates are endothermic? Birds and mammals
5. Define ectothermic “cold-blooded”—retains the temperature of their environment Which vertebrates are ectothermic? Fish, amphibians, reptiles
6. Define the following: hermaphroditic—produces both egg and sperm from the same organism, cephalization—having a concentration of sensory organs at the anterior end, amniotic egg—an egg with a tough outer protection as a adaptation for reproduction on land

11. Most fish have skeletons made of \_\_\_\_BONE\_\_\_\_\_\_\_\_\_\_\_, therefore are in *which vertebrate class?* Osteichthyes

12. Name, describe, and give examples of three types of mammals:

**monotreme:** egg layers; Ex: platypus

**marsupial:** pouch developers; Ex: kangaroo, wombat, oppossum

**placental:** placenta forms within uterus; Ex: humans, cats, dogs, mice, gorillas, tigers, lemurs, elephants, whales, dolphins, llamas, wolverines, fox, wolves, honeybadgers, squirrels, lions, hyenas, chipmunks, rabbits, meerkats, bears, moles, shrews, wookiees☺, bats, donkeys

13. Name three examples of primates. Humans, chimps, gorillas, apes—oops that’s 4☺

14. Complete the chart below:

|  |  |  |
| --- | --- | --- |
| **Vertebrate Class** | **Characteristics** | **Examples** |
| **Agnatha** | “jawless fish”, oral disc, parasites | Lampreys and hagfish |
| **Chondrichthyes** | “cartilaginous fish”  Lateral line system  Gill slits | Sharks, rays, and skates |
| **Osteichthyes** | “bony fish”  Operculum  Swim bladders | Salmon, tuna, trout, flounder, clownfish, goldfish, grouper, red snapper, angelfish |
| **Amphibia** | “double lives”, lay eggs in water, live on land, breathe through moist skin, gills as larvae, lungs as adult | Frogs, toads, salamanders, newts |
| **Reptilia** | Dry, scaly skin, live on land with lungs, adapted to minimize waterloss | Snakes, lizards, alligators, crocodiles, geckos |
| **Aves** | Hollow bones, air bladders, lungs, feathers, crop and gizzard, cloaca, endothermic | Robins, bluejays, penguins, falcons, hawks, crows, sparrows, cardinals |
| **Mammalia** | Mammary glands, hair/fur, endothermic, external ears, lungs | Humans, answers to # 12 above☺ |