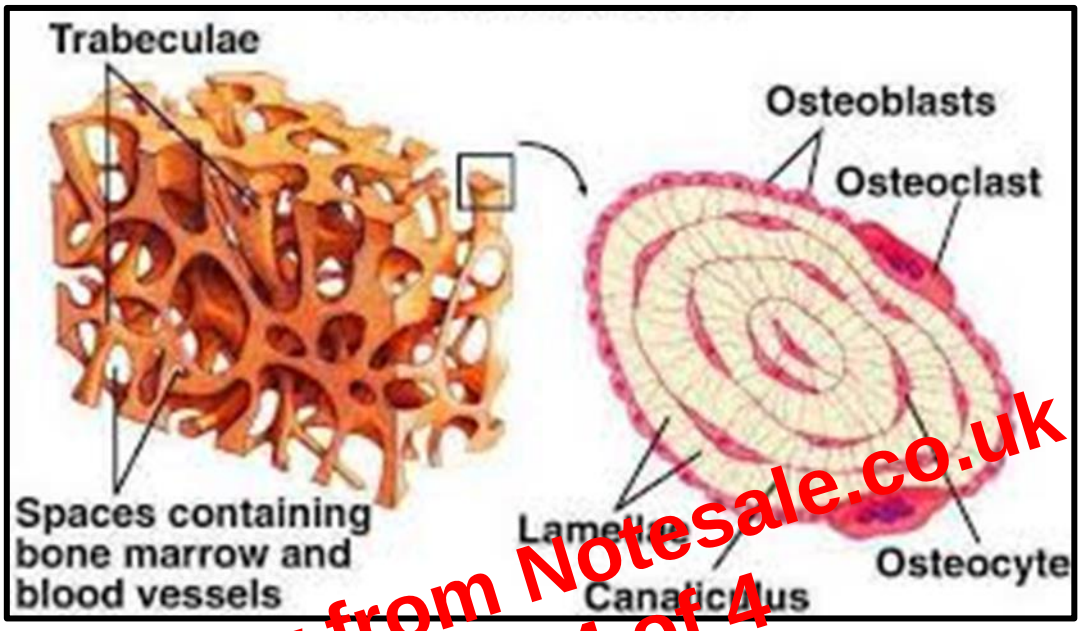
- **Spongy** (see below)
    - Spongy bone contains **no central canal or osteons**
    - The **lamellae are arranged as rods**
    - The **spaces contain red bone marrow**
    - It is **located at the heads of long bones** and **within the interior of most irregular bones**
        - Such as the **pelvis** and **skull**
    - Its functions:
        - **High metabolic activity** (e.g. calcium exchange)
            - **High surface area**
        - **Produces red blood cells** from red bone marrow
        - **Contains stem cells** in the bone marrow



- Bone tissue in general has some specific functions:
    - **Support**
        - It **maintains the body shape**
        - It **withstands gravity**
    - **Movement**
        - It **acts as levers to allow movement**
    - **Protection**
        - **Organs** such as the brain and heart **are encased** by the skull and rib cage
    - The **storage of minerals and growth factors**
        - This allows for **bone remodelling**
        - Allows for **regulation of calcium homeostasis**
        - Allows for the **production of osteoblasts and osteocytes**
        - Allows production of **parathyrin and calcitonin**
            - These **allow for bone remodelling by the uptake and remodelling of bone**
    - It can **store fat** for use as an **energy source**
    - It is the site of **blood cell** and **hormone production**
        - Blood synthesis = **haematopoiesis**
        - Produces **osteocalcin**
            - This **regulates insulin secretion**
            - **Glucose homeostasis**
            - **Regulates energy expenditure**