

7. In the table below outline the key characteristics that distinguish the groups of the Kingdom Animalia by making notes on the following: (1) type of symmetry, (2) presence of coelom, (3) presence of segmentation, (4) soft body vs. exoskeleton vs. endoskeleton, and (5) any other notable characteristic (e.g., proto- vs. deuterostome, etc.). Also include examples of organisms in each group.

| ANIMAL GROUP    | SYMMETRY    | COELOM                   | SEGMENTATION                    | BODY       | OTHER  | EXAMPLES/<br>COMMON NAME                               |
|-----------------|-------------|--------------------------|---------------------------------|------------|--|--|
| Porifera        | No symmetry | N/A<br>acoelomate        | N/A                             | soft body  | exhibit less specialization from other animals             | Sponges  |
| Cnidaria        | Radial      | N/A<br>acoelomate        | N/A                             | Soft body  | Cnidocytes - ejected filament that attaches/stings/poisons | Jellyfish  |
| Platyhelminthes | Bilateral   | N/A<br>acoelomate        | N/A                             | soft body  | hermaphroditic   | flat-worm  |
| Mollusca        |             | coelom                   | N/A                             | Exo / soft | trochophore - odd shaped mollusk larva                     | Snail / octopus  |
| Annelida        |             | coelom                   | Segments<br>(similar units)     | Exo        | fleshy protrusion/bristles / none / both                   | round-worm<br>earth-worm                               |
| Nematoda        |             | <del>coelom</del> pseudo | segments                        | Soft       | Parasitic  | round-worm   |
| Arthropoda      |             | coelom                   | Segments<br>(different regions) | Exo        | Sensory hairs - responds to changes in enviro and touch    | Crab / lobster<br>spider / bug                         |
| Echinodermata   |             | coelom                   | segments                        | Exo        | Mostly penta radial  | starfish / sea cucumber                                |
| Chordata        |             | coelom                   | segments<br>(ribs/vertebrate)   | Endo       | Includes invertebrates and vertebrates                     | everything else that's animal<br>(squirrel - elephant) |

Japanese spider crab