**NOTES: What is an Animal? Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hr.\_\_\_\_**

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1. **Characteristics of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **All \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **Eukaryotes (cells with \_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)**
   * **Ingestive \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (take in \_\_\_\_\_\_\_\_\_ and internally digest it)**
   * **Store \_\_\_\_\_\_\_\_\_\_ reserves as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**



1. **Support Systems**
   * **Have some type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ support**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ inside and made of \_\_\_\_\_\_\_\_\_\_\_\_\_\_ &/or \_\_\_\_\_\_\_**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ found in arthropods**
     + **Cover the \_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_**
     + **\_\_\_\_\_\_\_\_\_\_\_ size**
     + **Must be \_\_\_\_\_\_\_\_\_\_\_ making animal vulnerable to \_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_ and echinoderms (starfish) have fluid-filled \_\_\_\_\_\_\_\_\_ cavities giving them \_\_\_\_\_\_\_\_\_\_\_**
   * **Called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ skeletons**
2. **Movement**
   * **Animals such as \_\_\_\_\_\_\_\_\_\_\_\_\_ may be \_\_\_\_\_\_\_\_\_\_\_\_(attached and non-moving)**
   * **Animals that \_\_\_\_\_\_\_\_\_ very little are said to be \_\_\_\_\_\_\_\_\_\_\_\_(clam)**
   * **Animals that can move are \_\_\_\_\_\_\_\_\_\_\_**
   * **Have \_\_\_\_\_\_\_\_\_\_\_\_\_\_ tissue to provide energy for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **Reproduction in Animals**
   * **\_\_\_\_\_ animals are capable of \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **Some animals like \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_ are hermaphrodites producing both \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_**
   * **Hermaphrodites may exchange sperm and do \_\_\_\_\_\_\_\_\_\_ fertilize their own eggs**
4. **Levels of Organization**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the \_\_\_\_\_\_\_\_ animals that have just the \_\_\_\_\_\_\_\_\_\_\_ level**
   * **\_\_\_\_\_ other animals show these levels**
     + **\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_**
     + **Cells may \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(take on different shapes and \_\_\_\_\_\_\_\_\_\_\_)**

**Levels of Organization: \_\_\_\_\_\_\_\_, Molecule or compound, \_\_\_\_\_\_\_\_\_\_\_\_\_, Cell, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, Organ System, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**



1. **Characteristics of Invertebrates**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_ animals**
   * **Contain the \_\_\_\_\_\_\_\_\_\_\_\_ number of \_\_\_\_\_\_\_\_\_\_\_\_ species**
   * **Most are \_\_\_\_\_\_\_\_\_\_ (found in water)**
   * **Do \_\_\_\_\_\_\_\_\_ have a \_\_\_\_\_\_\_\_\_\_\_\_**
   * **Includes sponges, cnidarians, flatworms, annelids, mollusks, arthropods, and echinoderms**
2. **Characteristics of Vertebrates**
   * **Most \_\_\_\_\_\_\_\_\_\_\_ animals**
   * **Most have a \_\_\_\_\_\_\_\_\_\_\_\_\_ made up of individual bones called \_\_\_\_\_\_\_\_\_\_\_**
   * **From \_\_\_\_\_\_\_\_\_\_\_\_ to most \_\_\_\_\_\_\_\_\_\_\_\_\_, the phylum includes: \_\_\_\_\_\_\_, amphibians, \_\_\_\_\_\_\_\_\_\_\_\_\_, birds, and \_\_\_\_\_\_\_\_\_\_\_\_**
   * **Vertebrates have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (internal)**
   * **Some vertebrates have skeletons of \_\_\_\_\_\_\_\_\_\_\_\_(sharks, rays, and skates)**
   * **Other vertebrates have skeletons of \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_(reptiles, birds, & mammals)**
3. **Body Areas----Surfaces**
   * **\_\_\_\_\_\_\_\_\_\_\_-----back or upper surface**
   * **\_\_\_\_\_\_\_\_\_\_\_-----belly or lower surface**
   * **\_\_\_\_\_\_\_\_\_\_\_-----head or front end**
   * **\_\_\_\_\_\_\_\_\_\_\_----- tail or hind end opposite the head**
4. **Body Symmetry**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of body \_\_\_\_\_\_\_\_\_\_\_ around a \_\_\_\_\_\_\_\_\_\_\_ plane or \_\_\_\_\_\_\_.**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when the body \_\_\_\_\_\_\_\_\_\_ be \_\_\_\_\_\_\_\_\_\_\_ into similar sections (\_\_\_\_\_\_\_\_\_\_\_)**
   * **Radial \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when \_\_\_\_\_\_\_\_\_\_ parts are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ around a \_\_\_\_\_\_\_\_\_\_\_\_\_ point like \_\_\_\_\_\_\_\_\_\_\_\_ on a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ( \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)**
   * **Most \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_\_\_\_ symmetry are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (attached) or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (move very little)**
   * **Bilateral \_\_\_\_\_\_\_\_\_\_\_\_\_\_ occurs when \_\_\_\_\_\_\_\_\_\_\_\_\_ can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_\_\_\_\_\_\_\_ halves along a \_\_\_\_\_\_\_\_\_\_ plane**
   * **Organisms will have \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ sides that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_ images of each other**
   * **More \_\_\_\_\_\_\_\_\_\_\_\_ type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
   * **Animals with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ symmetry are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ motile.**
   * **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ends.**
   * **Show \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (concentration of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ organs on the \_\_\_\_\_\_\_\_\_\_\_ or anterior end)**