**Birds of North America**

SASE 9











**Life…what is it?**

* Capacity for
  + O\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + G\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + R\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + M\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (i.e. making energy)
  + R\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + A\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Life…how did it start?**

* Electric spark; community clay; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ vents; ice, ice baby; RNA, mitochondria, pan\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Life…how do we make sense of all the different types?**

* Theory of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – Charles Darwin
* (T)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (kindom, phylum, class, order, family, genus, species)
* Carl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (18th century Swedish scientist) – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ binomial nomenclature for organism names
* (S)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: a group of individuals that actually or potentially interbreed

Taxonomic Naming System Practice

|  |  |  |  |
| --- | --- | --- | --- |
| **Taxonomic Group** | **Humans** | **Chimpanzee** | **Black-Capped Chickadee** |
| Kingdom |  |  |  |
| Phylum |  |  |  |
| Class |  |  |  |
| Order |  |  |  |
| Family |  |  |  |
| Genus |  |  |  |
| Species |  |  |  |

Bird Classification – Families

|  |  |  |
| --- | --- | --- |
| **Family – Latin** | **Family – English** | **Examples** |
| Anatidae | Ducks, Geese and Swans |  |
| Phasianidae | Partridges, Grouse, Turkeys and Old World Quail |  |
| Podicipedidae | Grebes |  |
| Caprimulgidae | Goatsuckers |  |
| Trochilidae | Hummingbirds |  |
| Gruidae | Cranes |  |
| Charadriidae | Plovers and Lapwings |  |
| Haematopodidae | Oystercatchers |  |
| Scolopacidae | Sandpipers, Phalaropes and Allies |  |
| Laridae | Gulls, Terns and Skimmers |  |
| Alcidae | Auks, Murres and Puffins |  |
| Gaviidae | Loons |  |
| Phalacrocoracidae | Cormormants |  |
| Ardeidae | Bitterns, Herons and Allies |  |
| Pandionidae | Ospreys |  |
| Accipitridae | Kites, Hawks, Eagles and Allies |  |
| Strigidae | Owls |  |
| Alcedinidae | Kingfishers |  |
| Picidae | Woodpeckers and Allies |  |
| Falconidae | Falcons |  |
| Tyrannidae\* | Tyrant Flycatchers |  |
| Laniidae\* | Shrikes |  |
| Vireonidae\* | Vireos |  |
| Corvidae\* | Jays, Magpies and Crows |  |
| Hirundinidae\* | Swallows |  |
| Paridae\* | Chickadees |  |
| Sittidae\* | Nuthatches |  |
| Regulidae\* | Kinglets |  |
| Turdidae\* | Thrushes |  |
| Bombycillidae\* | Waxwings |  |
| Fringillidae\* | Finches and Allies |  |
| Parulidae\* | Wood-Warblers |  |
| Emberizidae\* | New World Sparrows and Allies |  |
| Cardinalidae\* | Cardinals, Grosbeaks and Allies |  |
| Icteridae\* | Blackbirds and Allies |  |

\*Perching birds belonging to the order Passeriformes; more species than all the other orders together; highly diversified; adapted to perching; 3 toes in front, one behind; small to medium size; contains all songbirds

Bird Biology Basics

* Unique from all other animals because they have (w)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and (f)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Feathers enable birds to fly but also provide (i)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, (c)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and (c)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with rivals and mates
* Birds are a class of (r)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Most birds are able to (f)\_\_\_\_\_\_\_\_\_\_\_
* Birds are found all over the world – some stay in one place, some (m)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Birds reproduce (s)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ via \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fertilization
* (O)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a branch of zoology (which is a branch of biology) that concerns the study of birds
* Birds have lightweight (b)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ instead of jaws full of heavy teeth like other animals
* Many bones in a bird’s body are (h)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The earliest fossil identified as having a close affinity to birds is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Birds are thought to have evolved \_\_\_\_\_\_\_\_\_\_\_\_\_ million years ago
* Female birds are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sex, opposite to humans
* Because birds are everywhere and highly visible, the health of bird populations can be good indicators of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bird Identification

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| --- | --- | --- | --- |
| Bird Name (English/ Latin) | Image/ Photo/ Drawing;  Physical Characteristics | Call Description/ Details | Sightings |
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