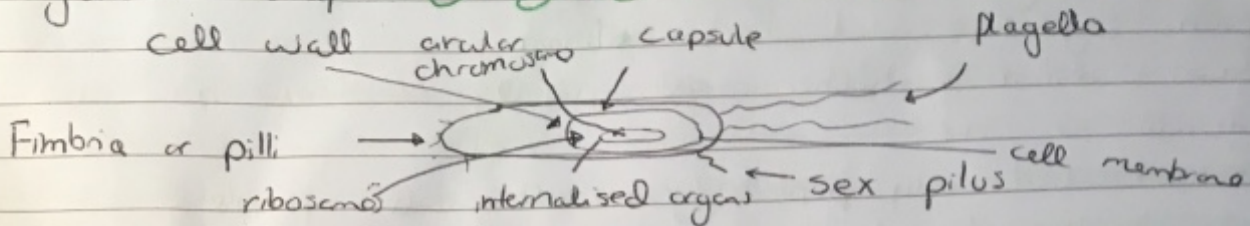
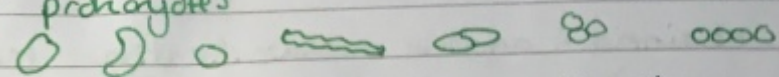


The structure of prokaryotes

• general shapes



plasma membrane = double layer phospholipids + membrane proteins

- Composed of different phospholipids
- **Archaea** = branched isoprenoids linked to L-glycerol (ester linkage)
- **Eubacteria / eukaryotes** = unbranched fatty acid linked to D glycerol by ester

DNA = less than eukaryote mostly consisting of circular chromosome not surrounded by membrane, located in nucleoid region.

- Many smaller rings of DNA called plasmids

Ribosomes = composed of proteins and RNA molecules, translation

Cell wall, capsule + fimbria = not all prokaryotes have protein capsule and cell wall. Some have large structures that allow them to attach to substrate.

Fimbriae allow to stick to substrate / other bacteria in colony

Internal organ = prokaryotes lack compartmentalization, some do have specialised membranes (usually infoldings of membrane)

Cell surface structure = maintains cell shape, protects, prevents bursting in hypotonic environment

- contain **peptidoglycan** = network sugar polymers cross linked by polypeptides
- **Archaea** contain polysaccharides + proteins but lack peptidoglycan