

Unit Three Study Guide

Please review and study the following items from your binder

- Ribbon of Life
- Cell membrane notes
- Egg experiment
- Cell membrane quiz
- Protists notes
- Bacteria readings
- Bacteria QR codes
- 1 million dots – Bacteria Growth
- Bacteria quiz

What is the order of the ribbon of life?

atom - molecule - organelle - cell - tissue - organ - organ system -
complex organism

What are cell membranes made of? How are they arranged? Do they like water?

Phospholipids - phosphate head - hydrophilic - likes water
- lipid tail - hydrophobic - doesn't like water
(fatty acid)



What happened to the egg in distilled water (100% water)? Corn syrup?

Distilled water - absorbed water - osmosis water went in egg
Corn syrup - let out water - osmosis water left egg

Unicellular vs. Multicellular

unicellular - organism made up of one cell ex. protists
multicellular - organisms made up of many cells ex. plant
animal.

The smallest unit of life is....

a cell

Prokaryotic vs. Eukaryotic

Prokaryotic - no nucleus ex. bacteria

Eukaryotic - nucleus ex. plant, animal, protist

What is diffusion?

The random movement of molecules from a higher concentration to lower concentration ex. dye in water

What is osmosis?

The random movement of water through a semi-permeable membrane from a higher concentration to lower concentration ex. egg

Where do bacteria like to live?

Warm
wet
nutrients
nooks & crannies - small places

What shapes to bacteria come in?

Coccus - Spherical
Bacillus - rod
Spirillum - spiral

What are the two hair-like structures that come off of the bacteria cell?

flagella - helps with movement - long tail-like
Pili - short hairs - grab on to things

What is the protective layer around the bacteria cell?

Capsule - can be destroyed by antibiotic

How does bacteria grow and reproduce?

Asexually through binary fission, double every 20 min. exponentially

Create a graph based on this data:

Min.	0	20	40	60	80	100	120	140	160	180	200	220
Fof Bacteria	1	2	4	8	16	32	64	128	256	512	1024	2048

