

# ANATOMY AND PHYSIOLOGY

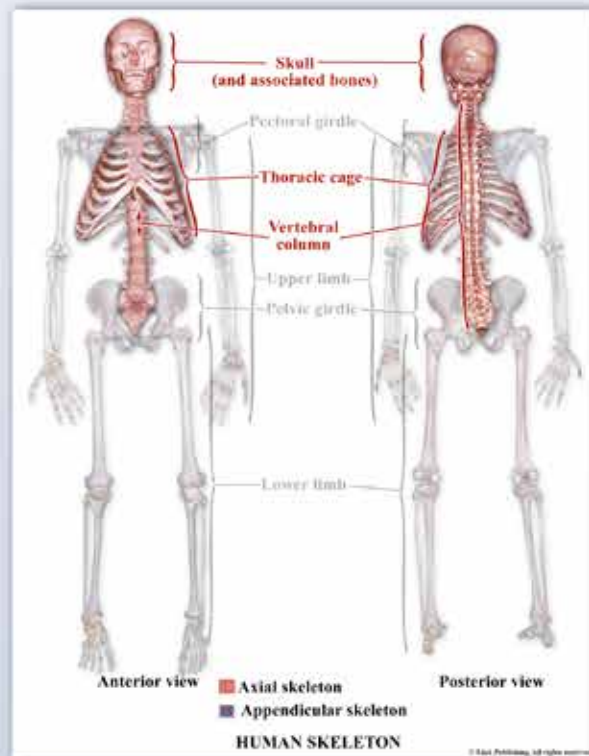
## TEXT and LABORATORY

### WORKBOOK

## CHAPTER 17

### INTRODUCTION TO THE

### AXIAL SKELETON



# TABLE OF CONTENTS

## THE AXIAL SKELETON

<b>SKULL</b> .....	<b>6</b>
Cranial bones .....	6
Facial bones .....	6
Lab Activity 1 - Observation of Skull .....	6
Learning Outcomes Review Questions .....	10
Practice Test 1 - SKULL .....	16
<b>BONES OF THE CRANIUM - INDIVIDUAL STUDY</b> .....	<b>17</b>
Frontal bone .....	17
Lab Activity 1 - Observation of Frontal Bone .....	17
Learning Outcomes Review Questions .....	18
Practice Test 2 - FRONTAL BONE .....	18
Parietal Bones .....	19
Lab Activity 2 - Observation of Parietal Bones .....	19
Sutures Associated with the Parietal Bones .....	20
Learning Outcomes Review Questions .....	21
Practice Test 3 - PARIETAL BONE .....	22
Occipital bone .....	23
Lab Activity 3 - Observation of Occipital Bone .....	23
Learning Outcomes Review Questions .....	24
Practice Test 4 - OCCIPITAL BONE .....	24
Temporal bones .....	25
Lab Activity 4 - Observation of Temporal Bones .....	25
Learning Outcomes Review Questions .....	27
Practice Test 5 - TEMPORAL BONE .....	28
Sphenoid bone .....	29
Lab Activity 5 - Observation of Sphenoid Bone .....	29
Learning Outcomes Review Questions .....	30
Practice Test 6 - SPHENOID BONE .....	30
Ethmoid bone .....	31
Lab Activity 6 - Observation of Ethmoid Bone .....	31
Learning Outcomes Review Questions .....	32
Practice Test 7 - ETHMOID BONE .....	32
<b>BONES OF THE FACE (FACIAL BONES) - INDIVIDUAL STUDY</b> .....	<b>33</b>
Mandible .....	33
Lab Activity 7 - Observation of Mandible .....	33
Learning Outcomes Review Questions .....	34
Practice Test 8 - MANDIBLE .....	34
Maxillae bones (maxillary bones) .....	35
Lab Activity 8 - Observation of Maxillae Bones .....	35
Learning Outcomes Review Questions .....	36
Practice Test 9 - MAXILLARY BONES (MAXILLAE) .....	36
Nasal bones .....	37
Lab Activity 9 - Observation of Nasal Bones .....	37
Learning Outcomes Review Questions .....	37
Lacrimal bones .....	38
Lab Activity 10 - Observation of Lacrimal Bones .....	38
Inferior Nasal Conchae .....	39
Lab Activity 11 - Observation of Inferior Nasal Conchae .....	39
Practice Test 10 - NASAL, LACRIMAL, AND INFERIOR NASAL CONCHAE .....	39
Zygomatic bones .....	40
Lab Activity 12 - Observation of Zygomatic Bones .....	40
Practice Test 11 - ZYGOMATIC .....	41
Palatine bones .....	42
Lab Activity 13 - Observation of Palatine Bones .....	42
Learning Outcomes Review Questions .....	43
Vomer .....	44

Lab Activity 14 - Observation of Vomer .....	44
Practice Test 12 - PALATINE BONES AND VOMER .....	44
<b>FORAMINA, CANALS, FISSURES, MEATUSES .....</b>	<b>45</b>
<b>CANALS, FORAMINA, FISSURES, AND MEATUSES OF SKULL .....</b>	<b>47</b>
Lab Activity 15 - Observation of Skull .....	47
Learning Outcomes Review Questions .....	48
Practice Test 13 - FORAMINA, CANALS, FISSURES, MEATUSES .....	51
<b>PARANASAL SINUSES .....</b>	<b>52</b>
Lab Activity 16 - Observe X-Ray of Skull, or MRI of head .....	52
Learning Outcomes Review Questions .....	54
Practice Test 14 - PARANASAL SINUSES .....	54
<b>SKULL'S ASSOCIATED BONES .....</b>	<b>55</b>
Hyoid bone .....	55
Lab Activity 17 - Observation of the Hyoid Bone .....	55
Ossicles .....	56
Lab Activity 18 - Observation of the Ossicles .....	56
Learning Outcomes Review Questions .....	57
Practice Test 15 - SKULL'S ASSOCIATED BONES .....	58
Practice Test 16 - TERMINOLOGY EXAM - SKULL'S ASSOCIATED BONES .....	58
<b>VERTEBRAL COLUMN .....</b>	<b>59</b>
Lab Activity 19 - Observation of the Vertebral Column .....	59
Learning Outcomes Review Questions .....	61
Practice Test 17 - VERTEBRAL COLUMN .....	61
Typical Vertebrae Structure .....	62
Lab Activity 20 - Observation of Articulated Vertebral Column and Vertebrae .....	62
Learning Outcomes Review Questions .....	63
Practice Test 18 - STRUCTURE OF A TYPICAL VERTEBRA .....	63
<b>REGIONAL CHARACTERISTICS OF VERTEBRAE .....</b>	<b>64</b>
Cervical Division (C1 - C7) .....	64
Lab Activity 21 - Typical Cervical Vertebrae .....	65
Learning Outcomes Review Questions .....	66
Practice Test 19 - REGIONAL CHARACTERISTICS VERTEBRAE, CERVICAL DIVISION .....	66
Atlas and Axis .....	67
Lab Activity 22 - Observation of the Atlas .....	67
Lab Activity 23 - Observation of the Axis .....	67
Learning Outcomes Review Questions .....	68
Practice Test 20 - REGIONAL CHARACTERISTICS VERTEBRAE, ATLAS and AXIS .....	68
Articulation of Cervical Vertebrae .....	69
Lab Activity 24 - Articulation of Cervical Vertebrae .....	69
Learning Outcomes Review Questions .....	71
Practice Test 21 - ARTICULATION OF CERVICAL VERTEBRAE .....	72
Thoracic Division (T <sub>1</sub> - T <sub>12</sub> ) .....	73
Lab Activity 25 - Observation of Articulated Spinal Column and Thoracic Vertebrae .....	74
Lab Activity 26 - Observation of Articulated Vertebral Column .....	75
Lab Activity 27 - Observation of Thoracic Vertebrae and Ribs .....	76
Learning Outcomes Review Questions .....	77
Practice Test 22 - REGIONAL CHARACTERISTICS VERTEBRAE, THORACIC DIVISION .....	79
Lumbar Division (L1 - L5) .....	80
Lab Activity 28 - Observation of Articulated Spinal Column and Lumbar Vertebra .....	81
Lab Activity 29 - Observation of Lumbar Vertebrae .....	82
Learning Outcomes Review Questions .....	83
Practice Test 23 - REGIONAL CHARACTERISTICS VERTEBRAE - LUMBAR DIVISION .....	84
Sacral Division .....	85
Lab Activity 30 - Observation of the Sacrum .....	85
Learning Outcomes Review Questions .....	88
Coccyx .....	90
Lab Activity 31 - Observation of the Coccyx .....	90
Learning Outcomes Review Questions .....	90
Practice Test 24 - REGIONAL CHARACTERISTICS VERTEBRAE SACRAL and COCCYGEAL DIVISIONS .....	90

<b>THORAX (THORACIC CAGE)</b> .....	<b>91</b>
<b>Lab Activity 32 - Observation of the Thorax (Thoracic Cage)</b> .....	<b>91</b>
<b>Learning Outcomes Review Questions</b> .....	<b>92</b>
<b>Practice Test 25 - THORAX (THORACIC CAGE)</b> .....	<b>92</b>
<b>RIBS</b> .....	<b>93</b>
<b>Lab Activity 33 - Observation of Articulated Skeleton and Ribs</b> .....	<b>93</b>
<b>Learning Outcomes Review Questions</b> .....	<b>95</b>
<b>Practice Test 26 - RIBS</b> .....	<b>96</b>
<b>STERNUM</b> .....	<b>97</b>
<b>Lab Activity 34 - Observation of the Sternum</b> .....	<b>97</b>
<b>Practice Test 27 - STERNUM</b> .....	<b>100</b>
<b>COPYRIGHT AND PRODUCT DETAILS</b> .....	<b>101</b>