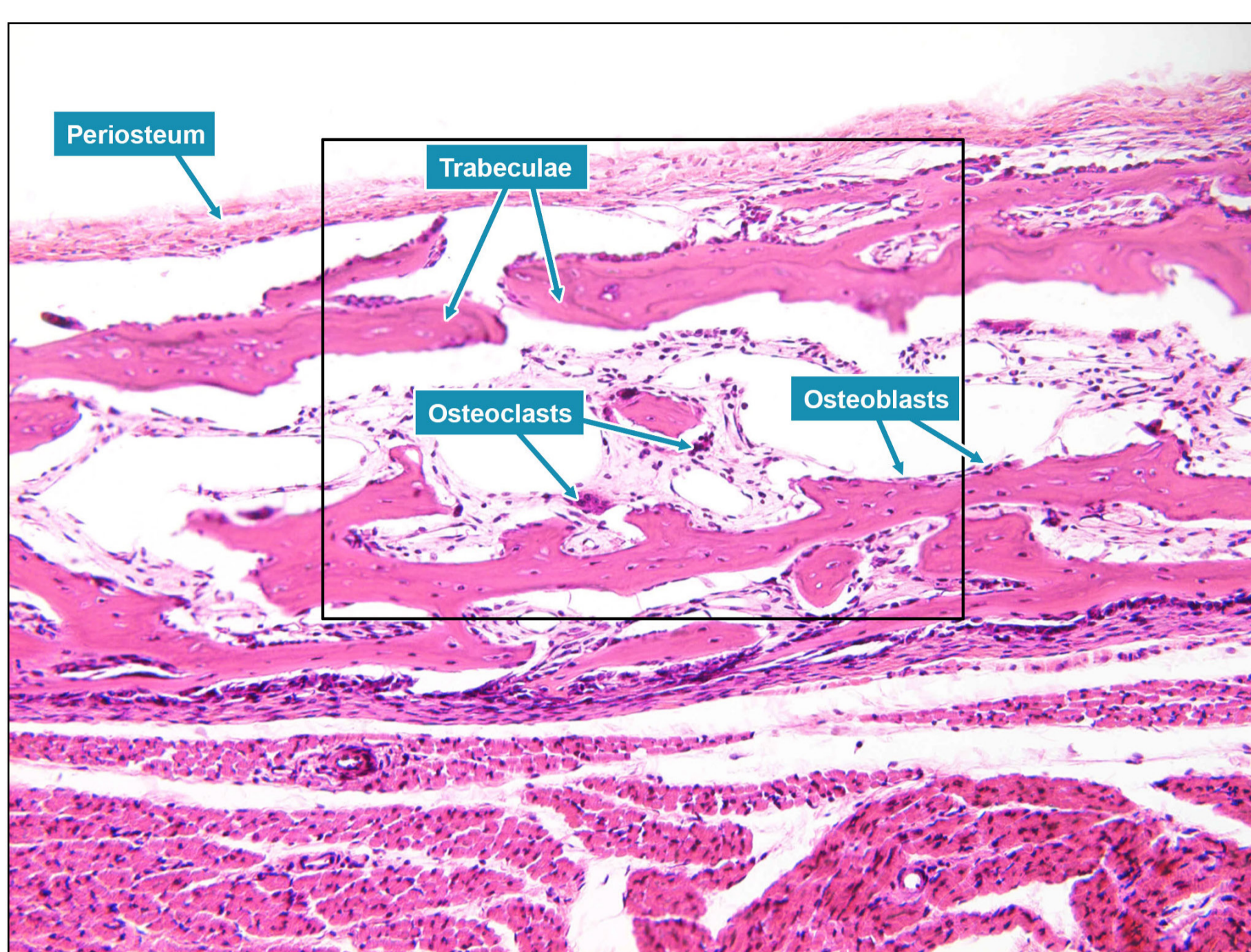


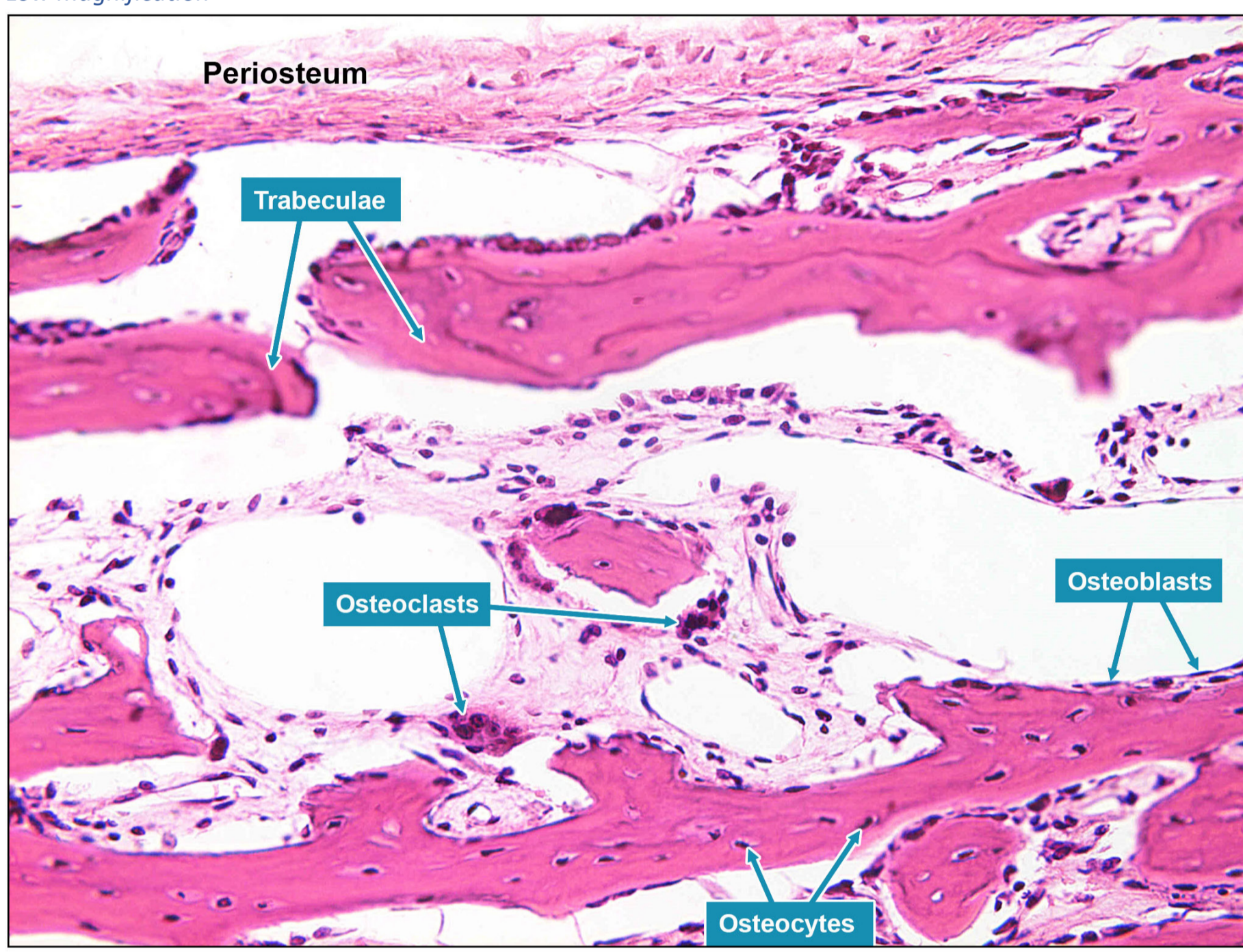
## SKULL KITTEN H&amp;E

## Musculoskeletal System

The outermost layer of the bone is the **Periosteum**. The only bones not covered by periosteum are sesamoid bones.



Low magnification



High magnification

1. Periosteum is bound to bone by bundle of Type I collagen called perforating (Sharpey) Fibres.
2. Periosteum is made of dense connective tissue having: (i) fibrous layer and (ii) a cellular layer.
3. Trabeculae around the marrow cavities are covered by endosteum.
4. Outer layer of the periosteum is made of thick collagen Fibres with abundant blood supply and is well innervated.
5. Inner layer of the periosteum is called the cambium and contains osteoprogenitor cells and osteoblasts, and osteoclasts.
6. Osteoblasts are necessary to synthesize bone matrix. Coordinate skeleton mineralization.
7. Osteoblasts secrete osteoid and as it undergoes calcification, hardens, and traps the osteoblasts, they differentiate further as osteocytes.
8. Osteoclasts are multinucleated giant cells involved in the reabsorption and remodelling of bone tissue.