**Zoology Bird Notes: Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the study of birds.**

**Characteristics of Birds:**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
5. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
6. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
7. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
8. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Classification:**

**Kingdom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**---Phylum\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**--------Subphylum\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**---------------Class \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Aviation = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Types of Feathers:**

**Down Feathers---- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Contour Feathers---\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Flight feathers--- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* **Feathers are covered in \_\_\_\_\_\_ to keep them \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_-“like water off a duck’s back” – this oil is secreted from a \_\_\_\_\_\_\_\_\_\_\_**

**\_\_\_\_\_\_\_\_\_\_\_\_.**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a behavior that replaces the oil on feathers, and repairs broken links on the \_\_\_\_\_\_\_\_\_\_\_\_\_.**

**Evolution of Birds (from reptiles)**

* **Archaeopteryx—“\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”**
* **­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_ --- Had teeth in beak, bony tail, claws on wings.**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ --- Had feathers, and fused collarbone(wishbone)**

****

**Adaptations for Flight:**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

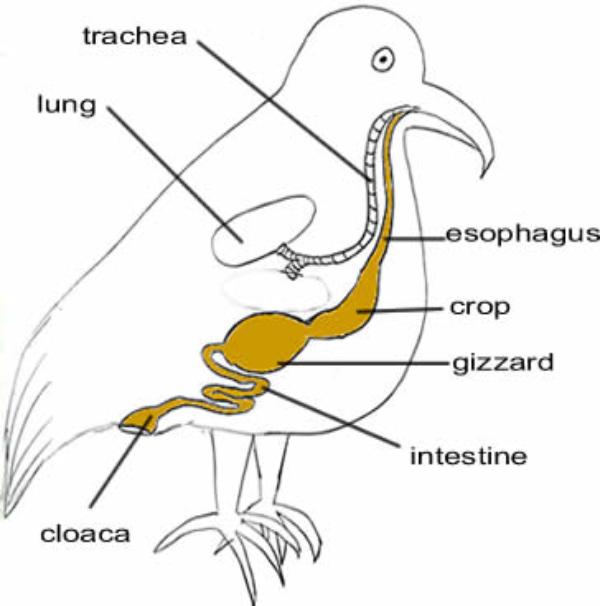
**Feeding:---- shape of the \_\_\_\_\_\_\_\_\_\_ related to food(diet).**

**Examples: \_\_\_\_\_\_\_\_\_\_ beaks used for tearing meat. \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ beaks for spearing fish.**

**Digestive System:**

* **Birds lack \_\_\_\_\_\_\_\_\_\_\_\_**
* **\_\_\_\_\_\_\_\_\_ stores and moistens food.**
* **\_\_\_\_\_\_\_\_\_\_\_ grinds the food.**

**Label this bird’s digestive system:**

****

**Others Systems:**

**Respiration:**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_----\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_---\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_----\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **A one way flow of oxygen.**

**Circulation:**

* **\_\_\_ chambered heart (\_\_\_\_\_\_\_\_\_\_\_---loop system)**

**Excretion:**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_ (uric acid) & Cloaca**

**Nervous System:**

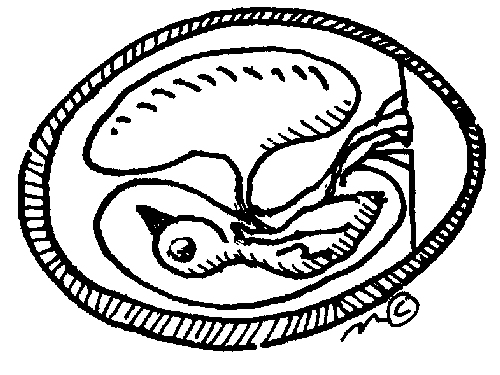
* **Well developed sense organs**
* **A \_\_\_\_\_\_\_\_\_\_\_\_ brain**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = thinking, decision making**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = coordinated movement**
* **Medulla Oblongata = \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* **Optic lobes = \_\_\_\_\_\_\_\_\_\_\_\_**
* **Olfactory lobes = \_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Movement:**

* **Flightless (\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_.....etc.)**
* **Forelimbs modified for flight = \_\_\_\_\_\_\_\_\_\_**
* **Collarbones are fused making a strong base for flight muscles --- fused bone is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ make the bones light in weight**
* **Strong chest muscle attach to a \_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_\_\_ (breastbone)**

**Reproduction:**

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fertilization + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Egg**
* **Incubation**
* **“\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_”**

****