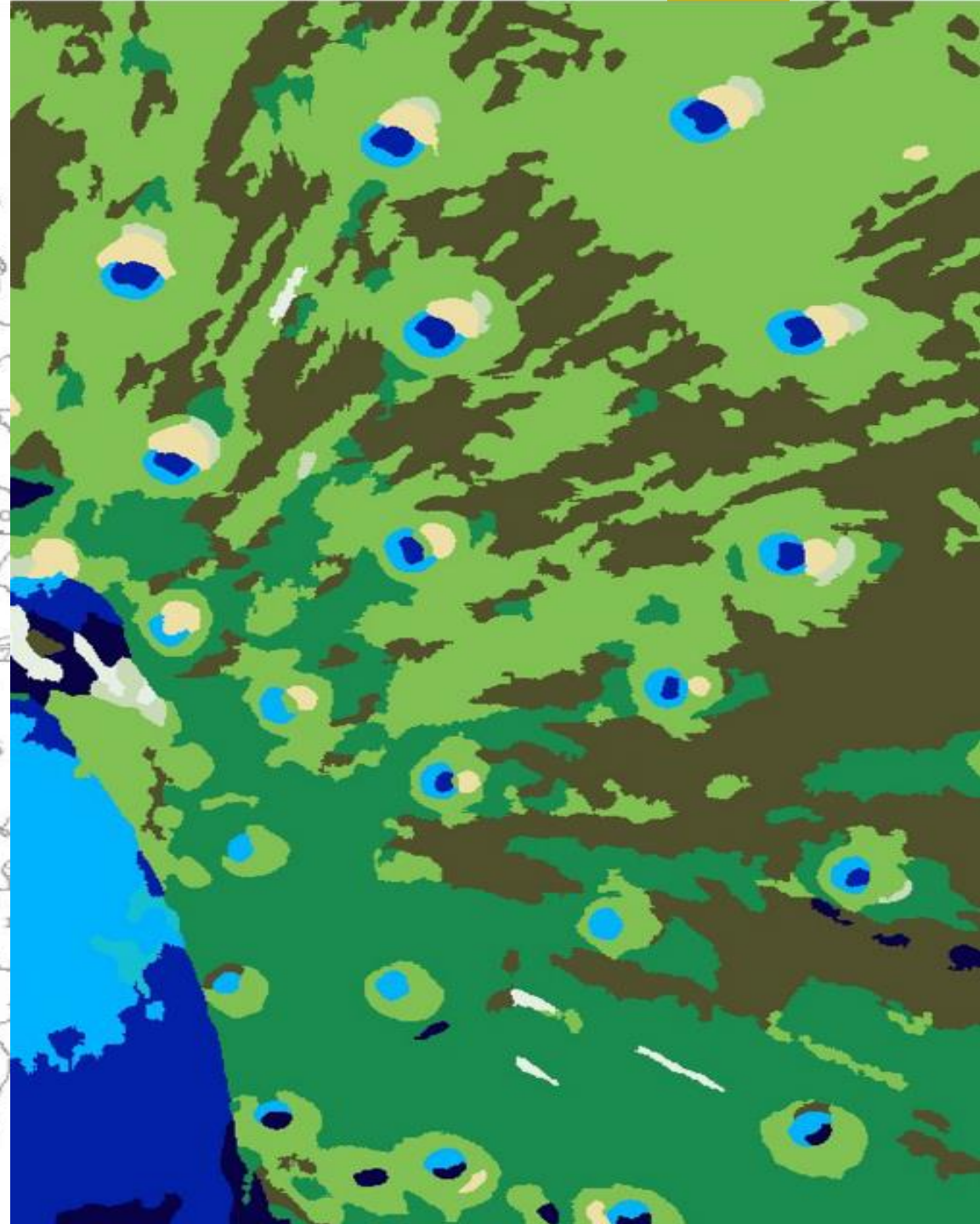


BIOLOGY-1

SWIFTY

500



1. The plasma membrane is flexible and is made up of organic molecules called: **Lipids & Proteins**.
2. Prokaryotes first formed: 3.5 billion years ago & Eukaryotes: 1.5 billion years
3. Animal Tissues: Epithelial Tissue: Simple **Epithelium** & Compound Epithelium, **Connective** Tissue, **Muscular** Tissue and **Nervous** Tissue.
4. **Connective** tissues: cartilage, bone, adipose, and **blood**.
5. Muscles are of three types: skeletal, smooth, and cardiac.
6. **Enamel** is the hardest substance in the human body and contains the highest percentage of **minerals**), helps in the **mastication** (chewing) of food.
7. Dental Formula is **2-1-2-3** :: Incisors (I), canine (C), premolars (PM) & molars (M).
8. Cell Nucleus in 1831: Robert Brown
9. Appendix (Vestigial Organ) was helpful in digesting roughage
10. Digestive Processes: Ingestion → Digestion → Absorption → Assimilation → Egestion
11. Sucrose = Glucose + **Fructose**, Maltose = Glucose + **Glucose**, Lactose = Glucose + **Galactose**

1. **Lysozyme** present in saliva acts as an **antibacterial** agent that prevents infections.
2. Average fat content of: Buffalo Milk → 7.2%, & Cow Milk → 4.4%
3. **Fats**, also known as **triglycerides**, are esters of three fatty acid chains and the alcohol glycerol.
4. Unhealthy Fats: Saturated Fat and Trans Fat. Foods containing trans-fat are usually labeled as “partially hydrogenated”.
5. Metabolic pathway from **glucose** to **lactic acid** which occurs in 10 metabolic steps is called **glycolysis**.
6. Most **animal fats are saturated** whereas the fats of plants and fish are generally unsaturated.
7. Vitamins & Deficiency diseases: Vitamin A—— Night blindness, Vitamin B1——Beriberi, Vitamin B2—— Ariboflavinosis, Vitamin B3 ——Pellagra, Vitamin B5 ——Paresthesia, Vitamin B6 ——Anemia, Vitamin B7 —— Dermatitis, enteritis, Vitamin B9 & Vitamin B12 — – Megaloblastic anemia, Vitamin C —— Scurvy, Swelling of Gums, Vitamin D —— Rickets & Osteomalacia, Vitamin E —— Less Fertility, Vitamin K —— Non-Clotting of Blood.
8. Water soluble vitamins (B & C) must be supplied regularly in diet because they are readily excreted in urine and **cannot be stored** (except vitamin B12)
9. Structure of proteins get disturbed on change of **pH** or **temperature**= Denaturation of Proteins



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अभिषेक चौहान

1. Amino acids are organic compounds containing an amino group [NH₂] and an acidic group [COOH]
2. ATP is known as the **energy currency** of the cell.
3. Proteins: **Keratin** (present in hair, wool, silk) and **Myosin** (present in **muscles**)
4. **Collagen** is the most abundant protein in animal world.
5. Pepsin converts proteins into proteoses and peptones (peptides).
6. **Thermophile**: a bacterium/microorganism that grows best at high temperatures (above 45°C).
7. The cell theory proposed by: Schleiden and Schwann
8. Bile helps in emulsification of fats. Emulsification: breaking into smaller units
9. Age of fishes is known as: **Devonian**
10. The **ribosomes**, which are present in all active cells, are the sites of **protein** manufacture.
11. Amoeba acquires its food by processes: Endocytosis (Endo=internal; Cyto=cell).
12. Discovery of the Electron microscope happened in year: 1940.
13. The metal present in the chlorophyll is: Magnesium
14. Lysosomes (“suicide bags”) are a kind of waste disposal system of the cell.
15. The important sugar in honey is: Fructose
16. Mitochondria are unique organelles as they have their own DNA and ribosomes.
17. Viticulture is related with: Grapes

1. A WBC in human blood is an example of a single cell which can change its shape.
2. Acid present in Vinegar is: Acetic Acid
3. Aldehyde: an organic compound containing the group — CHO, formed by the oxidation of alcohols.
4. Binding of oxygen with hemoglobin is primarily related to partial pressure of O₂.
5. Proteins, carbohydrates, lipids, and nucleic acids [DNA & RNA] are Macromolecules or Macro-biomolecules.
6. About 97 per cent of O₂ is transported by RBCs in the blood. The remaining 3 per cent of O₂ is carried in a dissolved state through the plasma.
7. Who discovered and coined the term cell in 1665: Robert Hooke.
8. Of 206 bones in the humans 126 make up the appendicular skeleton & 80 are of axial skeleton.
9. The nerve fibres of the Peripheral Neural System (PNS) are of two types: afferent fibres → tissues/organs to brain. efferent fibres → brain to tissues/organs.
10. The endocrine pancreas consists of 'Islets of Langerhans'.
11. Crossing over happens in Pachytene.
12. The stage between the two meiotic divisions is called interkinesis
13. In the 24 hour average duration of cell cycle of a human cell, eukaryotic cell division proper lasts for only about an hour. The interphase lasts more than 95% of the duration of cell cycle.



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