

**Science College**

**Biology Department**

**Lecture one \ Zoology**

**الأستاذ الدكتور خيرى عبدالله داود**

**Zoology : Zoo = animal \ Logos = Science**

**Biology : Bios = life \ Logos = Science**

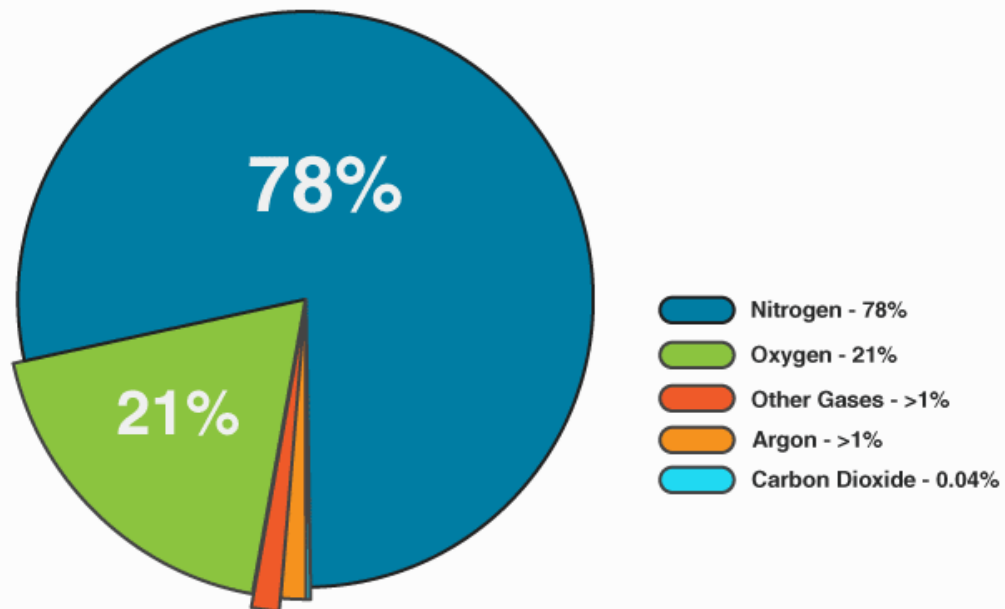
**Life : All living processes done by living organisms like movement , respiration , ingestion of food ,  
.....**

**Basic elements of life ( CHNOPS) \ Carbon , Hydrogen , Nitrogen , Oxygen , Phosphor and Sulfur , 98% of living substances are compose these materials such as Proteins , carbohydrates , Lipids .**

**Gases compose air 78 % Nitrogen , 21% Oxygen , 1 % Argon \ 0.04 % CO<sub>2</sub> , 0.5 % water vapour , Hilum**

**Human can live 3 minutes without air , 3 days without water , three weeks without food .**

## **COMPOSITION OF INHALED AIR**



**Air , water and Food , fundamental requirements for all living activities .**

# **Animal Kingdom    Divided to :**

## **Invertebrates Phyla**

**9 Phyla :**

**1 – Protozoa phylum**

**2 – Arthropoda Phylum**

**3 – Cnidaria phylum**

**4 - Mollusca Phylum**

**5 – Echinodermata**

**6 – Annelida**

**7 – Sponge**

**8 – Platyhelminthes**

**9 – Nematelminthes**

## **Vertebrates Phyla**

**One Phylum called Chordata**

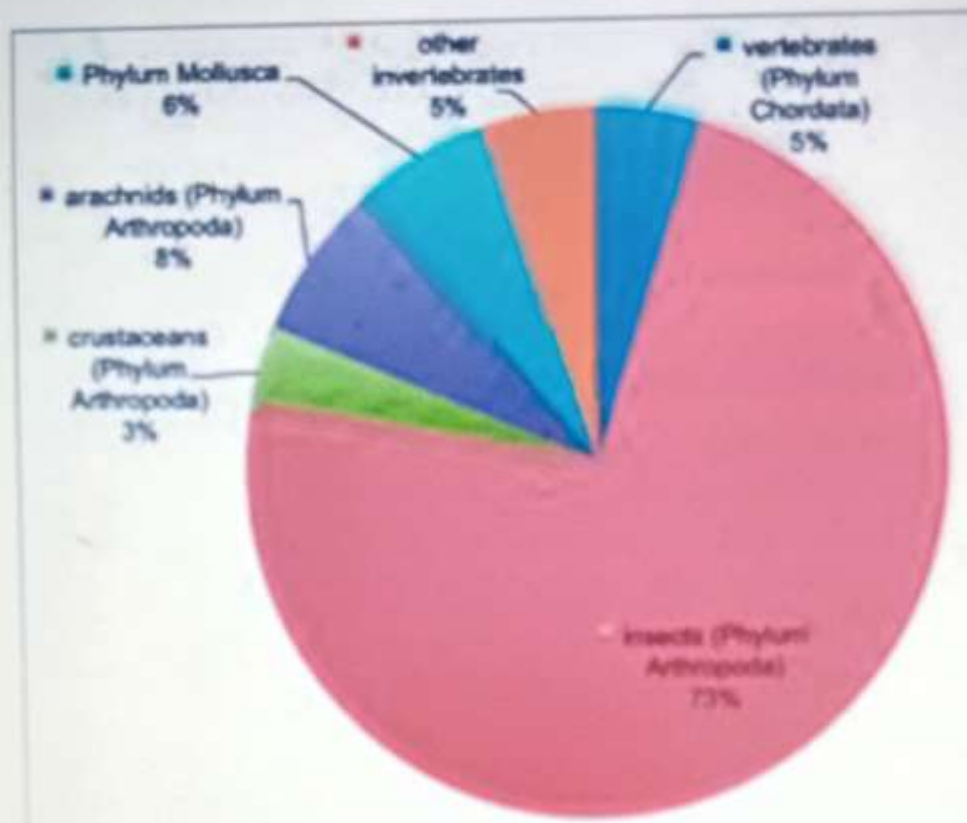
**This Phylum have Five Classes**

**1- Mammals    2 – Fishes**

**3 – Birds    4 – Reptiles**

**5 - Amphibians**

## Department of biology



**Arthropoda Phylum compose :**

**Insects = 72%    Arachnida = 8%    Crustacea = 2% ( 82 %)**

**Mollusca phylum = 6 %**

**Invertebrates = 95 %**

**Vertebrates = 5 %**

## **Organs of Human and Animals**

<b>Brain</b>	<b>Liver</b>	<b>Kidney</b>	<b>Stomach</b>
<b>Spleen</b>	<b>Uterus</b>	<b>Ovary</b>	
<b>Oviduct</b>	<b>Lymph node</b>	<b>Tonsils</b>	
<b>Testis</b>	<b>Large Intestine</b>		
<b>Small Intestine</b>	<b>Lunges</b>	<b>Trachea</b>	
<b>Heart</b>	<b>Blood Vessels</b>	<b>Artery</b>	
<b>Vein</b>	<b>Capillaries</b>	<b>Skin</b>	
<b>Head</b>	<b>Chest</b>	<b>Abdomen</b>	
<b>Upper Limbs</b>	<b>Lower Limbs</b>		

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## **Example questions \ Chose Correct Answer**

**1 - Air contain the following gases Except one ?**

**A – Nitrogen B – Oxygen C- CO2 D – Hilum E- Flore**

**2 – One of the following not invertebrates phylum ?**

**1 – Protozoa 2- Mollusca 3 – Reptiles 4 – Sponge**

**5 - Echinodermata**

