

October 2, 2020
MSE 2101 topics

- Life!
- Still remember the 6-prong test?
- Species: classical and modern definition
- Naming species: *Genus* + *species* (generic + specific)
i.e. *Homo sapiens*, *E. coli*, *Equus caballus*, *Equus asinus*
- Theory of Evolution – the beginnings
 - Anaximander: water is the source of everything!
 - Heraclitus: Panta Rhei (everything changes with time)
 - Empedocles: poorly adapted creatures would perish
 - Aristotle: species fixed and unchanging
 - Lamarck: fossils vs. living organisms
“Inheritance of acquired characteristics”
- Darwin 1859: natural selection
 - evidence: finches at Galapagos islands, armadillo fossils
 - artificial selection: breeding of plants and animals
 - timescales
 - molecular basis
- Chemical bonds – single, double, triple
- Carbon-based? What do you mean carbon-based?
- Non-carbon based life?