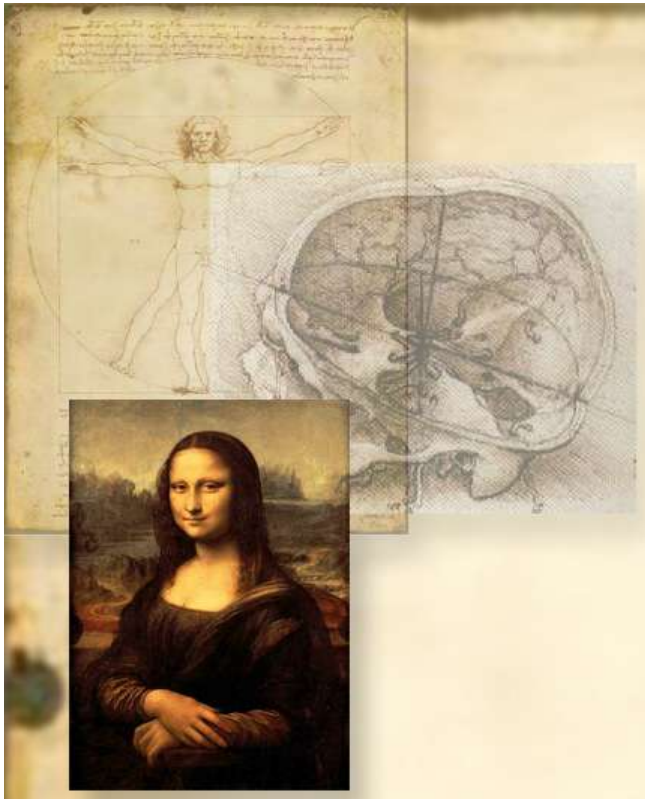
Skeletal System

Chapter 3

Terms



Ankylosis
Arthralgia
Arthrocentesis
Arthrography
Arthroplasty
Arthroscopy
Brachial
Chondrectomy
Chondromalacia
Hematopoiesis
Intercostal
Osteoarthritis
Osteoblast
Osteoclast
Osteoma
Osteomalacia
Osteomyelitis
Osteoporosis
Spondylosis
Ambidextrous

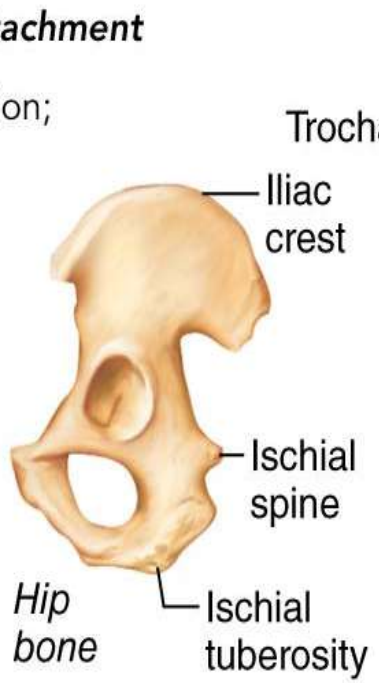
Abbreviations:

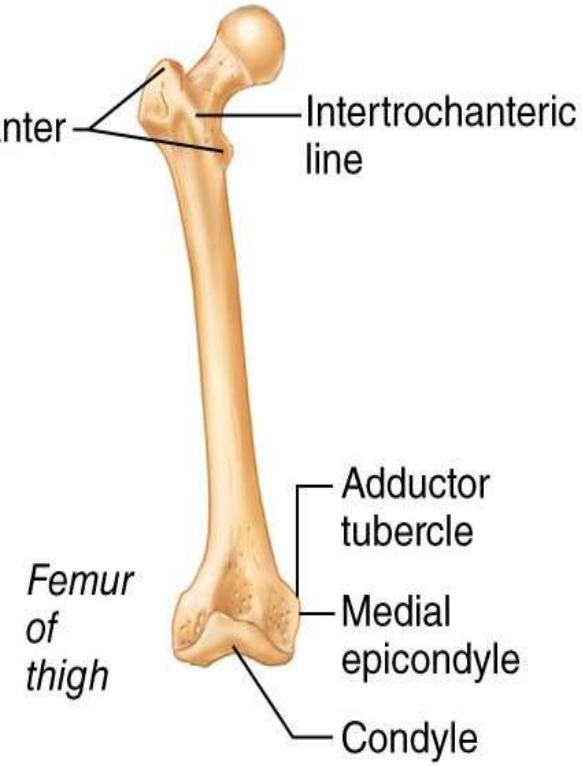
amb
CXR
Fx
Tx

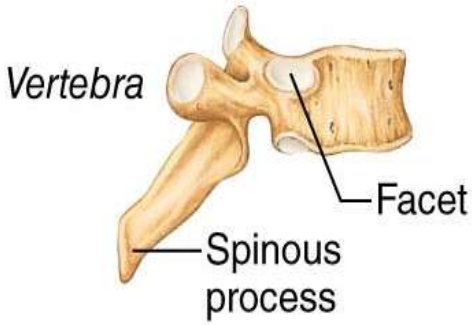
** define all terms and abbreviations in your notebook

Table 5.1 Bone Markings

Name of bone marking	Description	Illustration
Projections that are sites of muscle and ligament attachment		
Tuberosity	Large, rounded projection; may be roughened	
Crest	Narrow ridge of bone; usually prominent	
Trochanter (tro-kan'ter)	Very large, blunt, irregularly shaped process (the only examples are on the femur)	
Line	Narrow ridge of bone; less prominent than a crest	
Tubercle (too'ber-kl)	Small, rounded projection or process	
Epicondyle	Raised area on or above a condyle	
Spine	Sharp, slender, often pointed projection	
Process	Any bony prominence	







Functions of Skeletal System

** write each function on one bone. Cut them out and glue them into your notebook. Mark the bold words.

- **Supports** and gives the shape to the body
- **Protects** internal organs
- Makes **movement** possible
- **Storage** - Calcium is stored in bones and used for nerve and bone function
- **Produces** blood cells

Osteoblast
Osteoclast
Osteoma
Osteomalacia
Osteomyelitis
Osteoporosis

* Naming the bones sheet – put the top third only in your notebook and answer

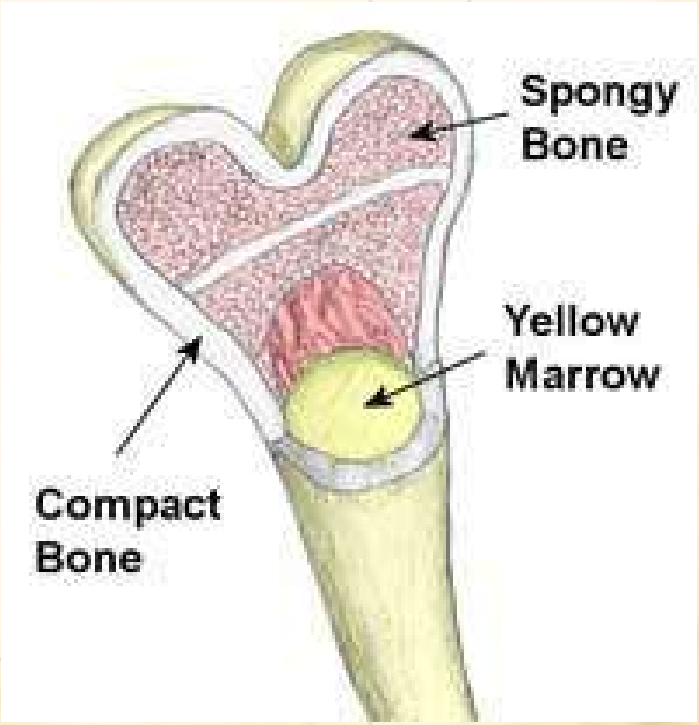
Bones

- Skeleton is made of organs called bones
- Adult has 206 bones, infant has more with 270
- Related Word Roots
  - oss/e, oss/i
  - oste/o, ost/o
- Longest bone: femur
- Smallest Bones are in the: ear

Anatomy of Bone

*Bone Anatomy page- whole page, like a foldable Write definitions inside flaps

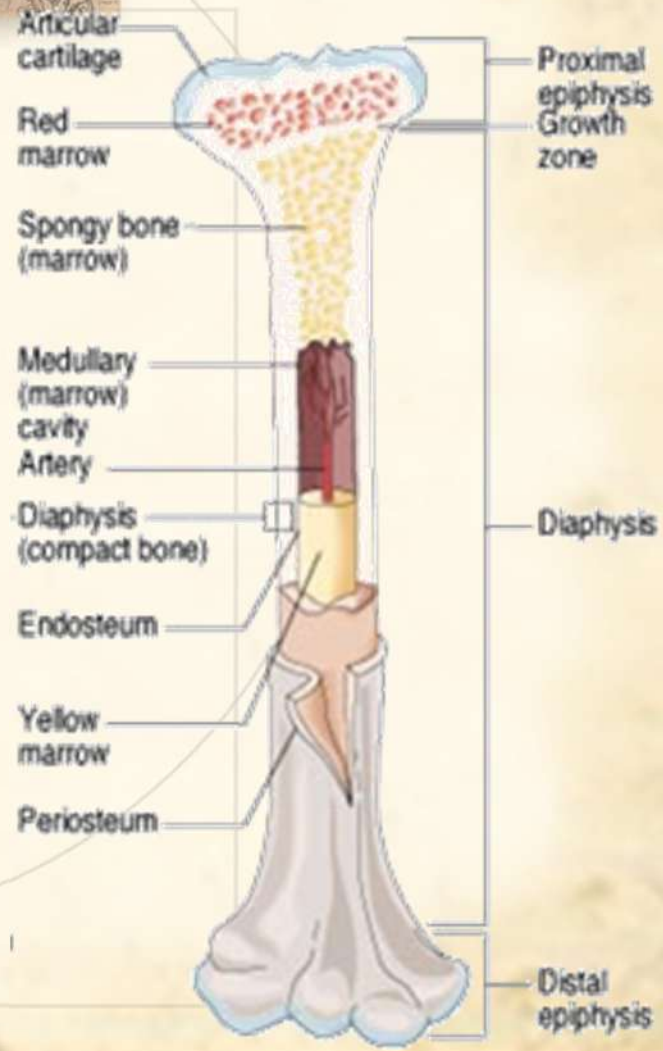
- **Periosteum** (peri-, oste, -um) – outer most covering
- **Compact Bone** – strong, hard outer layer
- **Spongy Bone** – Lighter; contains red bone marrow
- **Marrow** – see next slide



Bone Marrow

- Primary Functions
  - **Red** bone marrow manufactures some blood cells.
  - **Yellow** bone marrow stores fat.
- Related Combining Form
  - myel/o (also means spinal cord but, pay attention to your context)

hematopoietic



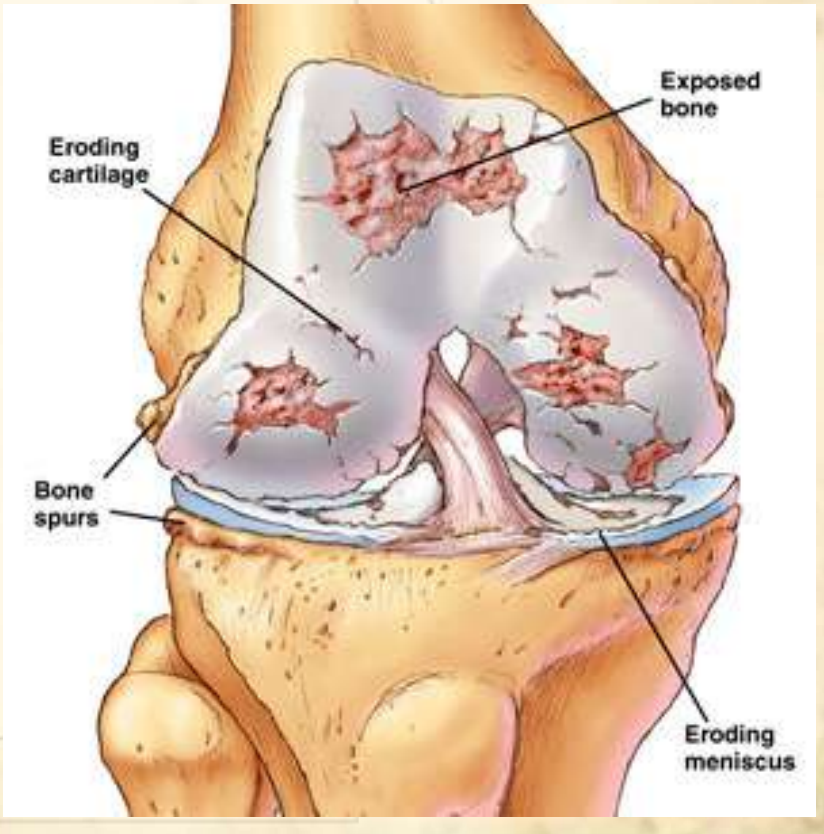
*write under last foldable (last slide)

Cartilage

Chondrectomy
Chondromalacia

- Related Combining Form
  - chondr/o
- Primary Functions
  - Creates a smooth surface for motion within the joints.
  - **Protects** the ends of the bones.

***Articular** cartilage is located on the surfaces of bones that form joints



Joints (articulations)

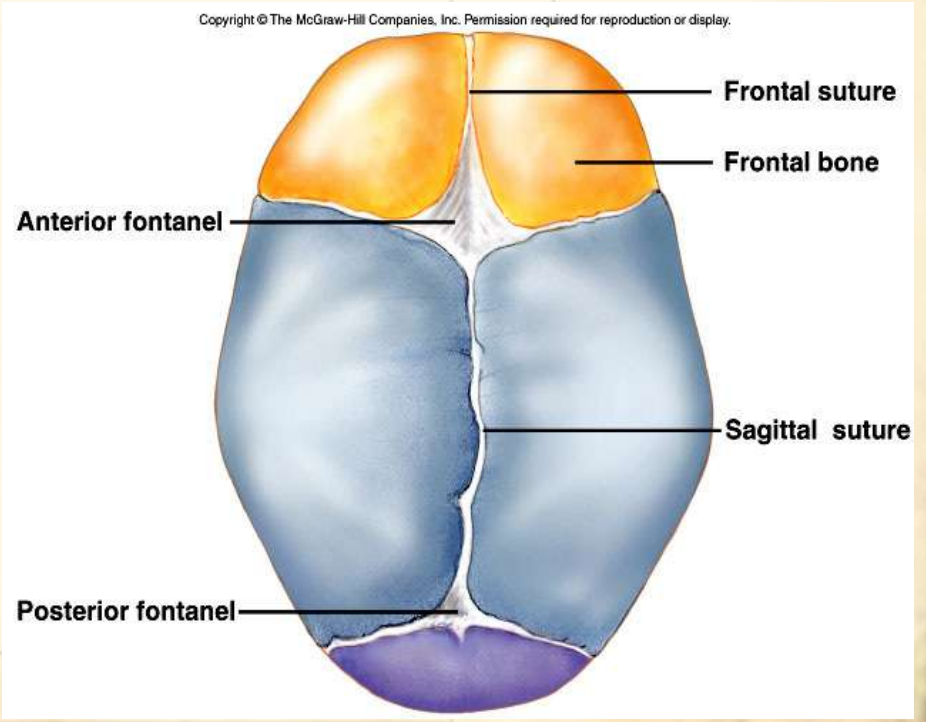
Arthralgia
Arthrocentesis
Arthritis
Arthrography
Arthroplasty
Osteoarthritis

Types of joints page – this slide goes on the inside of the first flap

- Related Combining Form
  - arthr/o
- Primary Function
  - Work with the muscles to make a variety of motions possible.
- Types of Joints
  - Sutures
  - Symphysis
  - Synovial

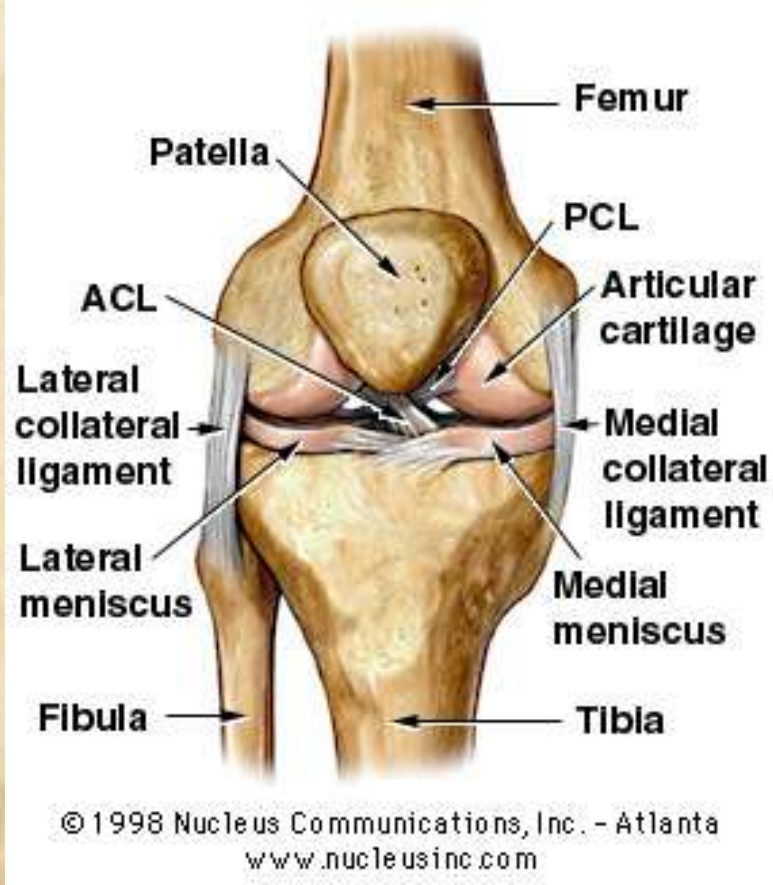
Sutures

- A **suture** is a joint where bones join together and form a joint that does not move.
- A **fontanel** is where the sutures between the frontal and parietal bones have not yet closed



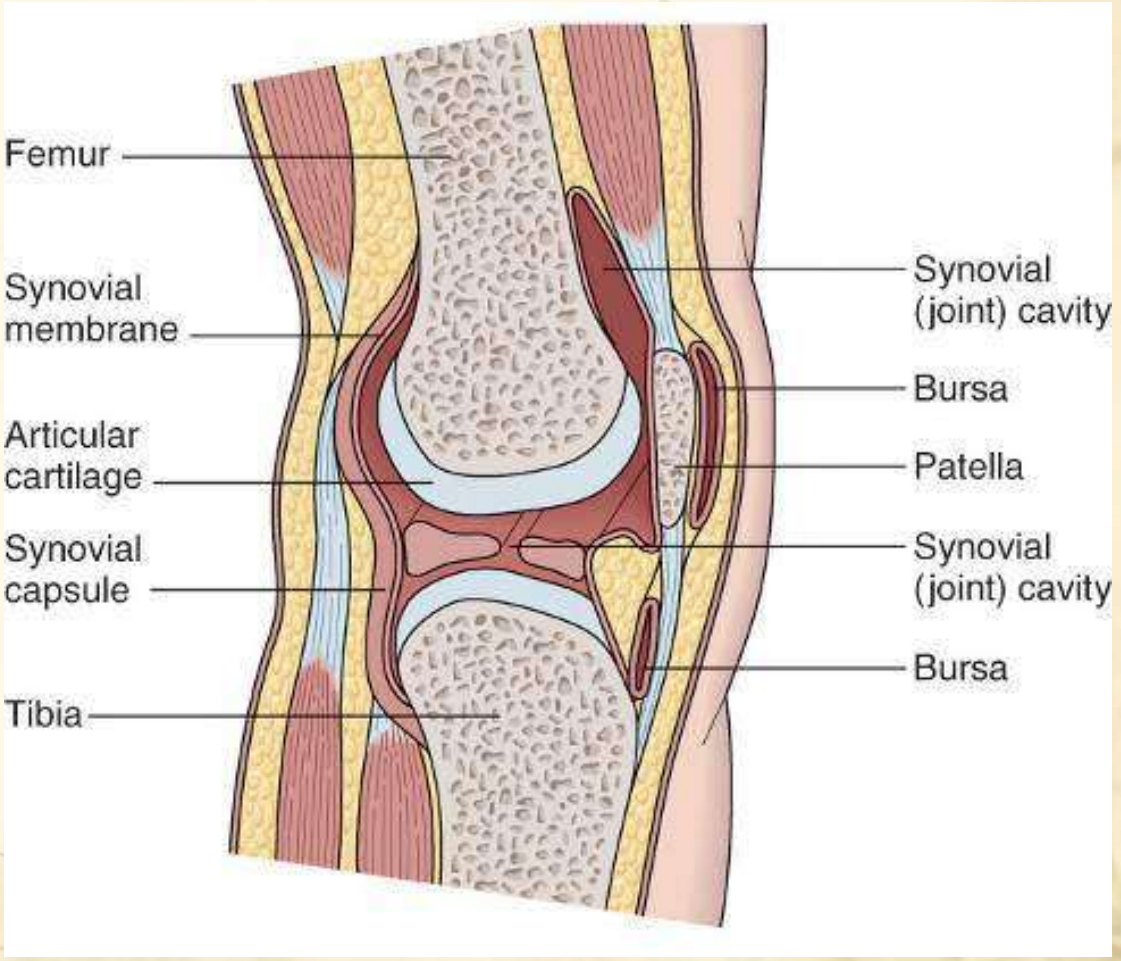
Types of joints page – this slide goes on the inside of the 2nd and 3rd flap

Structures of Synovial Joints



- **Ligaments**
  - Connect one bone to another.
- **Synovial Membrane**
  - Forms the lining of synovial joints.
  - Secretes synovial fluid
- **Synovial Fluid**
  - Lubricant that makes smooth joint movements possible.
- **Bursa**
  - Cushions areas of joints that are subject to friction during movement.

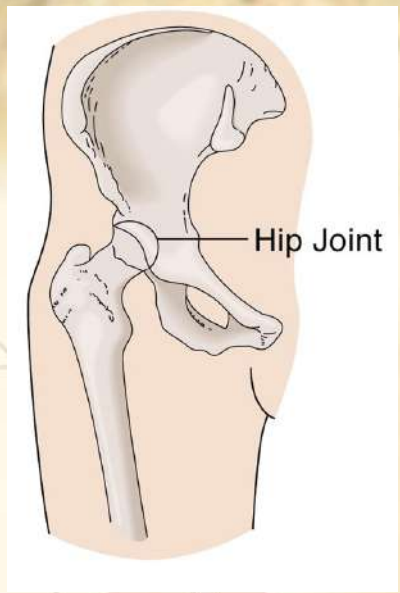
Structures of Synovial Joints

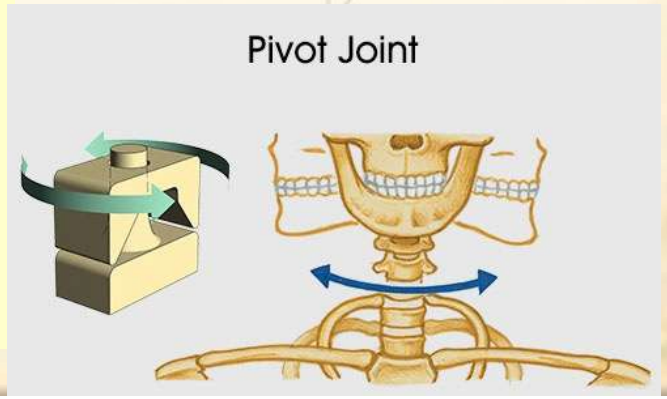


Synovial Joints

3 joints page – write definition and examples under each picture

- The **movable** joints in the body
- **Ball and socket** joints allow a wide range of movement in many directions
- **Hinge joints** allow movement primarily in one direction or plane
- **Pivot Joints** allow movement on an axis





- **Trim the skeleton page and glue into notebook on it's own page. We will color, label, and add notes to this page**