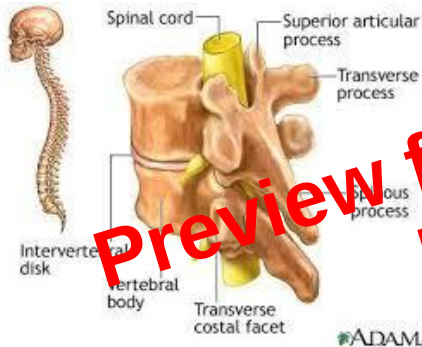


Types of bones.

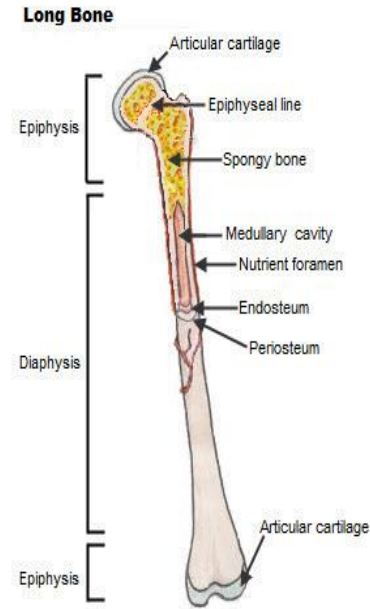
- Irregular Bones



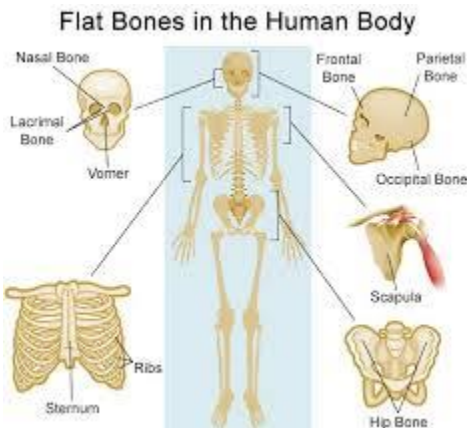
- Short Bones



- Long Bones



- Flat Bones



- Sesamoid Bones



Bone Growth

- For starters, strong healthy bones are essential for effective sports performance. But, what is the process of bone growth?

- Ossification, is the process that forms bones.

- Bone develops in length from INFANCY to adulthood.
- The minerals calcium and phosphate accumulate on the cartilage causing the cells to die. Blood vessels then grow in the place and transport osteoblasts and nutrients to the developing bones.

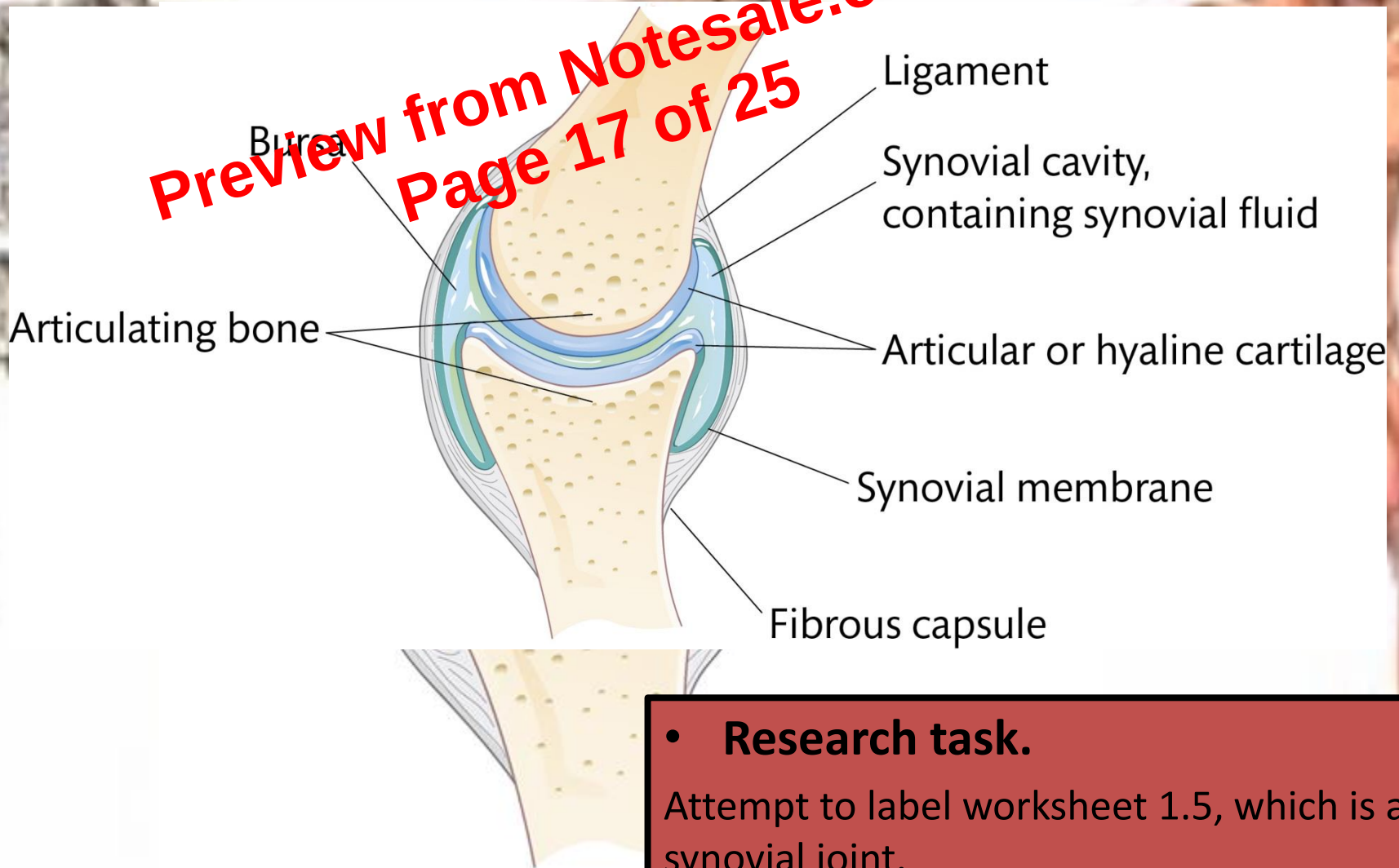
- REMEMBER: Bone is continuously being broken down and restructured due to the dynamic relationship between bone cells.

- Key words:
- Osteoblasts – responsible for creating bones by secreting collagen.
- The activity of Osteoblasts increase when you exercise so bones become stronger.
- This essentially means that exercise can PREVENT osteoporosis.

- Key words:
- Osteoclasts – They remove bone, osteoclasts dissolve bone mineral, this degraded bone is then removed. They also remove unnecessary calcium.
- They are extremely important in remodelling the bone during injury and removal of excess bone cells.

- Injury...
- <https://www.youtube.com/watch?v=ZL6hbg8GUw0>

Types of Synovial Joint



- **Research task.**

Attempt to label worksheet 1.5, which is a synovial joint.

If you struggle, research to help you.

Adaptations

These are the long term ways that the skeletal system changes due to **regular** training. They are long lasting, **provided** an athlete doesn't stop training.

- These include:
 - Increased bone density and strength due to increased mineral content and bone cell activity which makes the bones less susceptible to fractures and breaks.
 - Increased ligament strength which reduces risk of dislocation at a joint.
 - Increased thickness of articular cartilage which protects the ends of the bones from wear and tear..
 - These adaptations basically reduce risk of injury making it possible to continue to train harder! Obviously if there is rest to allow skeletal system to recuperate.

