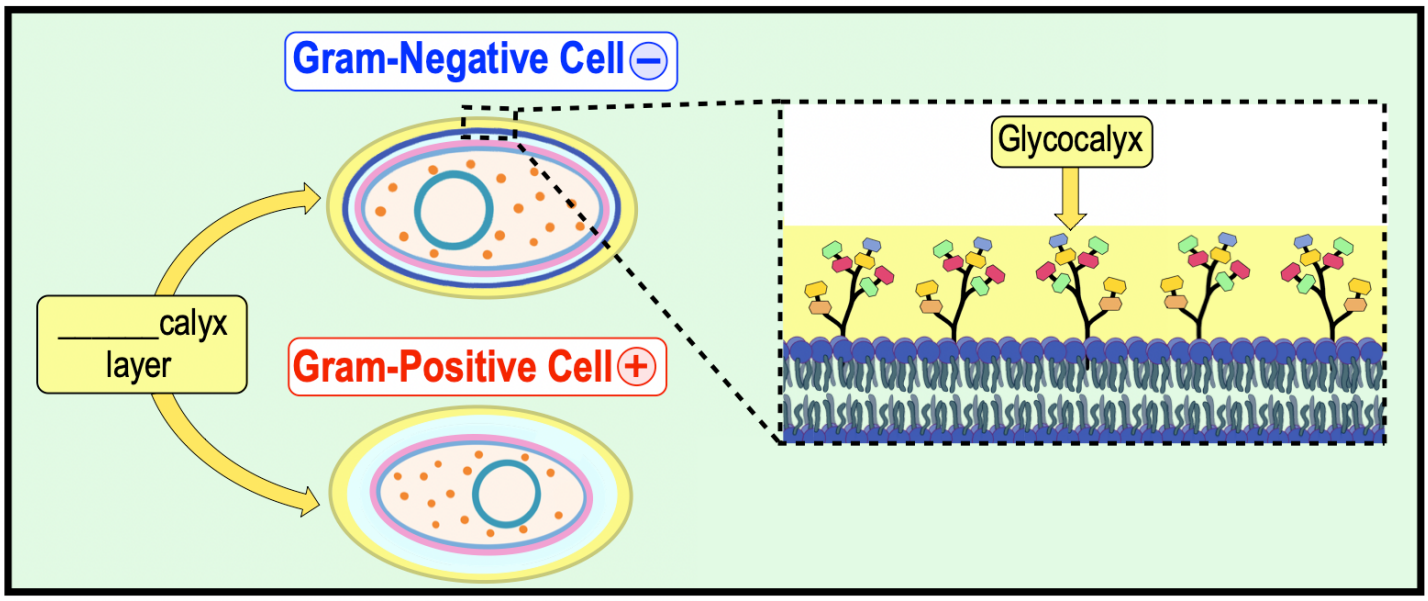
CONCEPT: THE GLYCOCALYX: CAPSULES & SLIME LAYERS

●Most bacteria are surrounded by a layer of a *sticky gel-like* substance called the _____.

Glycocalyx: a complex poly_____ layer surrounding the outside of a cell.

- □ Promotes _____ of cells to solid surfaces & to other cells.
- □ _____ the cell from dehydration & can collect nutrients from the environment for energy.



●There are different categories of the glycocalyx based on the _____ of its structure.

PRACTICE: What is the function of the glycocalyx in bacterial cells?

a) Attachment of cells to surfaces and other cells.
b) Protein synthesis.
c) Phagocytosis of other cells.
d) DNA replication.

PRACTICE: _____ is the slime-like layer of polysaccharides on the outer surface of bacterial cells.

a) The outer membrane.
b) The cytoplasm.
c) The glycocalyx.
d) The periplasm.
e) The S-layer.

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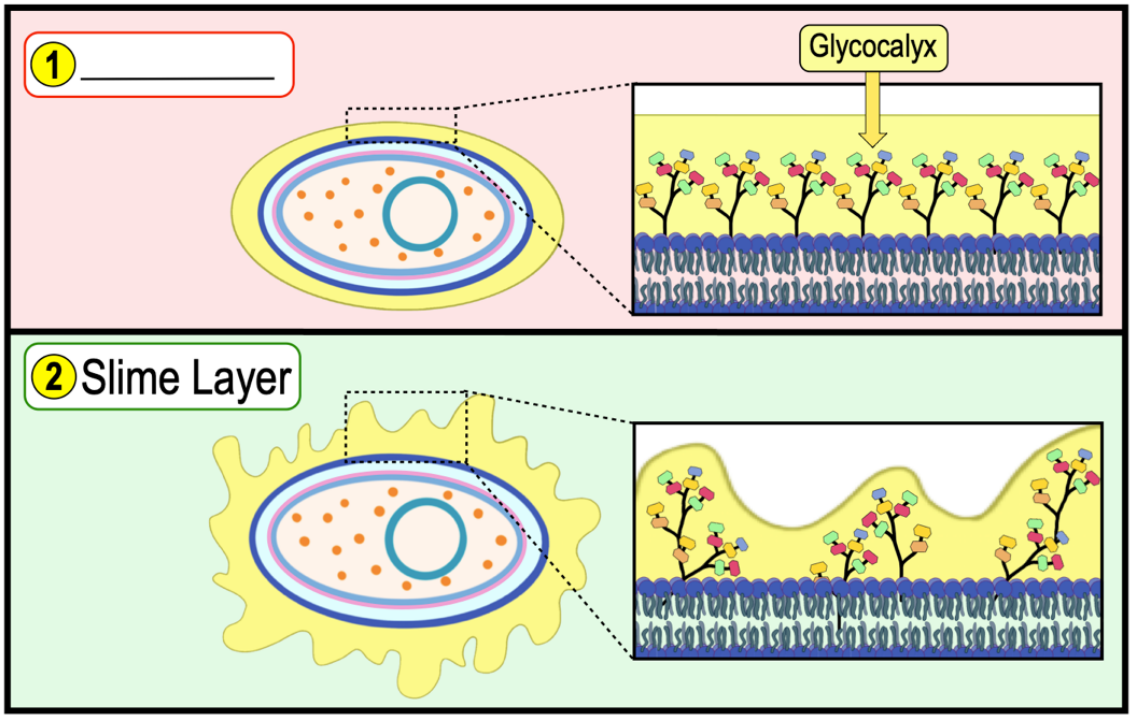
Capsules vs. Slime Layers

●There are ____ categories of the *glycocalyx*:

1) Capsules: highly organized & dense layer of polysaccharides _____ anchored to the cell.

2) _____ **Layers:** *unorganized* layer of polysaccharides easily removable from the cell.



●The *glycocalyx* is important for the formation of _____.

PRACTICE: _____ are an organized layer of polysaccharides tightly anchored to the cell wall.

a) Capsules.
b) Periplasms.
c) Slime-layers.
d) Teichoic acids.
e) Lipopolysaccharides.

PRACTICE: Which of the following is not a function of slime layers and capsules:

a) Protection against dehydration.
b) Collect nutrients from its surroundings.
c) Attachment to other cells & solid surfaces.
d) Anchors the outer membrane to peptidoglycan.