**Notes Chapter 7 Part 2: Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Animal Body Plans**

* **Animal’s bodies are described based on the following characteristics:**
	+ **Type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Location of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(for bilateral only)**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Types of \_\_\_\_\_\_\_ layers**
	+ **Presence of a body \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Type of \_\_\_\_\_\_\_\_ plan**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_----- refers to the way that the \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ are arranged in \_\_\_\_\_\_\_\_\_\_\_\_ to each other.**
* **Types of Symmetry:**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ---- no particular symmetry.**

**Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ -- organized similar to a \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ---- has definite \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_ halves, adaptation for movement.**

 **Ex: \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **For animals with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ symmetry, we refer to areas of the body:**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_----- back side/top side**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_----- belly side/bottom side**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_----- front/head region**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_------ back end/ tail region**
* **Organisms can be classified as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ---- made of \_\_ \_\_\_\_\_\_\_ Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_----- made of \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ \_\_ \_\_\_\_\_\_ Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ organisms will have cells organized into \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **There are \_\_\_\_\_ layers that form during development ----number of layers present determines how they are organized**
* **\_\_\_ \_\_\_\_\_\_\_\_\_:**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Endoderm----**
	+ **\_\_\_\_\_\_\_\_\_\_\_ layer**
	+ **Becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ system**
* **Ectoderm----**
	+ **\_\_\_\_\_\_\_\_\_\_ layer**
	+ **Becomes \_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_ coverings and \_\_\_\_\_\_\_\_\_\_\_\_ system**
* **Mesoderm-----**
	+ **\_\_\_\_\_\_\_\_\_\_ layer**
	+ **Becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Type of Coelom**

* **\_\_\_\_\_\_\_\_\_\_\_ is an \_\_\_\_\_\_\_\_\_\_\_\_ body cavity where \_\_\_\_\_\_\_\_\_ organs are found.**
	+ **Importance:**
		- **Allows \_\_\_\_\_\_\_\_\_\_ to freely \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_ without being squeezed by animal’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
		- **Filled with \_\_\_\_\_\_\_\_\_\_\_\_\_, which \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ organs from \_\_\_\_\_\_\_\_\_\_\_\_\_.**
		- **Fluid within can sometimes act as a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
		- **Fluid in some can carry \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_----does what your \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_ vessels do.**

**Type of Body Plan**

* **Two body plans are present in the animal kingdom:**
	+ **Sac plan:**
		- **Incomplete \_\_\_\_\_\_\_\_\_\_\_ system**
		- **Only \_\_\_\_\_\_\_ body opening.**
		- **Ex: \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_**
* **Tube-within-a-tube plan:**
	+ **Complete \_\_\_\_\_\_\_\_\_\_\_\_\_ system**
	+ **\_\_\_\_\_\_\_\_ body openings----- allows for specialization along the length of the \_\_\_\_\_\_\_\_.**
	+ **Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Segementation**

* **Segmentation is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of body parts along the \_\_\_\_\_\_\_\_\_\_ of the body.**
	+ **Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Support--- what holds the \_\_\_\_\_\_\_\_ of the organism’s body**
* **\_\_\_\_ types:**
	+ **Hydrostatic skeleton ---**
		- **\_\_\_\_\_\_\_\_ fills \_\_\_\_\_\_\_ within the body**
		- **Seen in \_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_, \_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_**
* **Exoskeleton---**
	+ **Hard segments that \_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **Restricts the \_\_\_\_\_\_\_\_\_\_ of the animal---animal must shed it (or molt) to form a \_\_\_\_\_\_ \_\_\_\_\_\_\_ that has room for \_\_\_\_\_\_\_\_\_\_\_.**
* **Endoskeleton----**
	+ **Composed of \_\_\_\_\_\_\_\_\_\_\_ and/or \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **Seen in all \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **Digestion: taking \_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ food.**
	+ **Intracellular---**
		- **Food taken in and \_\_\_\_\_\_\_\_\_\_ \_\_\_\_ is done by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells/layers**
		- **Seen in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **Extracellular----**
	+ - **Digestion performed by \_\_\_\_\_\_\_\_\_\_ such as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
		- **Seen in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_.**
* **Internal transport: process of getting \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ around the body; done in various ways**
	+ **Through \_\_\_\_\_\_\_\_\_\_ Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Using \_\_\_\_\_\_\_\_\_\_\_\_\_ Ex: \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Using \_\_\_\_\_\_\_\_\_\_\_\_\_ such as \_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Open circulatory system:**
	+ **\_\_\_\_\_\_\_\_\_\_\_\_\_ but no \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Seen in \_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_**
* **Closed circulatory systems:**
	+ **Seen in \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Blood travels within \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Blood is pumped by a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Respiration: exchange of \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Simple organisms---- exchange \_\_\_\_\_\_\_\_ directly through their \_\_\_\_\_\_\_\_\_\_\_\_ or their \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
		- **Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Larger animals----- organs such as \_\_\_\_\_\_\_\_ (tiny tubes), \_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_**
* **Excretion: Removal of \_\_\_\_\_\_\_\_\_ products**
	+ **Simple animals---- use \_\_\_\_\_\_\_ or sets of \_\_\_\_\_\_\_\_ to get rid of \_\_\_\_\_\_\_\_**
		- **Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_**
	+ **Complex animals---- develop \_\_\_\_\_\_\_ such as the \_\_\_\_\_\_\_\_\_\_.**
		- **Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Nerve Net**
	+ **Web of \_\_\_\_\_\_\_\_\_ cells held together**
	+ **Seen in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (jellyfish, coral, sea anemones), and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (starfish, sea urchins)**
* **Animals with \_\_\_\_\_\_\_\_\_\_\_\_\_ symmetry have a head with all \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ at the front end of the organism. This is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **Simple worms----- cluster of nerve cells called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **More complex animals have \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **Vertebrates have a \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ in addition to a more developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
	+ **Many animals have well-developed \_\_\_\_\_\_\_\_\_\_\_ such as \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ & \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**