Ch30.1 Respiratory and Circulatory Functions

- #Biology_3 #Note #School
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- What is the Respiratory System?: #card
  - A: It is the breathing system of the body.
  - Q: What are the 2 main tasks of this system?: #card
    - Bringing in oxygen
    - Expel carbon-dioxide and water
  - Q: What is the pathway of air in this system?: #card
    - The air goes through multiple organs/parts of this system: **Needs Correction**
    - Nose/Mouth
    - Nasal Cavity
    - Pharnyx
    - Epiglottis
    - Larnyx
    - Trachea
    - Bronchus
    - Bronchioles
    - Alveoli
  - Q: What are the functions of the main parts of the pathway of this system?: #card
    - Each part of this system has a function some of the most important ones being:
    - Nasal Cavity:
      - Contains mucus to warm and moisten the air.
      - Contains tiny hair that filters out the dust (cilia).
    - Pharnyx:
      - Regulates air flow (has a door where when you swallow it closes so that it prevents food or saliva from entering airways)
    - Larnyx:
      - Contains the vocal cords.
    - Alveoli:
      - They are also known as air sacks
      - Where the Lungs and blood exchange oxygen and carbon dioxide
  - Q: What happens to the Diaphragm muscle and rib cage when breathing in and breathing out?: #card
    - When you breathe in they both relax, the Diaphragm muscle goes up and the rib cage contracts.
    - When you breathe out muscles contract, the Diaphragm muscle goes down, and the ribcage expands.

- What is the Circulatory System?: #card
  - A: The circulatory system is the system responsible for moving blood and materials throughout the body
  - Q: What are the 4 main tasks of this system?: #card
    - Separate Oxygen rich and Oxygen poor blood from each other.
    - Warm the body and maintain its temperature.
    - Transport Materials.
    - Collect waste.
  - Q: What are the 5 components of this system?: #card
    - Heart
    - Blood
    - Veins
    - Capillaries
    - Arteries
    - Q: Explain the difference between each blood vessel: #card
      - Veins:
        - Veins take the blood from the body parts and to the heart.
        - They take oxygen poor blood to the heart.
        - They have the thicker walls than Capillaries.
        - Low pressure
        - Wide diameter
        - It is distinguished by being the only one that has valves (valves are holes that prevent the blood from going a certain direction)
      - Arteries:
        - Arteries carry blood from the heart to the body parts
        - They take oxygen rich blood from the heart.
        - Its walls are the thickest.
        - Highest pressure
        - Narrow diameter
        - No valves
      - Capillaries:
        - Exchange blood and materials with cells.
        - connect veins and capillaries together.
        - Extremely thin walls (one cell thick)
        - Low pressure
        - Extremely narrow diameter (one cell wide)
        - No valves
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- Q: What are the 2 circulations of this system and what is the function of each?: #card
    - Systemic Circulation:
        - The circulation of blood between the heart and the body parts
        - Takes oxygen rich blood from the heart to the body parts using an artery
        - Capillaries exchange blood, oxygen, materials, and waste with the cells
        - Takes oxygen poor blood from the body parts to the heart using a vein
    - Pulmonary Circulation:
        - The circulation between the heart and the lungs
        - Takes oxygen poor blood from the heart to the lungs using an Artery
        - Capillaries exchange blood, oxygen, and carbon dioxide with the Alveolies.
        - Takes oxygen rich blood from the lungs to the hearts using a vein.
    - Q What are the components of each system?: #card
        - Systemic:
            - Aortic Artery /Aorta (Artery)
            - Vena Cava (Vein)
        - Pulmonary:
            - Pulmonary vein
            - Pulmonary artery
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