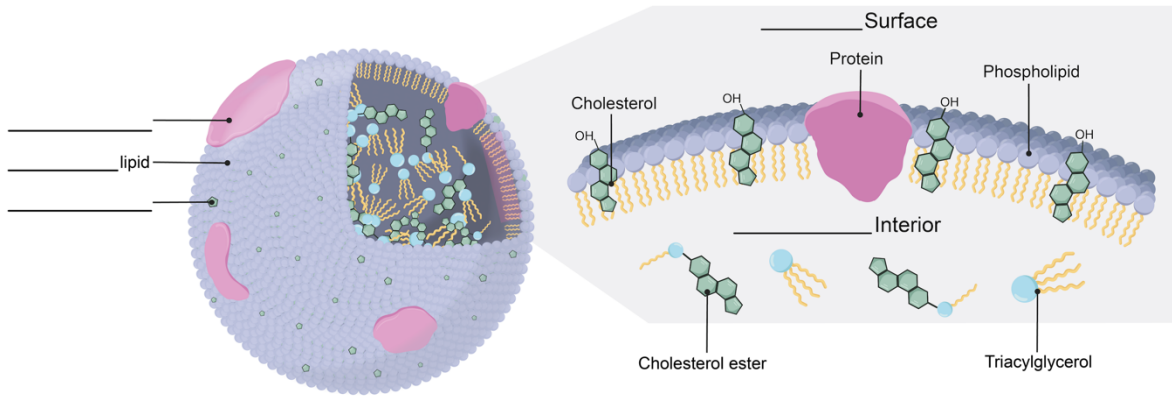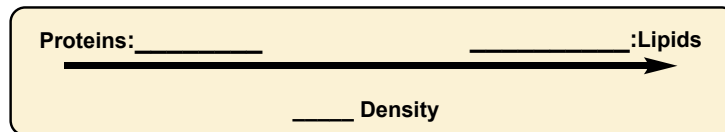## CONCEPT: LIPOPROTEINS FOR TRANSPORT

● **Recall:** lipids are nonpolar and therefore _____ in aqueous environment of the blood.

● **Lipoproteins:** spherical structures of lipids and proteins, serve as _____ vehicle for lipids.

Cholesterol esters: cholesterol ester-bonded to a FA.

_____ lipid

_____ Surface

Protein

Phospholipid

Cholesterol   OH   OH   OH

OH

_____ Interior

Cholesterol ester   Triacylglycerol

● Lipoproteins are classified by their _____.

Proteins:_____   _____:Lipids

_____ Density

Types of Lipoproteins			
Name	**Density**	**Lipids**	**Location**
Chylomicrons	_____	All _____ lipids	● _____ to liver, adipose and other tissues.
VLDL Very low density lipoproteins	_____	_____	● _____ to adipose tissue (storage) or other tissues (energy).
LDL Low density lipoproteins	_____	_____	● _____ to various tissues (cell membranes or steroid hormones). ● Excess is deposited on wall of _____.
HDL High density lipoproteins	_____	_____	● Various tissues back to _____. ● Converted to _____ and excreted.

EXAMPLE: Match each lipoprotein with their correct statements.

(I) chylomicron (II) VLDL (III) LDL (IV) HDL

_____ a) Takes triglycerides from liver to muscle cells.

_____ b) Considered "good" cholesterol because it removes excess cholesterol from the blood.

_____ c) Transport dietary lipids to various tissues.

_____ d) Most of cholesterol is transported to tissues that need it by this lipoprotein.