

REVIEW SHEET

The Axial Skeleton

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The Skull

1. First, match the bone names in column B with the descriptions in column A (the items in column B may be used more than once). Then, circle the bones in column B that are cranial bones.

Column A

- _____ B
 _____ O
 _____ F
 _____ H
 _____ J
 _____ K
 _____ I
 _____ L
 _____ E
 _____ J
 _____ A
 _____ M
 _____ L
 _____ A
 _____ F
 _____ M

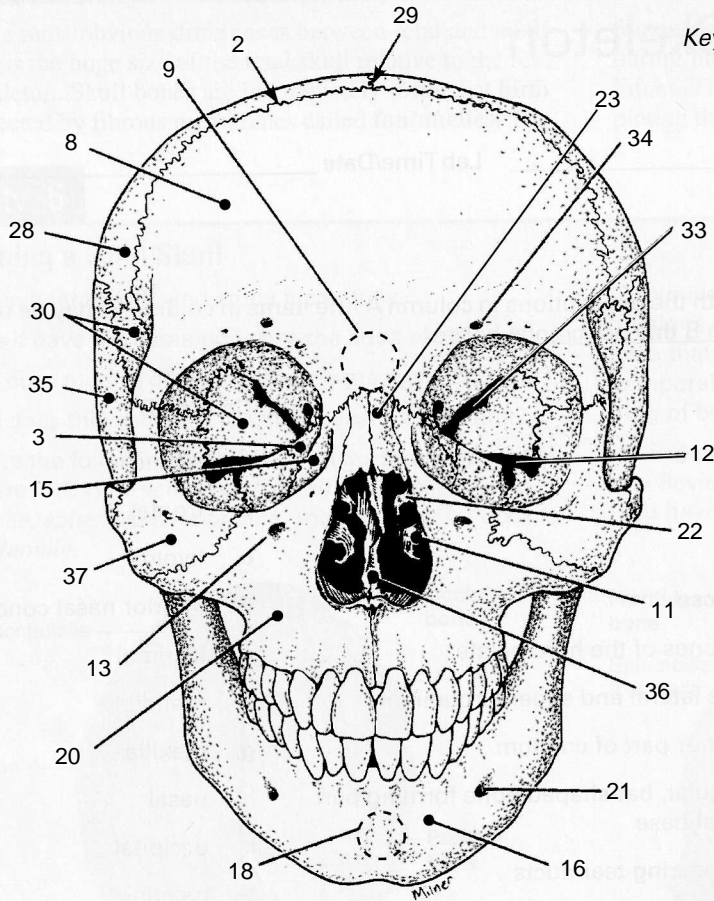
 _____ B, A, L, G
 _____ I
 _____ I
 _____ C
 _____ M
 _____ N, A
 _____ A
 _____ F, G
 _____ N

1. forehead bone
2. cheekbone
3. lower jaw
4. bridge of nose
5. posterior bones of the hard palate
6. much of the lateral and superior cranium
7. most posterior part of cranium
8. single, irregular, bat-shaped bone forming part of the cranial base
9. tiny bones bearing tear ducts
10. anterior part of hard palate
11. superior and middle nasal conchae form from its projections
12. site of mastoid process
13. site of sella turcica
14. site of cribriform plate
15. site of mental foramen
16. site of styloid process
17. four bones containing paranasal sinuses
18. condyles here articulate with the atlas
19. foramen magnum contained here
20. small U-shaped bone in neck, where many tongue muscles attach
21. organ of hearing found here
22. two bones that form the nasal septum
23. bears an upward protrusion, the "rooster's comb," or crista galli
24. contain sockets bearing teeth
25. forms the most inferior turbinate

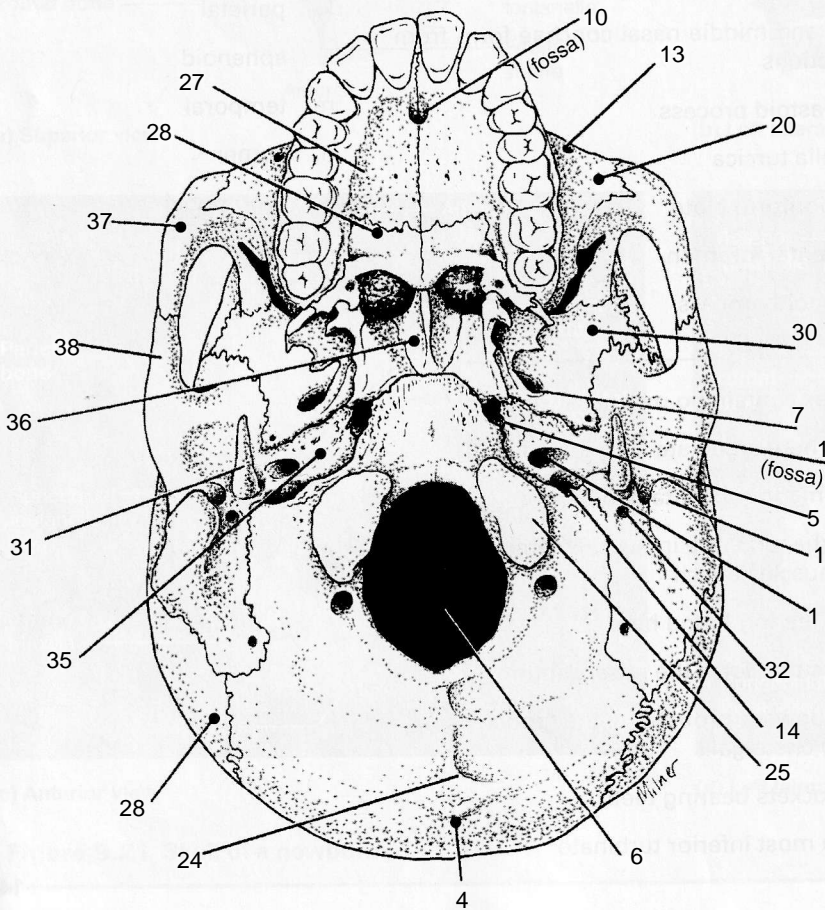
Column B

- a. ethmoid
- b. frontal
- c. hyoid
- d. inferior nasal concha
- e. lacrimal
- f. mandible
- g. maxilla
- h. nasal
- i. occipital
- j. palatine
- k. parietal
- l. sphenoid
- m. temporal
- n. vomer
- o. zygomatic

2. Using choices from the numbered key to the right, identify all bones (—), sutures (—>), and bone markings (—) provided with various leader lines in the two diagrams below. Some responses from the key will be used more than once.



- Key:
- 1. carotid canal
 - 2. coronal suture
 - 3. ethmoid bone
 - 4. external occipital protuberance
 - 5. foramen lacerum
 - 6. foramen magnum
 - 7. foramen ovale
 - 8. frontal bone
 - 9. glabella
 - 10. incisive fossa
 - 11. inferior nasal concha
 - 12. inferior orbital fissure
 - 13. infraorbital foramen
 - 14. jugular foramen
 - 15. lacrimal bone
 - 16. mandible
 - 17. mandibular fossa
 - 18. mandibular symphysis
 - 19. mastoid process
 - 20. maxilla
 - 21. mental foramen
 - 22. middle nasal concha of ethmoid
 - 23. nasal bone
 - 24. occipital bone
 - 25. occipital condyle
 - 26. palatine bone
 - 27. palatine process of maxilla
 - 28. parietal bone
 - 29. sagittal suture
 - 30. sphenoid bone
 - 31. styloid process
 - 32. stylomastoid foramen
 - 33. superior orbital fissure
 - 34. supraorbital foramen
 - 35. temporal bone
 - 36. vomer
 - 37. zygomatic bone



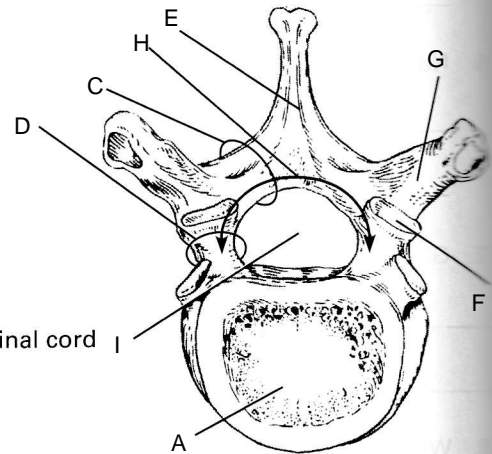
- 10 (fossa)
- 13
- 20
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29 (fossa)
- 30
- 31
- 32
- 33
- 34
- 35
- 36
- 37
- 38
- 1
- 4
- 5
- 6
- 7
- 14
- 17
- 19

- D Coccyx 6. "tail bone"; vestigial fused vertebrae
- B. Axis 7. supports the head; allows a rocking motion in conjunction with the occipital condyles

11. Using the key, correctly identify the vertebral parts/areas described below. (More than one choice may apply in some cases.) Also use the key letters to correctly identify the vertebral areas in the diagram.

- Key: a. body d. pedicle g. transverse process
 b. intervertebral foramina e. spinous process h. vertebral arch
 c. lamina f. superior articular facet i. vertebral foramen

- I 1. cavity enclosing the spinal cord
- E 2. weight-bearing portion of the vertebra
- E, G 3. provide levers against which muscles pull
- A, G 4. provide an articulation point for the ribs
- I 5. openings providing for exit of spinal nerves
- E, G 6. structures that form an enclosure for the spinal cord
- C, A, D 7. structures that form the vertebral arch



12. Describe how a spinal nerve exits from the vertebral column. _____

Spinal nerves exit through the Intervertebral foramina

13. Name two factors/structures that permit flexibility of the vertebral column.

Intervertebral discs and S-shape construction of the vertebrae

14. What kind of tissue makes up the intervertebral discs? Fibrocartilage

15. What is a herniated disc? A ruptured disc

What problems might it cause? if ruptured a herniated disc might cause adjacent nerves to be compressed and cause pain.

16. Which two spinal curvatures are obvious at birth? Cervical and Lumbar

Under what conditions do the secondary curvatures develop? _____

It develops after the child learns to sit up and stand.

17. On this illustration of an articulated vertebral column, identify each curvature indicated, and label it as a primary or a secondary curvature. Also identify the structures provided with leader lines, using the letters of the terms listed in the key below.

Key: a. atlas

b. axis

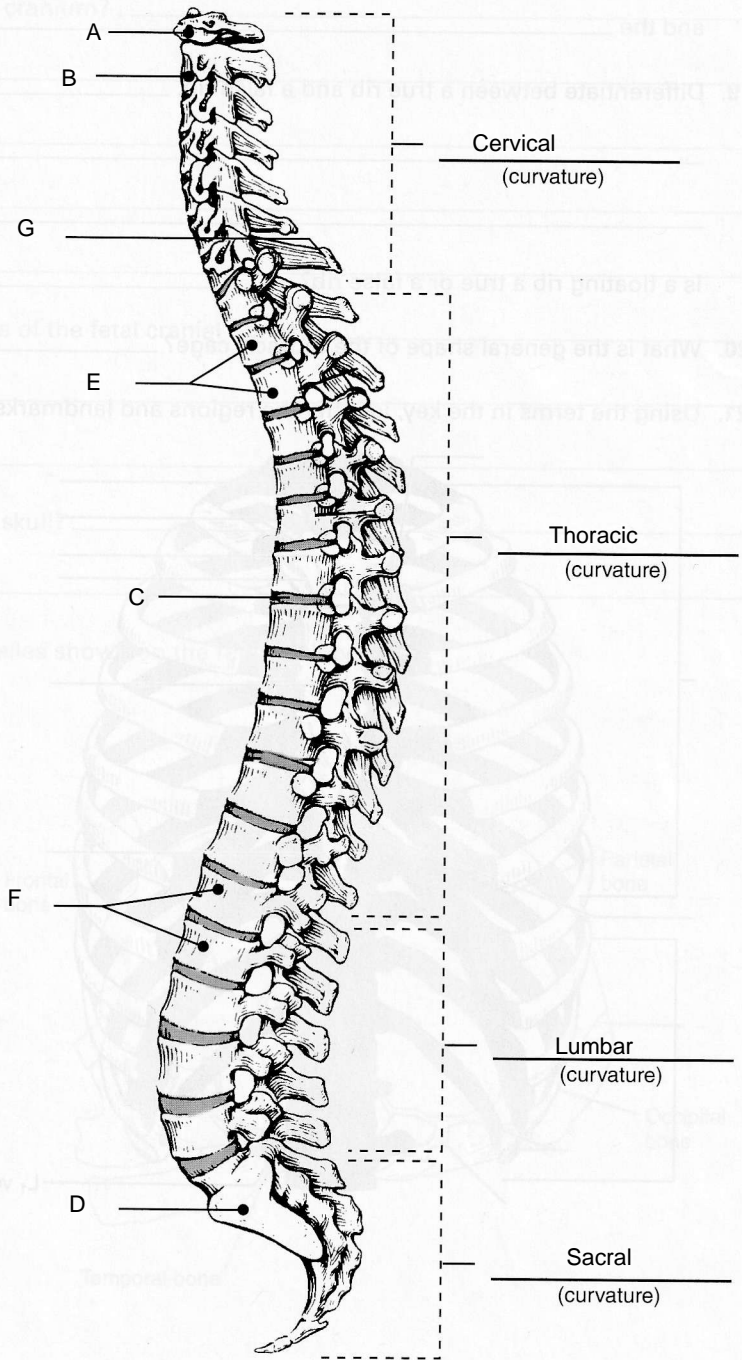
c. intervertebral disc

d. sacrum

e. two thoracic vertebrae

f. two lumbar vertebrae

g. vertebra prominens



The Thoracic Cage

18. The major bony components of the thorax (excluding the vertebral column) are the bony thorax
and the sternum, ribs, and costal cartilages.

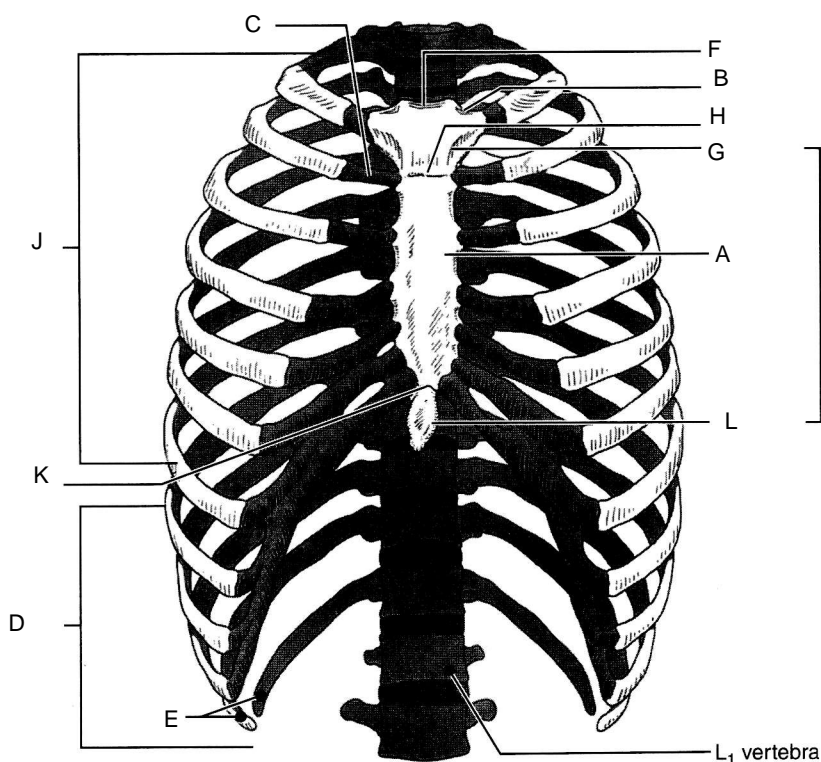
19. Differentiate between a true rib and a false rib. _____

True ribs attach directly to the sternum, where false ribs attach indirectly to the sternum.

Is a floating rib a true or a false rib? False ribs

20. What is the general shape of the thoracic cage? Cone shaped

21. Using the terms in the key, identify the regions and landmarks of the thoracic cage.



- Key:
- a. body
 - b. clavicular notch
 - c. costal cartilage
 - d. false ribs
 - e. floating ribs
 - f. jugular notch
 - g. manubrium
 - h. sternal angle
 - i. sternum
 - j. true ribs
 - k. xiphisternal joint
 - l. xiphoid process

The Fetal Skull

22. Are the same skull bones seen in the adult also found in the fetal skull? No. In fetal, the bones are incomplete

23. How does the size of the fetal face compare to its cranium? The face is much smaller and looks almost sqished, compare to the skull

How does this compare to the adult skull? The infant skull is not fully developed, and some bone shave yet to ossify.

24. What are the outward conical projections on some of the fetal cranial bones? Ossification centers

25. What is a fontanelle? Fibrous memembranes that connect the incomplete skull bones

What is its fate? They will close up as the child develops and the bones suture

What is the function of the fontanelles in the fetal skull? To connect the skull bones until they develop and suture together

26. Using the terms listed, identify each of the fontanelles shown on the fetal skull below.

Key:

- a. anterior fontanelle
- b. mastoid fontanelle
- c. posterior fontanelle
- d. sphenoidal fontanelle

