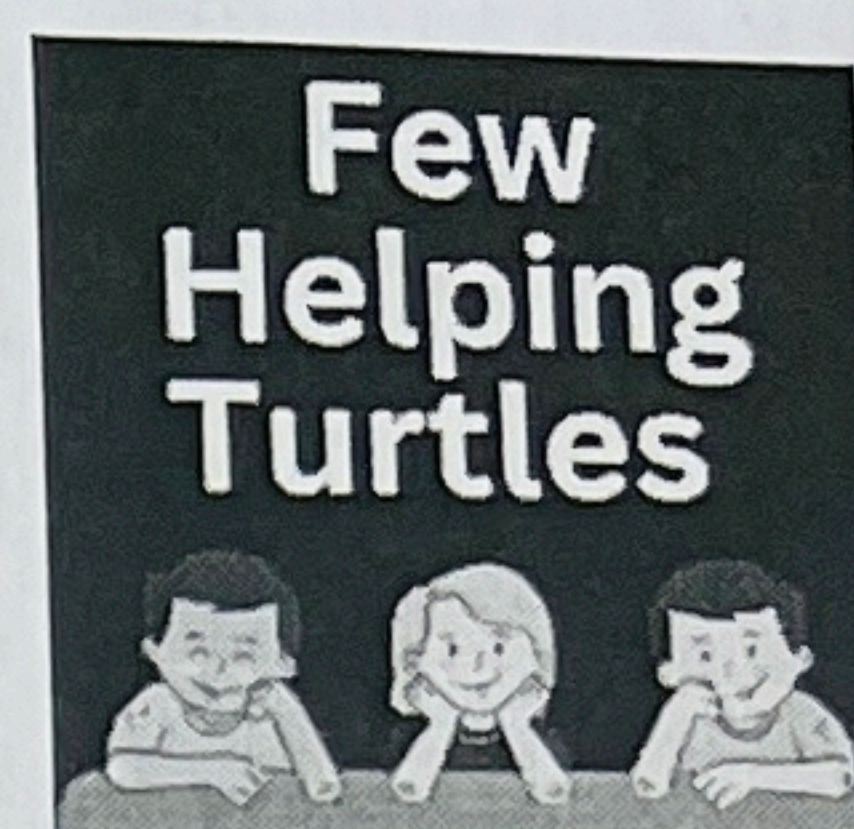




FHT

BSc Nursing

1st Semester Books

Book 1

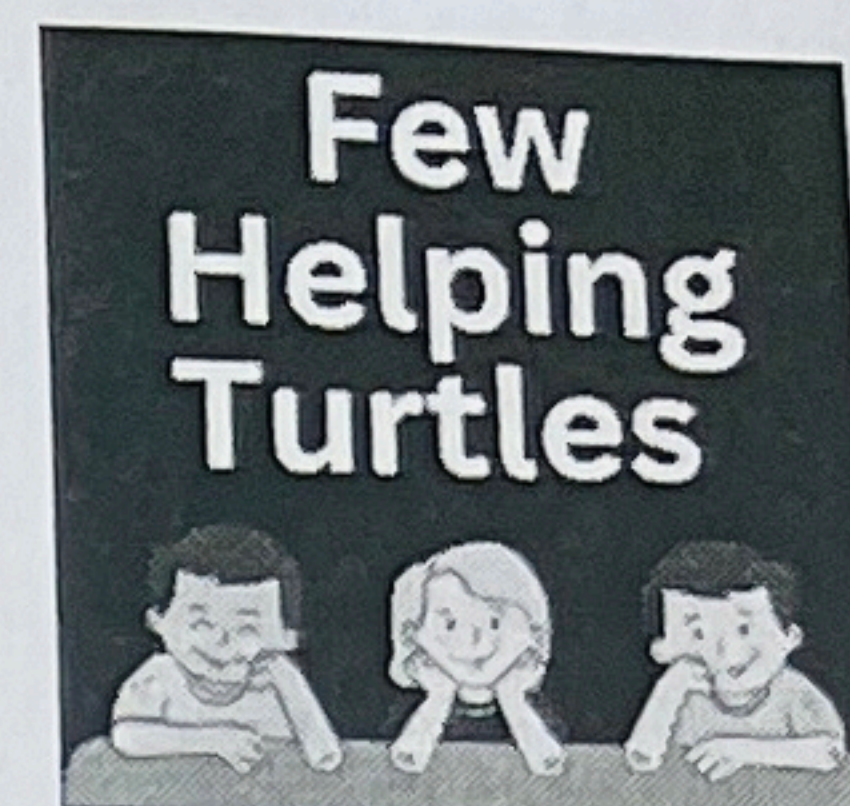
-Subjects Covered-

S No	Subject	Page No
1	Applied Anatomy	3-279
2	Applied Physiology	281-480

Book 2

-Subjects Covered-

S No	Subject	Page No
3	Applied Sociology	3-121
4	Applied Psychology	123-302



Book- 1

-Subjects Covered-

Applied Anatomy

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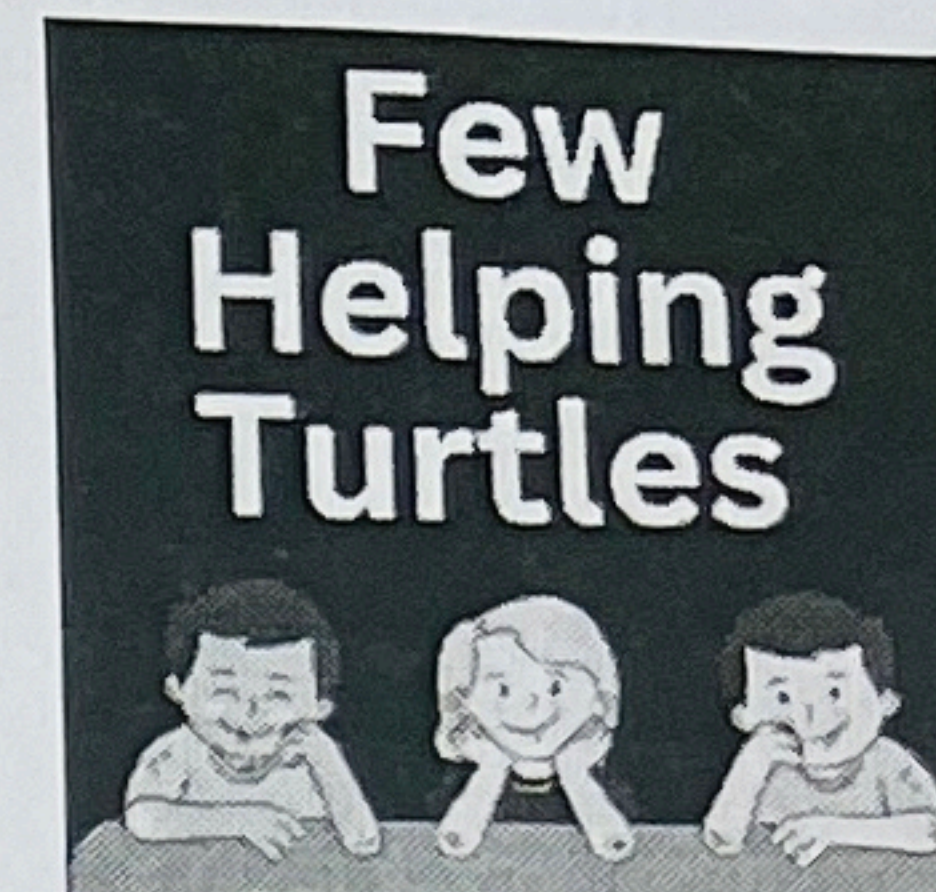
Applied Physiology

- Topics for each subject covered -

S No	Topic
1	All Units Syllabus Wise Notes
2	Most Repeated Questions
3	Last Minute Revision Notes

Applied Anatomy Unit-1

By Few Helping Turtles



Unit-I Syllabus

- Introduction to anatomical terms relative to position: anterior, ventral, posterior, dorsal, superior, inferior, median, lateral, proximal, distal, superficial, deep, prone, supine, palmar and plantar
 - Anatomical planes: axial/transverse/horizontal, sagittal/vertical plane, and coronal/frontal/oblique plane
 - Movements: flexion, extension, abduction, adduction, medial rotation, lateral rotation, inversion, eversion, supination, pronation, plantar flexion, dorsal flexion and circumduction
 - Cell structure and cell division
 - Tissue definition, types, characteristics, classification, and location
 - Membrane and gland classification and structure
 - Major surface and bony landmarks in each body region
 - Types of cartilage: hyaline, fibrocartilage, elastic cartilage
 - Features of skeletal, smooth and cardiac muscle
 - Application and implication in nursing
-

Q. Introduction to anatomical terms

1. Anatomical Position

1.1 Universal Reference Point

The anatomical position serves as the universal reference point for all directional terms in anatomy. In this position:

- The person stands upright
- Face directed forward
- Arms at sides with palms facing forward (thumbs pointing away from the body)
- Feet slightly apart and parallel with toes pointing forward

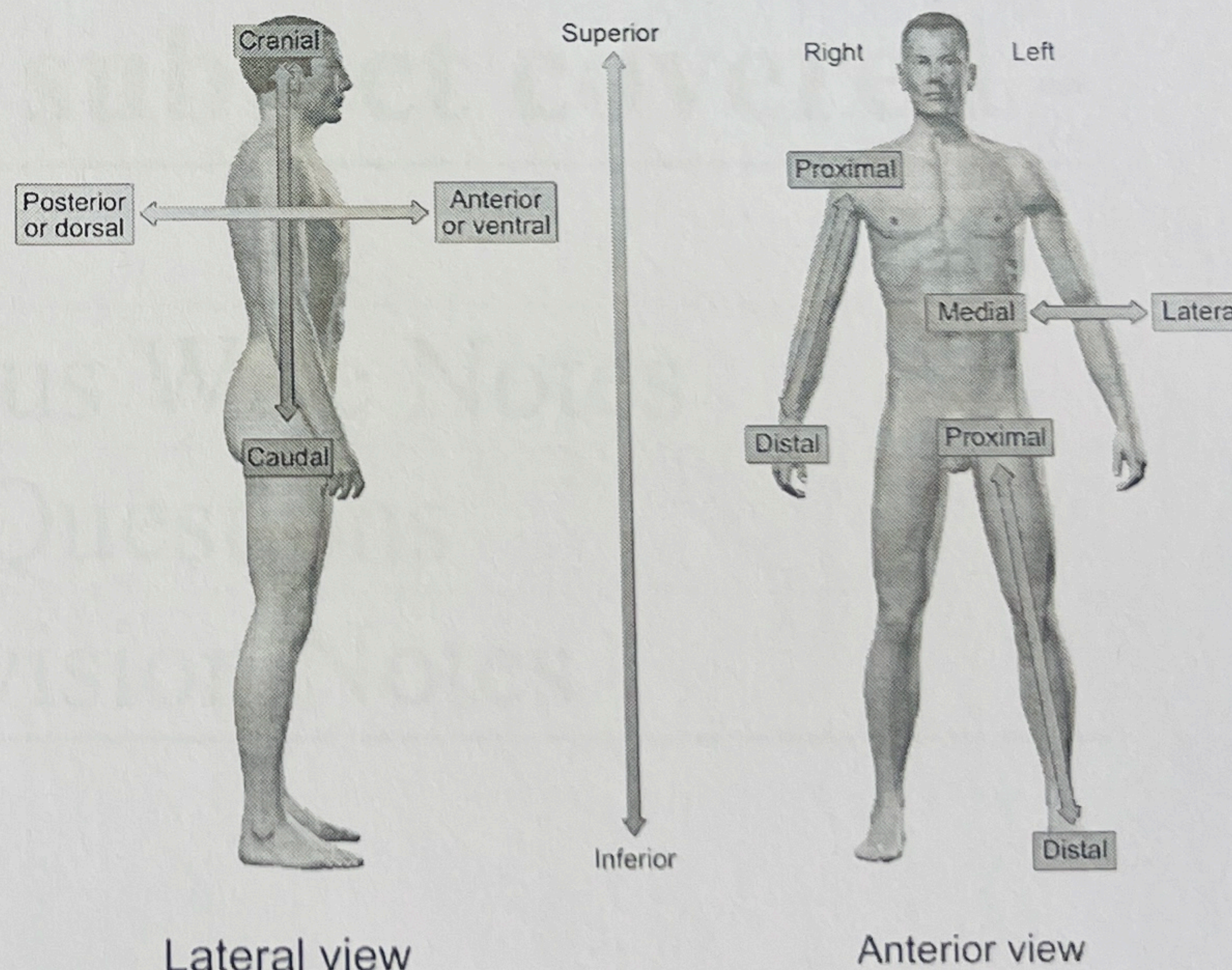
This standardized position eliminates confusion when describing body parts and their relationships to one another. All anatomical terms are based on this reference position, regardless of the actual position of the patient.

2. Directional Terms

2.1 Anterior and Posterior

2.1.1 Anterior (Ventral)

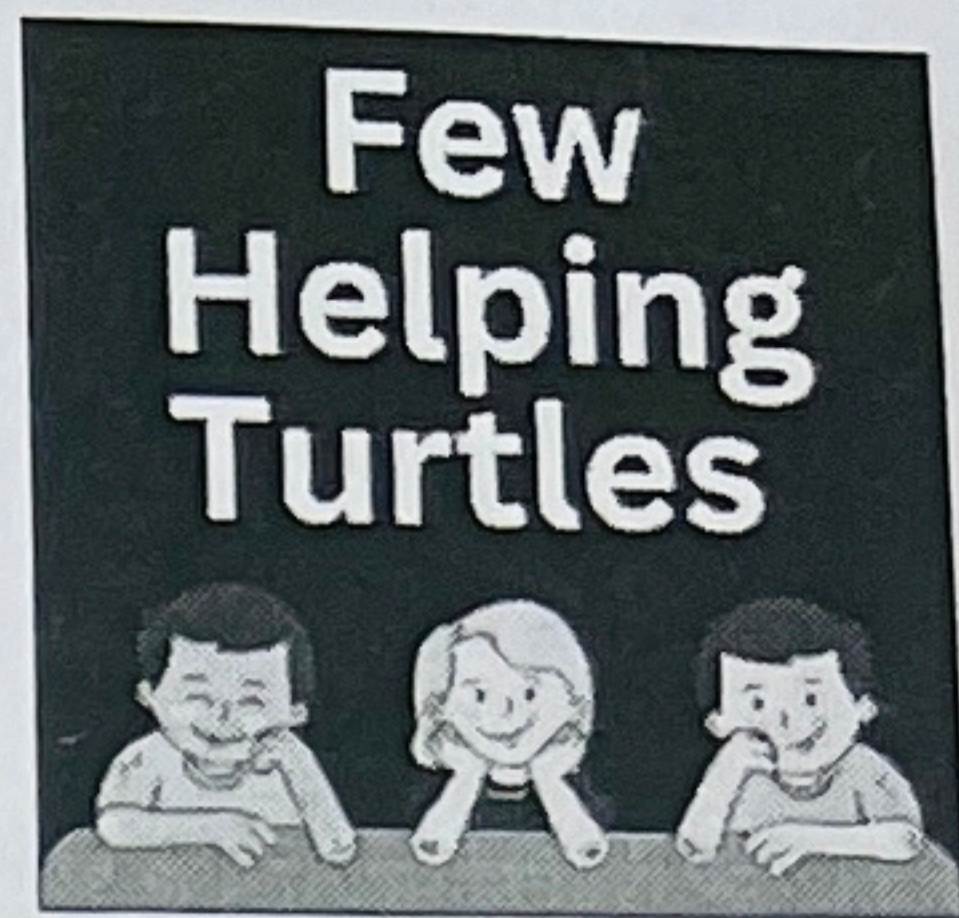
Anterior (Ventral): Refers to the front of the body or a position toward the front surface. For example, the toes are anterior to the foot, and the eyes are on the anterior aspect of the head.



Directional References

Applied Physiology Unit-1

By Few Helping Turtles



Unit-I Syllabus

- Cell physiology including transportation across cell membrane
- Body fluid compartments, distribution of total body fluid, intracellular and extracellular compartments, major electrolytes, and maintenance of homeostasis
- Cell cycle
- Tissue – formation, repair
- Membranes and glands – functions
- Application and implication in nursing

Q. Cell physiology including transportation across cell membrane

A. Core Definition Cell physiology is the study of the functions of a living cell, the fundamental structural and functional unit of all known organisms. It encompasses the chemical and physical processes that occur within a cell to maintain its life. A critical aspect of cell physiology is the transport of substances across the cell membrane, which acts as a selective barrier, regulating the passage of materials into and out of the cell to maintain a distinct internal environment essential for homeostasis.

★ 1.2 The Cell Membrane: Structure and Function

A. The Fluid Mosaic Model The cell membrane is described by the fluid mosaic model, which portrays it as a dynamic and fluid structure. The primary component is a phospholipid bilayer, a double layer of phospholipid molecules. The hydrophilic (water-attracting) phosphate heads face the aqueous environments inside and outside the cell, while the hydrophobic (water-repelling) fatty acid tails face inward, creating a nonpolar core. This structure is flexible, allowing the membrane to change shape.

B. Membrane Components Proteins are embedded within or attached to the phospholipid bilayer, resembling a mosaic. Integral proteins span the entire membrane and often function as channels or transporters. Peripheral proteins are attached to the inner or outer surface and may act as enzymes or in cell signaling. Cholesterol molecules are interspersed within the bilayer, providing stability and regulating membrane fluidity. Carbohydrate chains are attached to proteins (glycoproteins) and lipids (glycolipids) on the outer surface, forming the glycocalyx, which is involved in cell recognition and adhesion.

★ 1.3 Mechanisms of Transport Across Cell Membrane

Transport across the cell membrane can be broadly classified into passive processes, which do not require metabolic energy, and active processes, which do.

A. Passive Transport Passive transport relies on the kinetic energy of particles and involves movement down a concentration or electrochemical gradient (from a region of higher concentration to lower concentration).

- Simple Diffusion: This is the unassisted movement of small, lipid-soluble (hydrophobic) molecules directly through the phospholipid bilayer. Substances like oxygen (O_2), carbon dioxide (CO_2), and fatty acids move via simple diffusion. The rate is governed by the steepness of the concentration gradient, temperature, and the surface area of the membrane.

Book- 2

-Subjects Covered-

Applied Sociology

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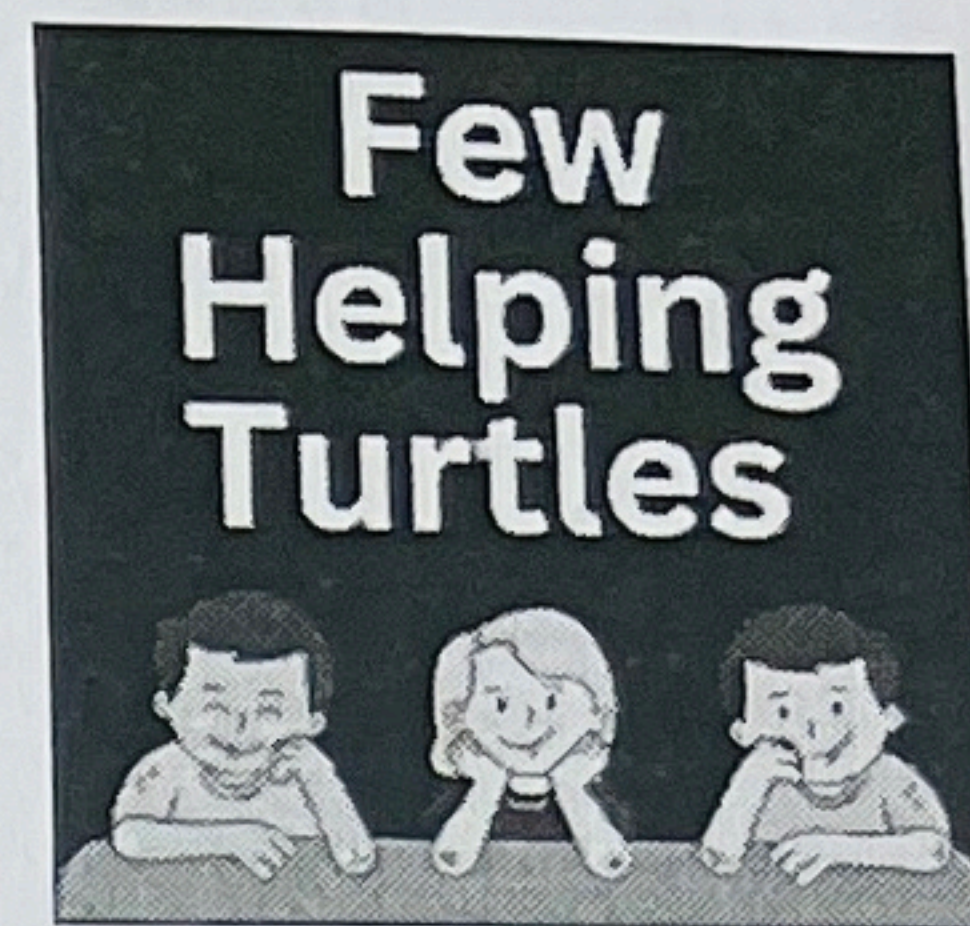
Applied Psychology

- Topics for each subject covered -

S No	Topic
1	All Units Syllabus Wise Notes
2	Most Repeated Questions
3	Last Minute Revision Notes

Applied Psychology Unit-1

By Few Helping Turtles



Unit-I Syllabus

- Meaning of Psychology
- Development of psychology
- Scope, branches and methods of psychology
- Relationship with other subjects
- Significance of psychology in nursing
- Applied psychology to solve everyday issues

Q. Meaning of Psychology

A. Etymological Meaning The term "Psychology" originates from two Greek words: 'Psyche' and 'Logos'. 'Psyche' translates to "soul" or "spirit," and 'Logos' translates to "study" or "discourse." Therefore, etymologically, psychology was initially conceived as the "study of the soul."

B. Evolution of the Definition The focus of psychology has evolved significantly over time. After its initial definition as the study of the soul, it was later redefined by philosophers and early psychologists as the "study of the mind." However, both "soul" and "mind" are abstract concepts that are not directly observable or measurable, which posed problems for developing a scientific field. Consequently, in the early 20th century, psychologists like John B. Watson proposed that psychology should focus only on observable behavior. This led to a definition as the "science of behavior."

C. Modern Definition Today, psychology has integrated these perspectives. The most accepted modern definition is: **Psychology is the scientific study of behavior and mental processes.** This definition encompasses not only what people do (behavior) but also what they think, feel, perceive, and remember (mental processes).

★ 1.2 Key Components of the Definition

A. Scientific Study Psychology is not based on common sense, intuition, or anecdotal evidence. It is a science because it uses the scientific method—a systematic process of gathering objective data through observation, experimentation, and analysis. This approach allows psychologists to describe, explain, predict, and influence behavior and mental processes with a greater degree of accuracy and reliability. For nursing, this scientific foundation is critical as it provides evidence-based principles for patient care.

B. Behavior Behavior includes all overt, observable actions and reactions. This is anything a person does that can be directly seen, measured, or recorded.

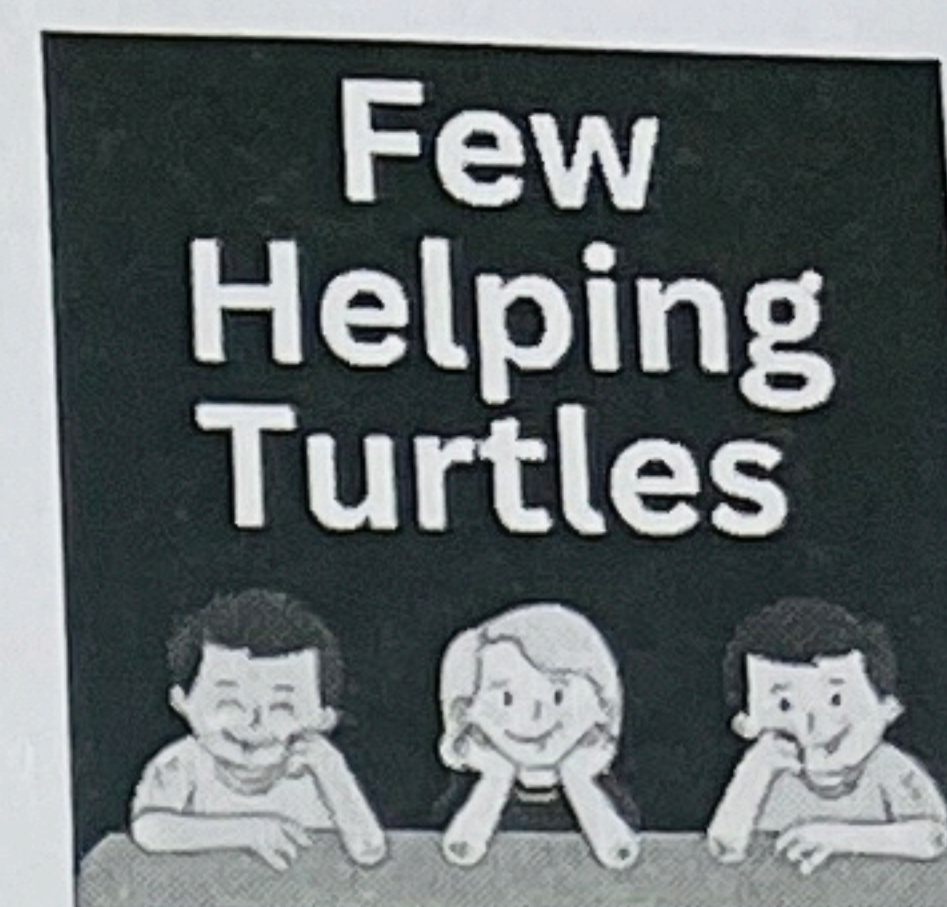
- **Clinical Examples:** A patient wincing in pain, a family member crying, a patient's refusal to eat, a patient's posture (e.g., slumped and withdrawn), adherence to a medication schedule, or a child avoiding eye contact with the nurse. These are all observable behaviors that provide critical data for a nurse's assessment.

C. Mental Processes Mental processes are all covert, internal, and subjective experiences. These are processes that cannot be directly observed by others, such as thoughts, feelings, memories, beliefs, and sensations. We infer these processes from observable behavior (e.g., inferring anxiety from restless fidgeting).

- **Clinical Examples:** A patient's anxiety or fear before surgery (emotion), their understanding or misunderstanding of discharge instructions (cognition), their memory of a previous painful procedure, their belief that a treatment will not work (attitude), or their subjective feeling of pain.

Applied Sociology Unit-1

By Few Helping Turtles



Unit-I Syllabus

- Definition, nature and scope of sociology
- Significance of sociology in nursing

Q. Definition, nature and scope of sociology

A. Core Definition Sociology is the scientific and systematic study of human society, focusing on social relationships, social interaction, and the structures that shape human behavior. It examines how societies are formed, how they function, how they change over time, and how individuals are shaped by the social groups, institutions, and cultures to which they belong.

B. Etymological Origin The term 'Sociology' was coined by French philosopher Auguste Comte in 1838. It is a hybrid term derived from the Latin word *socius*, meaning 'companion' or 'associate', and the Greek word *logos*, meaning 'study' or 'science'. Thus, sociology literally means the science of society.

★ 1.2 The Nature of Sociology

A. Sociology as a Social Science Sociology belongs to the family of social sciences, which also includes anthropology, psychology, economics, and political science. Unlike the natural sciences that study the physical world, sociology studies the complexities of human social behavior and the contexts in which people live.

B. Sociology as a Scientific Discipline Sociology is a scientific discipline because it employs systematic methods of empirical investigation, critical analysis, and theoretical development to build a body of knowledge about society. It is not based on common sense or speculation. Its scientific nature is characterized by the following:

- It is empirical and based on observation and evidence.
- It strives for objectivity and to be value-neutral in its descriptions.
- It is theoretical, developing frameworks to explain social phenomena.
- It is cumulative, building upon previous research and theories.

C. Sociology as a Categorical and Generalizing Science Sociology is primarily a categorical, or descriptive, science, not a normative one; it describes and analyzes society 'as it is' rather than prescribing 'what it ought to be'. Furthermore, it is a generalizing science, meaning it is not concerned with unique individual actions but aims to identify general patterns, principles, or laws that govern human social interaction and group life.

★ 1.3 The Scope of Sociology

A. Major Fields of Study The scope of sociology is extremely broad as it studies all aspects of human social life. Key fields include the study of social institutions (family, religion), social stratification (caste, class), social processes (cooperation, conflict), social control (norms, laws), social change (urbanization, modernization), and social problems (poverty, crime).