**RAD guide—Bone Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Development** | **Bone Development** |
| Learning Goal |  |
| **Key Terms** | |  |  |  | | --- | --- | --- | | **Pre-Reading**  **(√-, √, √+)** | **Key Terms** | **Post-**  **Reading**  **(√-, √, √+)** | |  | Osteogenesis |  | |  | Ossification |  | |  | Membrane bone |  | |  | Endochondral bone |  | |  | Intramembranous ossification |  | |  | Endochondral ossification |  | |  | Endochondral bone |  | |  | Intramembranous ossification |  | |  | Endochondral ossification |  | |  | Primary ossification center |  | |  | Perichondrium |  | |  | Periosteum |  | |  | Bone collar |  | |  | Osteoblasts |  | |  | Diaphysis |  | |  | Periosteal bud |  | |  | Osteoclasts |  | |  | Hypertrophy |  |  | |  | Secondary ossification center |  | |
| **Formation of the bony**  What does the bone made by intramembranous ossification develop from?  What does the bone made by endochondral ossification develop from?  Why does it make sense to develop bone later in development?  When is this bone developing?  **Intramembranous ossification**  What type of bone is formed by this?  Draw and describe the steps  *1*  *2*  *3*  *4* | ing things... |
| **Endochondral Ossification**  What does this process use to form bone?  Where does this ossification begin?  What causes mesenchymal cells to differentiate into osteoblasts?  **Endochondral Ossification** |  |
| **The Steps**  Draw and Describe  The steps  1  2  3  4  5  What does a periosteal bud contain?  What function to the osteoclasts serve?  Why do we say ossification chases cartilage?  Where does hyaline cartilage remain after secondary ossification? |  |