**Lesson Title: Bone Growth and Development**

**Unit: 5**

TEKS: 130.7(C) 11 (b)(c)

OBJECTIVES

The student will be able to:

1. List types of bone
2. Know the function of cells involved in bone growth
3. Describe the two methods of bone formation in detail
4. Explain bone remodeling

TEACHING MATERIALS, TOOLS, AND EQUIPMENT

PPT: Bone growth and development

TEACHING PROCEDURE

|  |  |
| --- | --- |
| Interest Approach/Anticipatory Set | Teacher Notes |
| Use this area as an introduction of what will be done to get the students ready to learn.  Consider some of the following: 1. Link – http://www.youtube.com/watch?v=0dV1Bwe2v6c2. Motivation – TRANSITION –  | Ask questions to students |

|  |  |
| --- | --- |
| Teaching Plan and Strategy / Presentation of New Material | Teacher Notes |
| Objective 1: List types of bone* There are three types found in the ppt. It is important that students not only list the types but know what how they serve to function within the body.

Objective 2: Know the function of cells involved in bone growth* Students should know the following vocabulary:

 Osteoblasts Osteocytes Chondroblasts/ Chondrocytes Osteoclasts Bone lining cells Fibroblasts* <http://www.youtube.com/watch?v=78RBpWSOl08>

This short video of bone resorption should help reinforce vocabularyObjective 3: Describe the two methods of bone formation in detail* Endochondral Ossification

 Replaces cartilage with bone* Intramembranous Ossification

 Does not use cartilage to make boneObjective 4: Explain bone remodeling* Slide 25 and 26
* Slide 26 has a chart that helps
* Do bone remodeling lab. This will require the teacher to make copies ahead of time
 | Power point over history. Lecture; involve students by reading slides.  |

ENGAGEMENT

Students will make a bone remodeling chart that should help them understand the different phases of bone remodeling.

EVALUATION

 Short Q&A

ADDITIONAL MATERIALS

College & Career Readiness Standards: II.C.1; II.E.7 (Write in the number/letters already crosswalked for your unit)

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