

Aquifex:

Most ancient
Hyperthermophile
Chemolithotrophic

Spirochetes:

Flexible coils
Treponema pallidum
Borrelia burgdorferi

Green Sulfur:

Anoxygenic photosynthesis
 $\text{H}_2\text{S} \rightarrow \text{S}^0 \rightarrow \text{SO}_4$

Chlamydia:

Obligate intracellular bacteria
Chlamydia trachomatis

Cyanobacteria:

Blue green bacteria
Oxygenic photosynthesis;
First O₂- evolving creatures on earth
Atmosphere converted from anoxic to oxic
(*Synechococcus*)

Gram positive:

Staphylococcus
Bacillus

Proteobacteria:

Gram negative rods and cocci
Most common in medicine, agriculture, industry
Phenotypes diverse
e.g. Enteric
Pseudomonas,
N₂-fixing *Azotobacter*