Type: Conical (cone-shaped) **Type:** Large scoop bill **Type:** Straw-like, with a long tongue Adaptation: Wide, pointed bill for Adaptation: Large pocket-like bill for Adaptation: Thin, pointed bill for cracking open nuts and seeds scooping fish reaching into flowers Bill Bill (Example: Ruby-throated (Example: Northern Cardinal) (Example: Brown Pelican) hummingbird) Type: Long bill, sometimes curved Type: Hooked, sharp bill Type: Chisel bill **Adaptation:** Long and/or pointed for Adaptation: strong, triangular, and **Adaptation:** Sharp, curved bill for probing into sand, mud, and soil to ripping and tearing pointed bill for drilling holes catch worms, snails, and other prey Bill Bill (Example: Osprey) (Example: Red-headed woodpecker) (Example: Curlew) **Type:** Wide bill; works like a strainer **Type:** Passive, soaring wings **Type:** Active, soaring wings Adaptation: Rounded bill lined with Adaptation: Long, broad wings for **Adaptation:** Long, narrow wings for ridges for straining insects and plants soaring high for long periods of time, soaring for long periods of time soaring on heat thermals (vertical in water columns of hot air) Wings Wings (Example: Mallard Duck) (Example: vultures) (Example: albatrosses) Type: Elliptical wings **Type:** Hovering wings **Type:** High-speed wings Adaptation: For short bursts of **Adaptation:** Small wings with Adaptation: Long and thin, shorter speed, quick takeoff, tight, specialized nerves and muscles for than active, soaring wings. Can acrobatic movements in flight quick, sustained movements maintain speed.

Wings

(Example: Ruby-throated

hummingbird)

Wings

(Example: Chimney Swifts)

Wings

(Example: sparrows)



Type: Paddle-like with webbed toes **Adaptation:** For swimming, paddling, walking and diving through water



Feet/Toes (Example: cormorants)

Type: Tall legs, toes long and spread **Adaptation:** For walking in soft, wet habitats like lakes and marshes



(Example: Great Blue Heron)

Type: Zygodactyl (two toes in front, two in back)

Adaptation: Strong grip for climbing up, down, and around tree trunks



Feet/Toes (Example: Eastern Screech Owl)

Type: Sharp talons, strong grip **Adaptation:** For capturing, carrying, and holding prey



Feet/Toes (Example: Red-Shouldered Hawk)

Type: Long, independent, flexible toes **Adaptation:** Interlocking muscles that help toes grasp and perch on branches



Feet/Toes (Example: Carolina Wren)

Type: Sharp claws, thick toe pads **Adaptation:** Thick feet and toe pads for scratching, running, and kicking



Feet/Toes (Example: Chickens)

Type: Wide bill, works like a strainer **Adaptation:** Rounded bill lined with ridges for straining insects and plants in water



Bill (Example: Mallard Duck)

Type: Passive, soaring wings **Adaptation:** Long, broad wings for soaring high for long periods of time, soaring on heat thermals (vertical columns of hot air)



Wings (Example: vultures)

Type: Active, soaring wings **Adaptation:** Long, narrow wings for soaring for long periods of time



(Example: albatrosses)

Type: Elliptical wings **Adaptation:** Short bursts of speed, quick takeoff, tight, acrobatic movements in flight



Wings (Example: sparrows)

Type: Hovering wings **Adaptation:** Small wings with specialized nerves and muscles for quick, sustained movements



Wings (Example: Ruby-throated hummingbird)

Type: High-speed wings **Adaptation:** Long and thin, shorter than active, soaring wings. Can maintain speed.



