Scientists around the world use a standardized system for classifying species of plants and animals. This so-called “Linnaean Classification System”—named for its inventor, Carl Linnaeus—has been used for over 250 years to help scientists communicate about biological diversity and, more recently, evolutionary relationships. In this system, closely related species are assigned to the same genus. Similarly, closely related genera are assigned to the same family. Likewise for families assigned to orders, orders assigned to classes, classes assigned to phyla, and phyla assigned to kingdoms.

Each one of the levels in the classification is a rank and members of the same rank are hypothesized to be more closely related to one another than to other groups at the same rank.

Kingdom Animalia

**CORALS- Cards P, W, L, Q, J**

Card P: A stony "starlet coral" that lived in shallow water and built reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

Phylum Cnidaria

 Class Anthozoa

 Order Scleractinia

 Family Siderastreidae

 Genus *Siderastrea*

 Species *Siderastrea pliocenica*

Card W: A stony coral that lived in shallow water and built reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles. This species survives to the present day.

 Family Meandrinidae

 Genus *Meandrina*

 Species *Meandrina meandrites*

Card L: A stony "brain coral" that lived in shallow water; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

 Family Faviidae

 Genus *Solenastrea*

Species *Solenastrea hyades*

Card Q: A stony "rose coral" that lived in shallow water, but did not form reefs; fed by grabbing small bits of food that passed by using very small, stinging tentacles. This species survives to the present day.

 Genus *Manicina*

 Species *Manicina areolata*

Card J: A coral that lived in shallow water and encrusted (covered) the shells of snails; fed by grabbing small bits of food that passed by using very small, stinging tentacles.

Family Rhizangiidae

 Genus *Septastrea*

 Species *Septastrea marylandica*

**ECHINODERMS- Cards F, C, D**

Card F: A "purple-spined" sea urchin (most fossils are missing their spines) that lived in shallow water on the sea floor and mostly ate algae (herbivore). This species survives to the present day.

Phylum Echinodermata

 Class Echinoidea (sea urchins and sand dollars)

 Order Arbacoida

 Family Arbaciidae

 Genus *Arbacia*

Species *Arbacia punctulate*

Card C: A sand dollar that lived in shallow water and spent much of its time burrowed in the sand; fed on decaying matter in the sand (detritivore).

 Order Clypeasteroida

 Family Mellitidae

 Genus *Mellita*

 Species *Mellita aclinensis*

Card D: A sea urchin that lived on the sea floor and had a shell covered in short spines.

 Order Cassiduloida

 Family Cassidulidae

 Genus *Rhyncholampas*

 Species *Rhyncholampas evergladensis*

**MOLLUSCS- BIVALVES- Cards A, O, M, B, K, S**

Card A: An ark clam that captured food particles from the passing water (suspension feeder).

Phylum Mollusca

 Class Bivalvia

 Order Arcida

 Family Arcidae

 Genus *Anadara*

 Species *Anadara aequalitas*

Card O: A coquina clam that lived in huge numbers on the seafloor in shallow water; captured food particles from the passing water (suspension feeder).

 Order Imparidentia

 Family Donacidae

 Genus *Donax*

 Species *Donax fossor*

Card M: A spiny jewel box clam that lived on the seafloor; captured food particles from the passing water (suspension feeder). This species survives to the present day.

 Family Chamidae

 Genus *Arcinella*

 Species *Arcinella cornuta*

Card B: A jewel box clam that lived on the seafloor; captured food particles from the passing water (suspension feeder).

 Genus *Chama*

 Species *Chama heilprini*

Card K: An egg cockle that lived on soft sediments on the seafloor and were able to move short distances using a powerful "foot"; captured food particles from the passing water (suspension feeder). This species survives to the present day.

Family Cardiidae

 Genus *Laevicardium*

 Species *Laevicardium mortoni*

Card S: A lucine clam that lived buried deep in the sediment; symbiotic bacteria allowed them to survive in habitats with little oxygen. Captured food particles from the passing water (suspension feeder).

 Family Lucinidae

 Genus *Anodontia*

 Species *Anodontia santarosana*

**MOLLUSCS- GASTROPODS- Cards G, H, R, U, X, E, T, V, I, N**

Card G: Sundial snail that fed on corals (carnivore). This species survives to the present day.

Phylum Mollusca

 Class Gastropoda

 Order Heterobranchia

 Family Architectonicidae

 Genus *Architectonica*

 Species *Architectonica nobilis*

Card H: Moon snail that crawled on the seafloor and hunted snails and clams; attacked its prey by drilling small holes in their shells (carnivore).

Order Littorinimorpha

 Family Naticidae

 Genus *Natica*

 Species *Natica precursor*

Card R: Conch that fed on algae (herbivore). This species survives to the present day.

 Family Strombidae

 Genus *Strombus*

 Species *Strombus pugilis*

Card U: Hat snail that lived above the seafloor and fed on food particles from the passing water (suspension feeder). This species survives to the present day.

 Family Calyptraeidae

 Genus *Calyptraea*

 Species *Calyptraea centralis*

Card X: Hat snail that lived above the seafloor and fed on food particles from the passing water (suspension feeder). This species survives to the present day.

 Genus *Trochita*

 Species *Trochita floridana*

Card E: Rock snail that crawled on the seafloor and hunted snails and clams; attacked its prey by drilling small holes in their shells (carnivore).

Order Caenogastropoda

 Family Muricidae

 Genus *Hexaplex*

 Species *Hexaplex hertweckorum*

Card T: Turret snail that mostly rested on the seafloor and gathered food particles from the passing seawater (suspension feeder).

Family Turritellidae

 Genus *Turritella*

 Species *Turritella magnasulcus*

Card V: Whelk that hunted clams and used its shell to wedge open their shells (carnivore).

 Family Buccinidae

 Genus *Sinistrofulgur*

 Species *Sinistrofulgur contrarium*

Card I: Cone snail that crawled on the seafloor and hunted and ate worms. This species survives to the present day.

 Family Conidae

 Genus *Conasprella*

 Species *Conasprella jaspidea*

Card N: Olive snail that burrowed through the sand and fed on carrion (scavenger).

 Family Olividae

 Genus *Americoliva*

 Species *Americoliva edwardsi*