



Pakistan School
Kingdom of Bahrain

PAKISTAN SCHOOL, KINGDOM OF BAHRAIN.

Chapter : 1

Introduction to Biology

Objectives:

At the end of this lesson students will be able to:

- ▶ Distinguish the careers in biology.
- ▶ Recognize the contributions made by some of the Muslim scientists.

MEDICINE / SURGERY :

- ❖ **Diagnosis and treatment of diseases in human.**
- ❖ **Surgery involves repairing, replacing and/or removing.**

Example:

Repair : Bone realignment

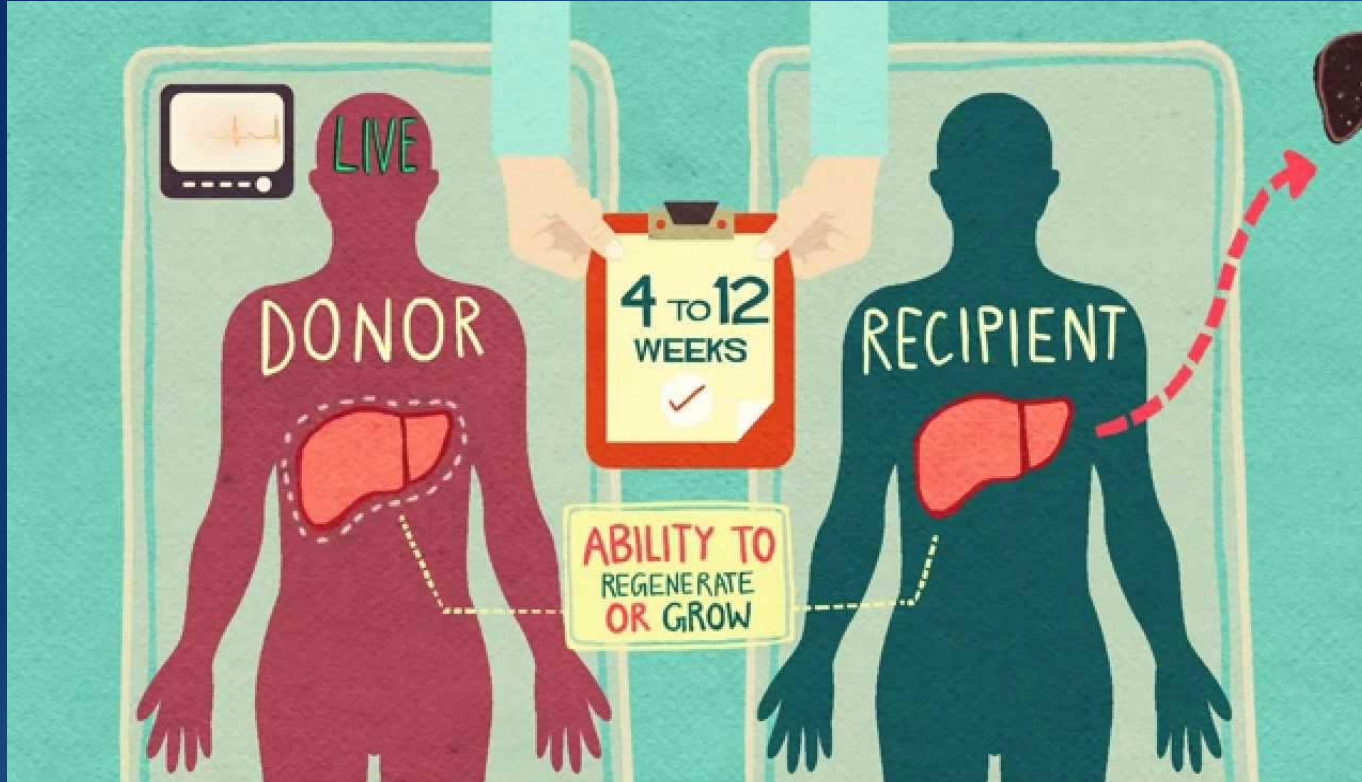
Replace : Liver transplantation

Removal : Renal surgery for removal of stones

- ❖ **Course for both → MBBS with further specializations.**

MBBS

'Bachelor of Medicine and Bachelor of Surgery'



Salmonella Diagnosis



physical exam



symptom
analysis



stool tests



blood tests



FISHERIES :

- ❖ Professional study of fish production.
- ❖ Fisheries Departments → enhancing the quality and quantity of fish production.
- ❖ Course → Bachelor / Masters in zoology and fisheries.



AGRICULTURE:

- ❖ Deals with sources of food → food crops and animals
- ❖ Agriculturist → for the betterment of crops + animals
- ❖ University Course



ANIMAL HUSBANDRY :

- ❖ **Branch of agriculture deals with care and breeding of domestic animals (livestock).**
- ❖ **Professional Courses after FSc.**



HORTICULTURE :

- ❖ **Art of gardening**
- ❖ **Betterment of existing varieties + Production of new varieties of ornamental plants and fruit plants.**
- ❖ **Professional Courses after FSc.**





FARMING :

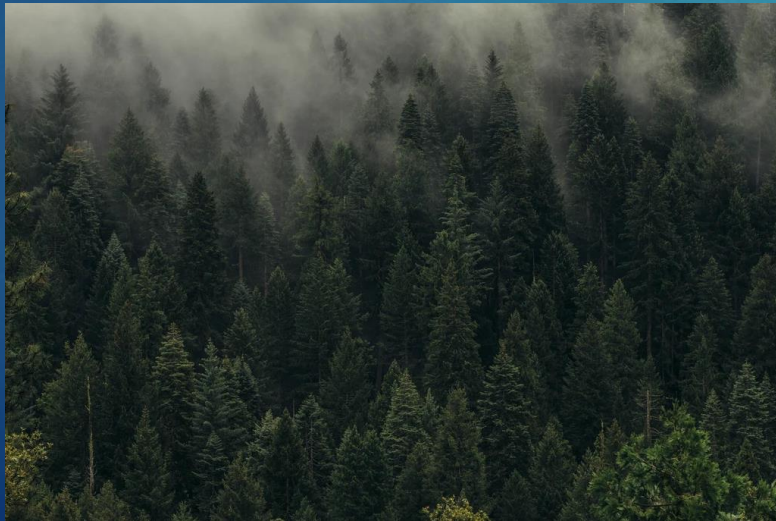
- ❖ Deals with → development and maintenance of different types of farms.
- ❖ Animal breeding technologies used for better production of animals which are better milk and protein source.
- ❖ Poultry farms produce → chicken + eggs.
- ❖ Fruit farms have → different fruit yielding plants.
- ❖ Profession only after doing professional course in agriculture, animal husbandry or fisheries.



FORESTRY :

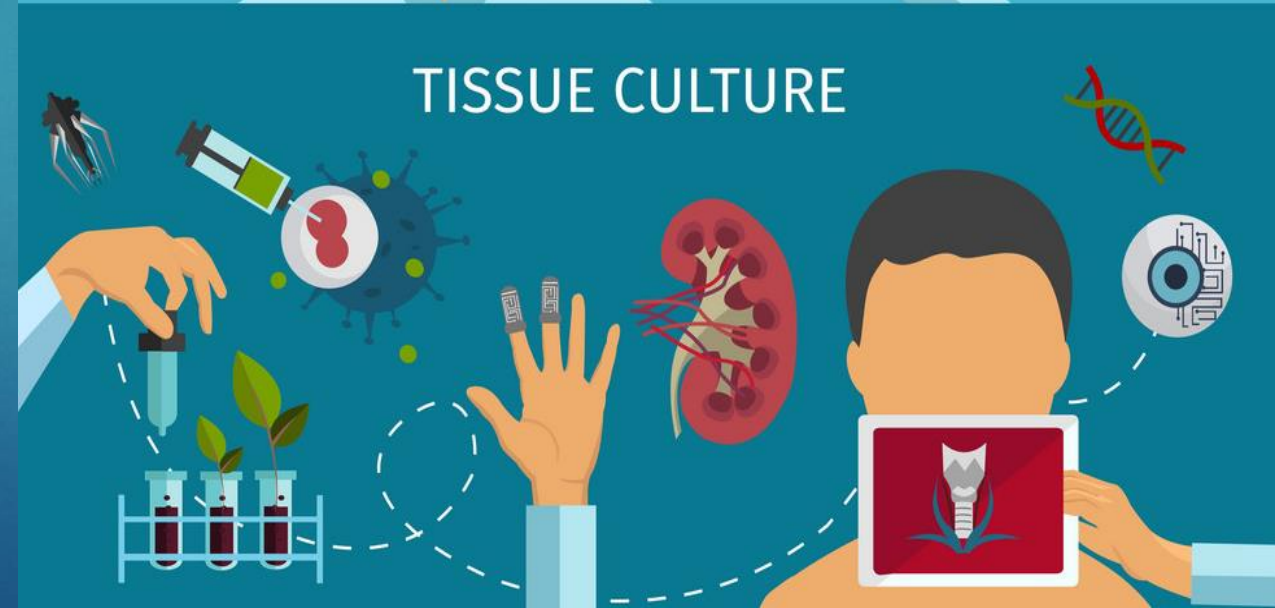


- ❖ **Look after natural forests**
- ❖ **Advise government to plant and grow artificial forests**
- ❖ **Profession after FSC. or BSc.**



BIOTECHNOLOGY :

- ❖ **Study/work → production of useful products through microorganisms**
- ❖ **University courses after FSc. Or BSc.**



MUSLIM SCIENTISTS:

MUSLIM SCIENTISTS AND THEIR INVENTIONS



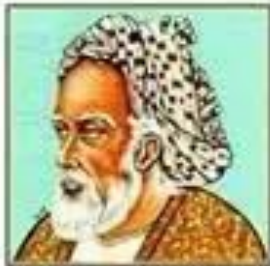
MUHAMMAD IBN
MUSA AL-KHWARIZMI



IBN BATTUTA



IBN RUSHD



OMAR KHAYYAM



THABIT IBN QURRA



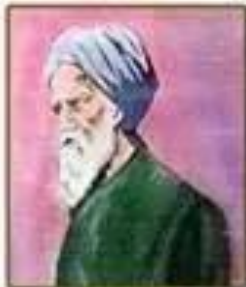
ABU BAKR AL-RAZI



JABIR IBN HAIYAN



IBN ISHAQ AL-KINDI



IBN AL-HAYTHAM



IBN ZUHR



IBN KHALDUN



IBN AL-BAITAR



ABU NASR AL-FARABI



AL-BATTANI



IBN SINA

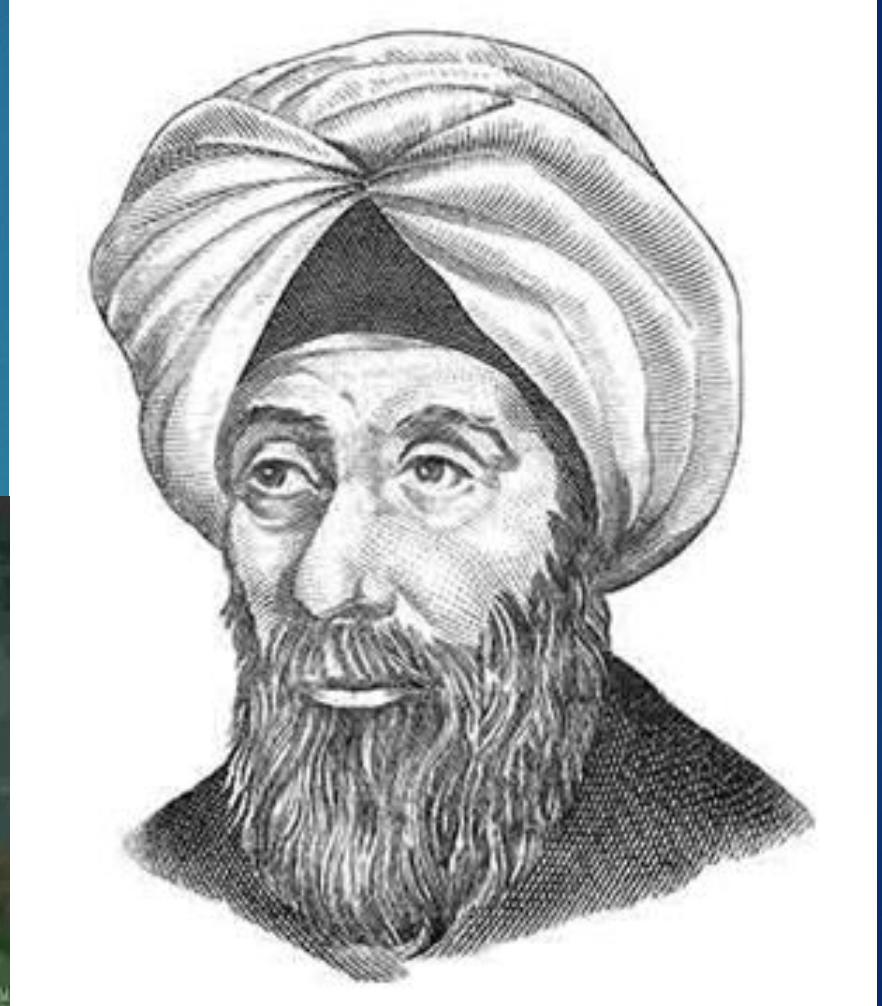
JABIR BIN HAYAN :

- ❖ Born in Iran and practiced medicine in Iraq.
- ❖ Introduced EXPERIMENTAL INVESTIGATION in CHEMISTRY.
- ❖ Wrote MANY BOOKS on PLANTS and ANIMALS.
- ❖ FOMOUS BOOKS :
- ❖ 'Al-Nabatat' .
- ❖ 'Al-Haywan' .



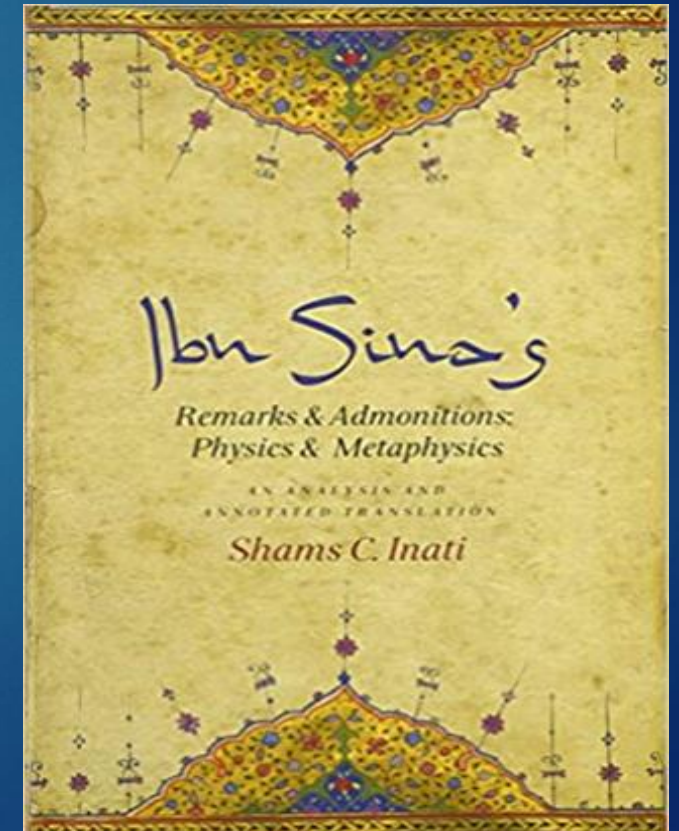
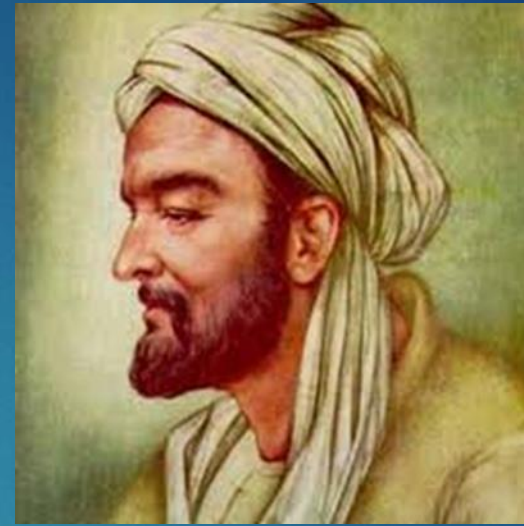
ABDUL MALIK ASMAI :

- ❖ First muslim scientist to study animals in detail.
- ❖ FAMOUS WORKS :
 - ❖ “Al-Abil (camel)” ,
 - ❖ “Al-Khail (horse)” ,
 - ❖ “Al-Wahoosh (animal)” ,
 - ❖ “Kalq Al- Ansan”.

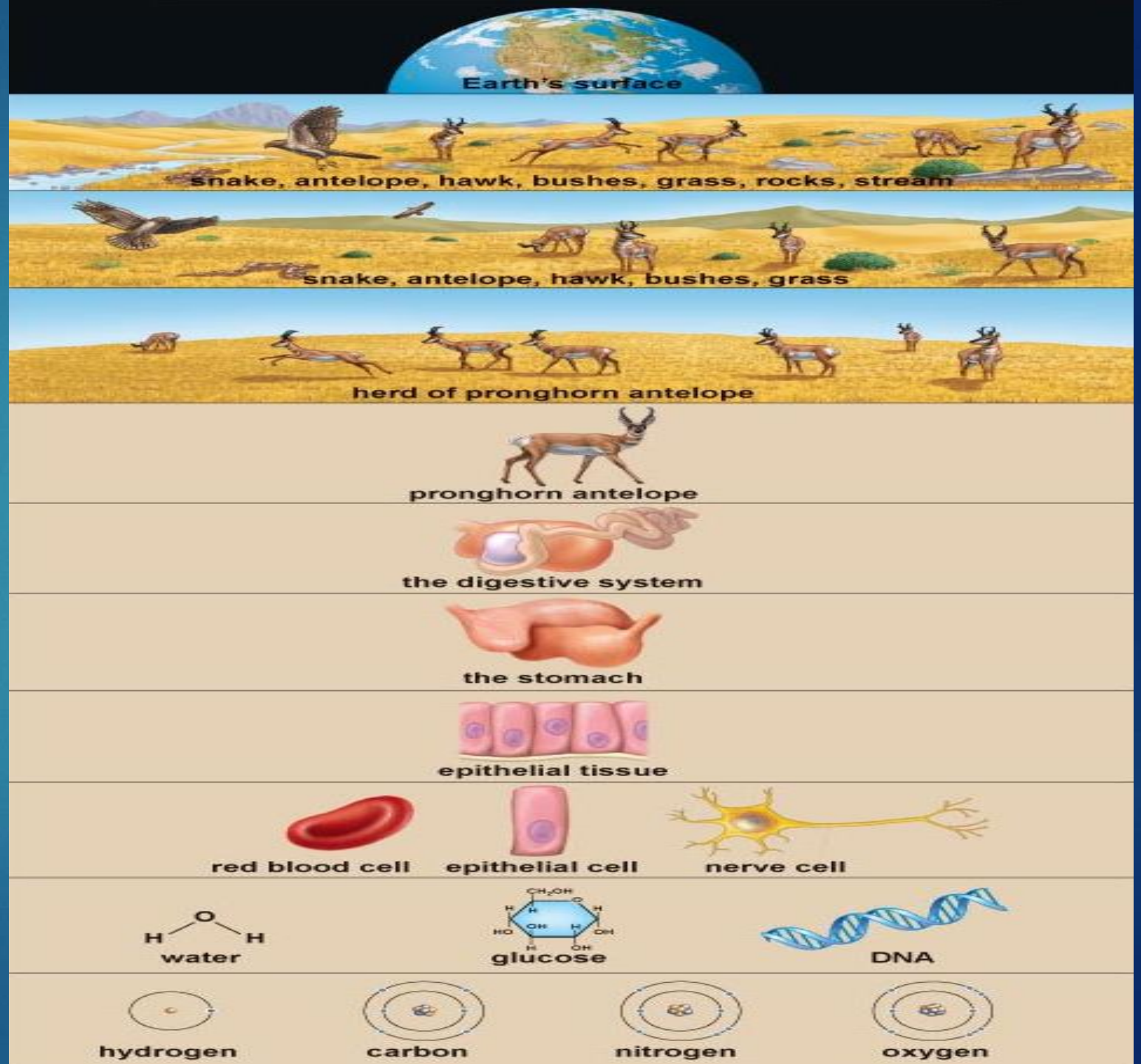


BU ALI SINA:

- ❖ He is the founder of medicine.
- ❖ Known as Avicenna in the west.
- ❖ He was a physician, philosopher, astronomer, and poet.
- ❖ One of his books “Al-Qanun-Fi-Al-Tib”.
- ❖ Also known as “Canon of Medicine” in the west.



Levels of Biological Organization



Plenary :

1. The field that deals with gardening is _____
2. _____ is the latest profession of Biology.
3. Name two professions that might help in overcoming the shortage of food in the world.
4. Those who are fighting as front line soldiers against COVID-19 are from the field of _____ / _____

**“If learning the truth is the scientist’s goal...
then he must make himself the enemy
of all that he reads.”**

Ibn Al-Haytham

Al-Hassan Ibn Al-Haytham (Latinised as Alhazen),
born 965 Basra, died 1040 Cairo.