

## 3 PARTS OF CELL THEORY

1. All organisms are composed of one or more cells.
2. The cell is the basic unit of structure and organization in organisms.
3. All cells come from preexisting cell.

## Prokaryotes

1. NO NUCLEUS
2. NO MEMBRANE BOUND ORGANELLES
3. SMALL AND SIMPLE
4. ALL ARE UNICELLULAR
5. STICKY PROTECTIVE CAPSULE
6. CELL WALL
7. ALL BACTERIA
8. CIRCULAR DNA IN NUCLEOID REGION
9. CIRCULAR DNA SEPARATE FROM NUCLEOID REGION CALLED PLASMIDS
10. FIRST CELLS TO EVOLVE

## Both

1. BOTH HAVE RIBOSOMES
2. HAVE RNA AND DNA
3. HAVE PROTEINS
4. HAVE CYTOPLASM
5. HAVE CELL MEMBRANE
6. BOTH CAN HAVE UNICELLULAR ADAPTATIONS (flagella, cilia)

## Eukaryotes

1. HAS NUCLEUS THAT HOLDS DNA
2. HAS MEMBRANE BOUND ORGANELLES (mitochondria, nucleus, chloroplast)
3. UNICELLULAR OR MULTICELLULAR
4. INCLUDES EVERYTHING BUT BACTERIA (plants, animals, fungi, protists)
5. DNA COILED UP IN NUCLEUS
6. LARGER AND MORE COMPLEX