Source: ⟦KBhBIO101Viruses⟧

1 | **Viral Genetic Mutations**

1.1 | **Genetic Shift**

Whole segments of genome exchange abruptly as two flu viruses infect the same cell to create a new strand. In this case, Viruses recombinate by crossing-over mechanism (remember how ⟦KBhBIO101Retroviruses⟧ HIV need protease to cut parts? when that shuffles) or genome segment reassortment (two viruses cross-talk by infecting the same host cell). Think! the flu

1.2 | **Genetic Drift**

This usually occurs due an error in a polymerase-driven process.

Single/groups of nucleotides flip slowly over time due to mistakes in ⟦KBhBIO101RNAReplication⟧.

The former is an environment-dependent process, where the latter is able to be modeled as it is due to transcription mistake.

1.3 | **Mutation w.r.t.** ⟦KBhBIO101TypesOfViruses⟧
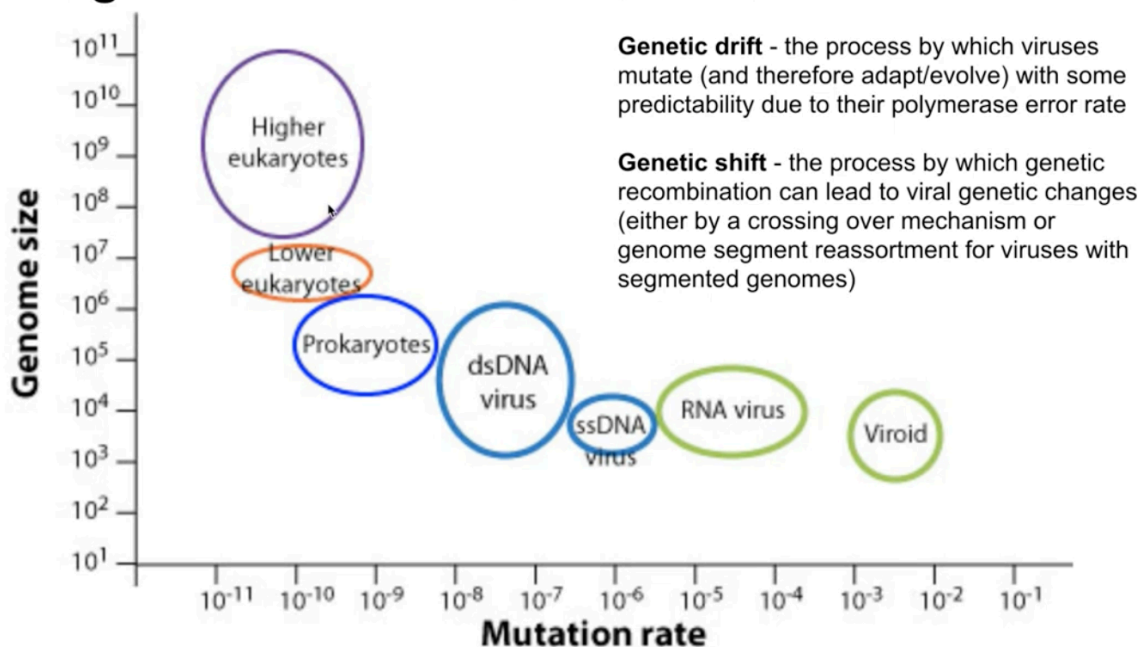

Figure 1: Screen Shot 2020-10-12 at 11.24.39 PM.png

- **RNA viruses** could mutate more because it does not have checks
- **More complex+largest viruses** (DNA viruses) harder to mutate