

- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____
- AB. _____
- AC. _____
- AD. _____
- AE. _____
- AF. _____
- AG. _____
- AH. _____

CHECK POINT

Skeleton, Anterior View

1. Name the bones that make up the cranial group. How many of each bone are in this group?
2. Name the bones that make up the facial group. How many of each bone are in this group?
3. Name the bones that form the pelvic girdle.
4. Name the bones that form the wrist.
5. The vertebral column is composed of _____ vertebrae. How many of each group of vertebrae are there?

EXERCISE 5.4:

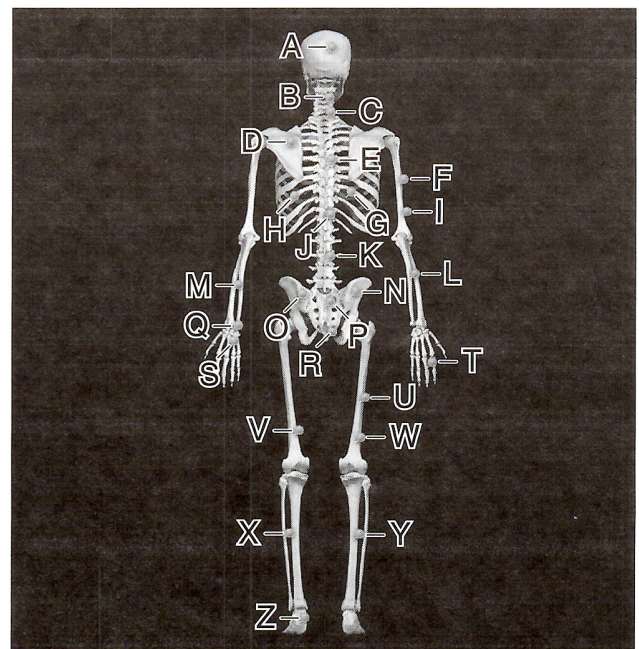
Skeleton, Posterior View



SELECT TOPIC
Skeleton

SELECT VIEW
Posterior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____

CHECK POINT

Skeleton, Posterior View

1. Name the group of bones that form the palm of the hand. What structures form the knuckles?
2. Name the group of bones that form the foot. How many are there?
3. Name the group of bones that form the fingers. How many compose each finger?
4. Name the lateral bone of the forearm. Name the medial bone of the forearm.
5. What is another name for the tailbone?

EXERCISE 5.5:

Locating Structures of the Head and Neck

There are 30 bones in the human adult head and neck, which can present a daunting task when it comes to learning each bone. With this in mind, the following tables are designed to allow you to discover which bones are visible in each view of **Anatomy & Physiology | Revealed®**. These tables are not meant to be tedious, but rather to help you become more familiar with each bone.

On the left of the following tables are names of structures found on the head and neck. The names of specific bones are aligned to the left, and the structures found on those bones are listed under them indented to the right. Using **Anatomy & Physiology | Revealed®**, open each dissection view listed across the top right of the table and put an "X" in the columns under the views where you find the structures listed in the left column. Not all bones or structures will be visible in all views.

Table 5.6 Structures of the Head and Neck—Cervical Vertebrae

Structures	Dissection Views								
	Individual Bone	Anterior	Inferior	Lateral	Mid-sagittal	Posterior	Superior	Skull Cranial Cavity	Orbit
Atlas (C1 vertebra)									
Axis (C2 vertebra)									
Cervical vertebrae									
Spinous process (cervical)									
Transverse process (cervical)									
Vertebral body (cervical)									
Intervertebral disk									

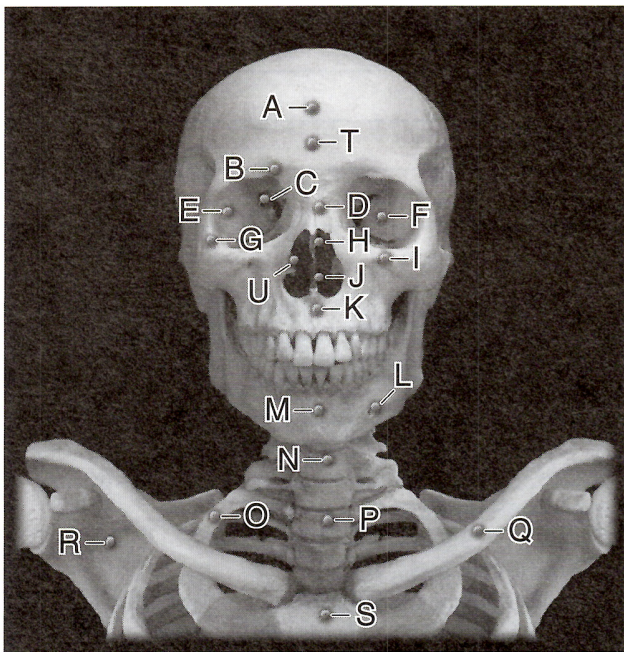
Bonus Question: Which bones are characterized by the presence of transverse foramina?

EXERCISE 5.6:**Head and Neck, Anterior View**

SELECT TOPIC
Head and Neck

SELECT VIEW
Anterior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

A. _____
B. _____

C. _____
D. _____
E. _____
F. _____
G. _____
H. _____
I. _____
J. _____
K. _____
L. _____
M. _____
N. _____
O. _____
P. _____
Q. _____
R. _____
S. _____
T. _____
U. _____

CHECK POINT**Head and Neck, Anterior View**

- Name the bones contributing to the orbit.
- Name the bone known as the collar bone.
- What structures are formed by the frontal bone?
- Which is the shortest rib?
- Name the superior part of the sternum.

EXERCISE 5.7:

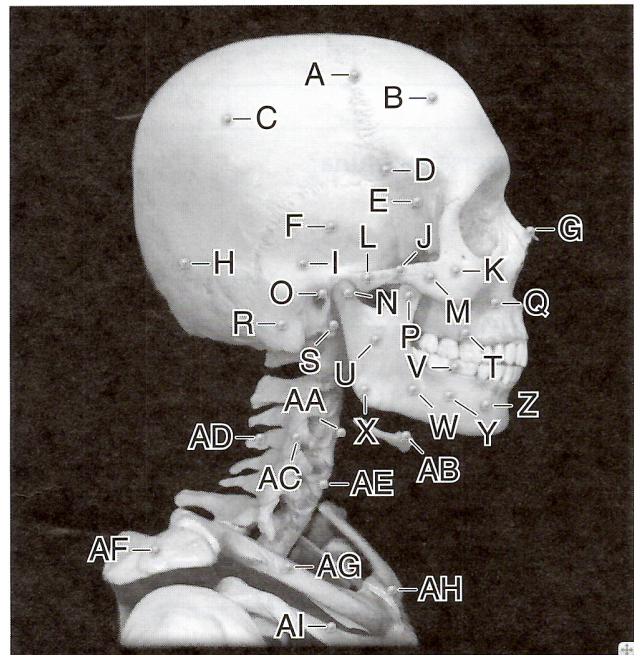
Head and Neck, Lateral View



SELECT TOPIC
Head and Neck

SELECT VIEW
Lateral

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____

- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____
- AB. _____
- AC. _____
- AD. _____
- AE. _____
- AF. _____
- AG. _____
- AH. _____
- AI. _____

CHECK POINT

Head and Neck, Lateral View

- Name the only bone in the body that does not articulate with any other bone.
- Name the two bone processes that make up the zygomatic arch.
- Name the “sockets” for the teeth.
- Describe the pterion.
- What structures of which bones form the temporomandibular joint?

EXERCISE 5.8:

Thorax, Anterior View



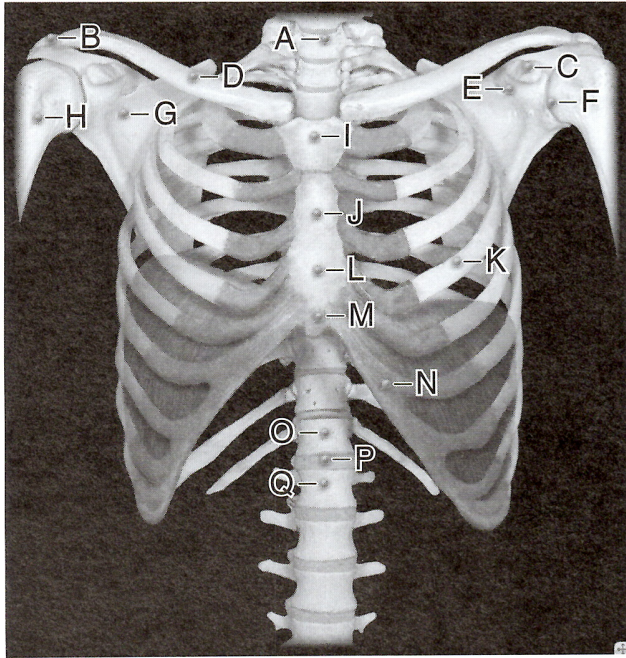
SELECT TOPIC

Thorax

SELECT VIEW

Anterior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____

CHECK POINT

Thorax, Anterior View

- Name the three parts of the sternum.
- Name a landmark for intramuscular injections.
- Name the structures that attach the ribs to the sternum.
- Name the two bones that form the glenohumeral joint.
- Name the structure found between the bodies of all but two vertebrae. This structure is lacking between which two vertebrae?

EXERCISE 5.9:

Abdomen, Anterior View



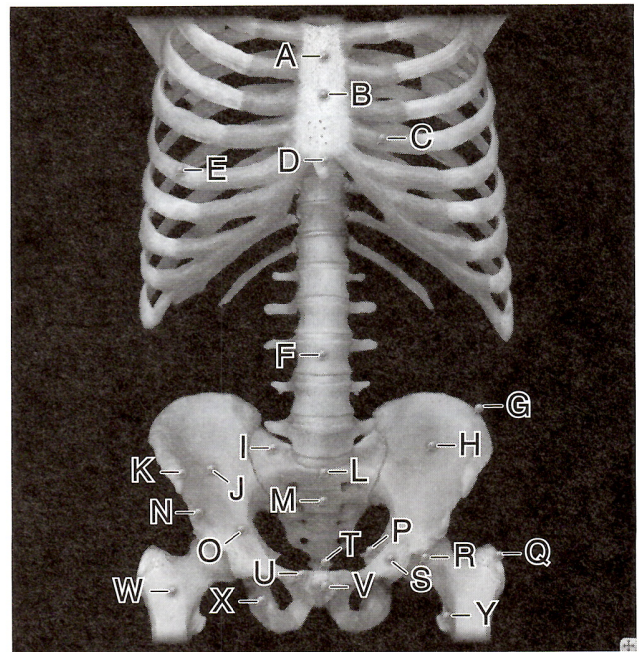
SELECT TOPIC

Abdomen

SELECT VIEW

Anterior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____

- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____

CHECK POINT

Abdomen, Anterior View

1. What process occurs to the pubic symphysis during late pregnancy?
2. What Latin term means “wing”? Where is a structure with this name located?
3. Name a landmark for intramuscular injections.
4. What term refers to the hip joint socket? Which bones contribute to this structure?
5. Name the structure formed by five fused vertebrae.

EXERCISE 5.10:

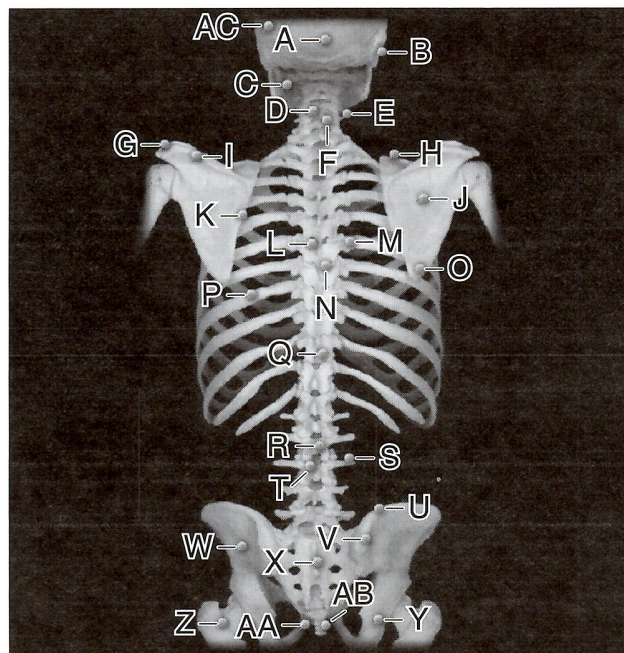
Back, Posterior View



SELECT TOPIC
Back

SELECT VIEW
Posterior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____

- Q. _____
 R. _____
 S. _____
 T. _____
 U. _____
 V. _____
 W. _____
 X. _____
 Y. _____
 Z. _____
 AA. _____
 AB. _____
 AC. _____

CHECK POINT

Back, Posterior View

1. Name the large, triangular flat bone of the superior back.
2. Name the three coxal bones.
3. Name the vertebrae of the lower back. How many are there?
4. Which intervertebral discs most commonly herniate?
5. Name the structure marked by a "dimple" on the lower back.

Skull and Associated Bones



SELECT ANIMATION

Skull

PLAY

After viewing the animation, answer these questions:

1. The bones that surround and protect the brain are referred to as the _____ bones.
2. The bones that form the underlying structure of the face are referred to as the _____ bones.
3. With one exception, the bones of the skull articulate with each other through joints known as _____. The exception is the _____.
4. There are numerous holes in the skull called _____.

5. List the functions of these holes?

EXERCISE 5.11:

Skull, Anterior View



SELECT TOPIC
Skull and
Associated Bones

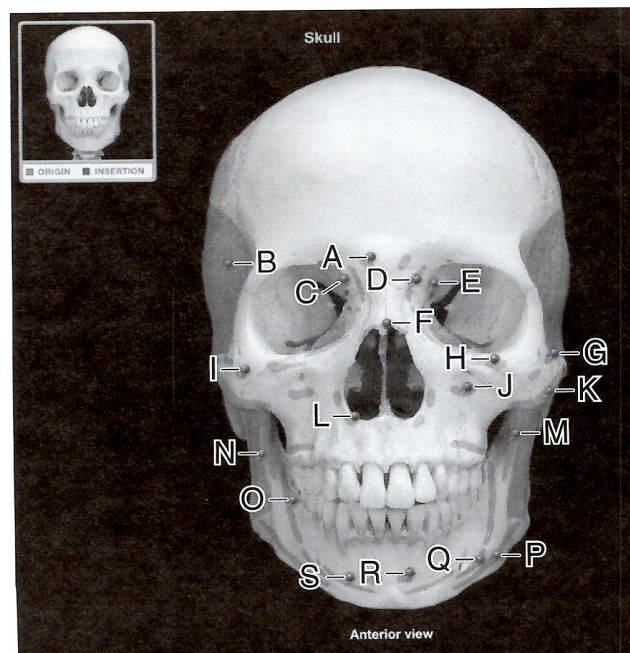
SELECT TOPIC
Skull

SELECT VIEW
Anterior

HEADS UP!

Many of the views we will see of the Skeletal System will indicate the locations of muscle attachments. These attachments are of two types—**Origins** and **Insertions**. **Origins**, as indicated by red shading, are the relatively stationary or immobile points of skeletal muscle attachment. The **Insertions**, indicated by blue shading, are the points where a muscle attaches to a bone and produces movement. One way to remember the distinction between the two is to consider your life. Your **Origin**, or location of your birth, never changes or moves as you go about your life. But, your **Insertion**, where you are inserted on the earth at this time may be different than your origin. Thus, your **Origin never moves**, but when you move, your **Insertion moves** to another location.

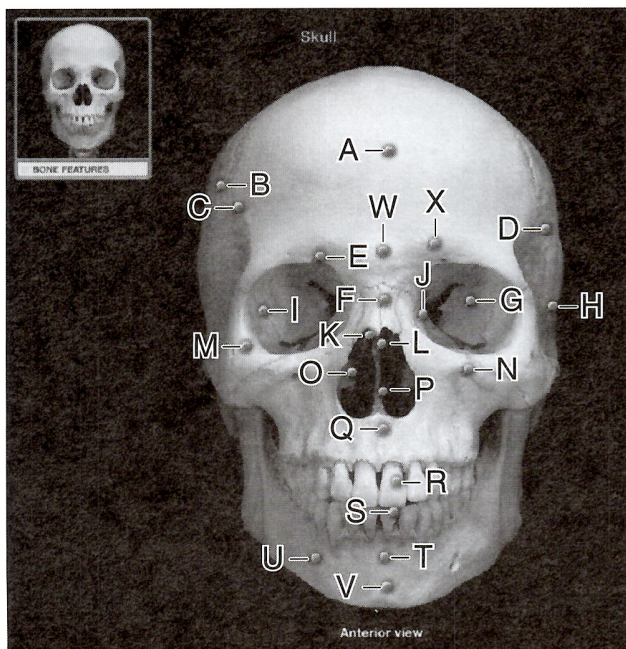
- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

A. _____
 B. _____
 C. _____
 D. _____
 E. _____
 F. _____
 G. _____
 H. _____
 I. _____
 J. _____
 K. _____
 L. _____
 M. _____
 N. _____
 O. _____
 P. _____
 Q. _____
 R. _____
 S. _____

- Click **LAYER 2** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

A. _____
 B. _____
 C. _____
 D. _____
 E. _____
 F. _____
 G. _____
 H. _____
 I. _____
 J. _____
 K. _____
 L. _____
 M. _____
 N. _____
 O. _____
 P. _____
 Q. _____
 R. _____
 S. _____
 T. _____
 U. _____
 V. _____
 W. _____
 X. _____

CHECK POINT

Skull, Anterior View

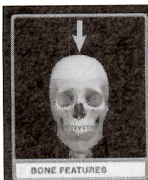
1. Name the structures transmitted through the mental foramen.
2. Name a feature of the skull that can be either a notch or a foramen.
3. What two bones contain teeth?
4. What is the name for the sockets of the teeth? (You may have to revisit earlier parts of this chapter to answer this one.)
5. The nasal septum consists of what specific bones or structures of bones?

Skull, Superior View



SELECT VIEW
Superior

- EXERCISE 5.12:**
- Skull, Superior View**
- SELECT TOPIC**
- Skull**
- LAYER 1 in the LAYER CON**
- t will see the following image:*

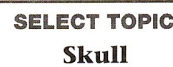


- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____

Skull, Superior View

1. Name the joint between the parietal bones.
2. Name the joint between the frontal and the parietal bones.
3. Name the bone type found in or near the sutures of the skull.
4. Where are these bones most often found?
5. Name the skull bone that articulates with the verte-

Skull, Lateral View



SELECT VIEW
Lateral

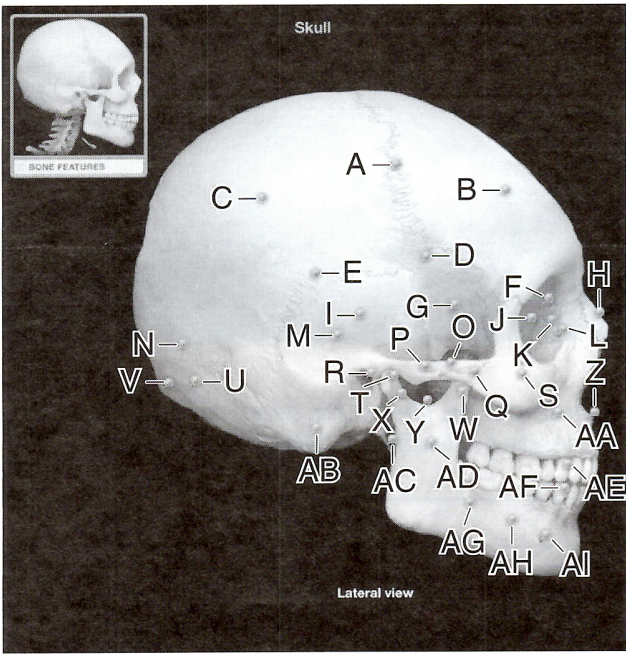
- LAYER 1** in the **LAYER CONT**
 you will see the following image:



- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____

- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____

• Click **LAYER 2** in the **LAYER CONTROLS** window, and you will see the following image:



• Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____

- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____
- AB. _____
- AC. _____
- AD. _____
- AE. _____
- AF. _____
- AG. _____
- AH. _____
- AI. _____

CHECK POINT

Skull, Lateral View

- 1. Name the specific bony structures that form the temporomandibular joint.
- 2. What two bones make up most of the lateral skull (one on each side)?
- 3. What suture is their point of articulation?

EXERCISE 5.14:

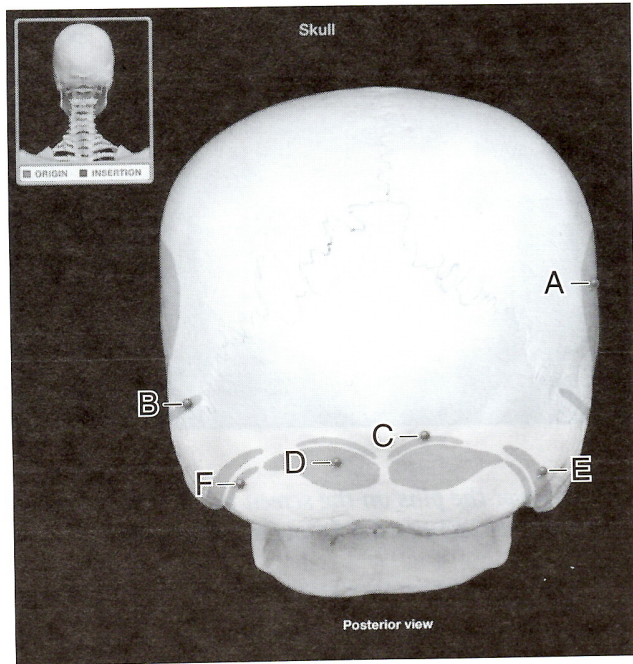
Skull, Posterior View



SELECT TOPIC
Skull

SELECT VIEW
Posterior

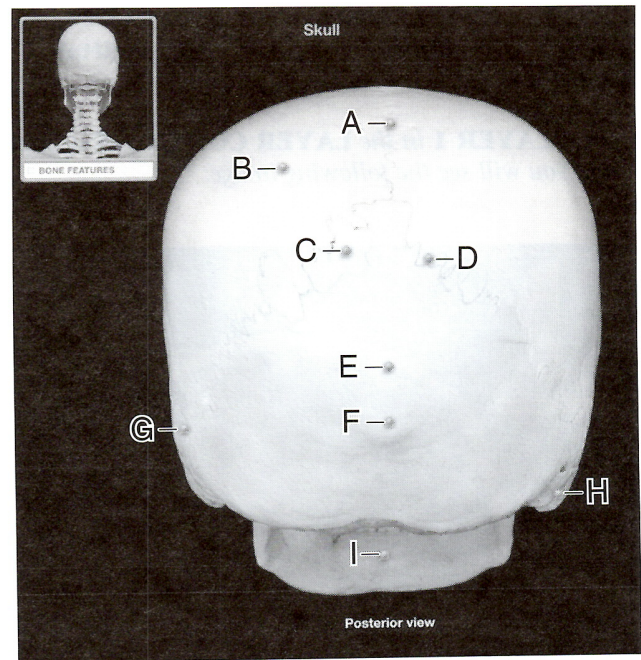
- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____

- Click **LAYER 2** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____

CHECK POINT

Skull, Posterior View

- What suture forms the joint between the parietal and occipital bones?
- What bone forms most of the posterior skull?
- What is the attachment site on the skull for the nuchal ligament?

- V. _____
 W. _____
 X. _____
 Y. _____
 Z. _____
 AA. _____
 AB. _____
 AC. _____
 AD. _____
 AE. _____
 AF. _____
 AG. _____
 AH. _____
 AI. _____
 AJ. _____
 AK. _____
 AL. _____
 AM. _____
 AN. _____
 AO. _____

CHECK POINT

Skull, Mid-sagittal View

1. When your dentist wants to numb your lower jaw by anesthetizing the nerves that serve the teeth and skin, what "hole" in what bone would be used to access those nerves?
2. Name the paranasal sinuses.
3. Name the structure that increases the surface area of the nasal cavity and plays an important role in warming inhaled air.
4. Name the structure that contains the sublingual salivary gland.
5. Name the muscles that attach to the styloid process of the temporal bone.

EXERCISE 5.16:

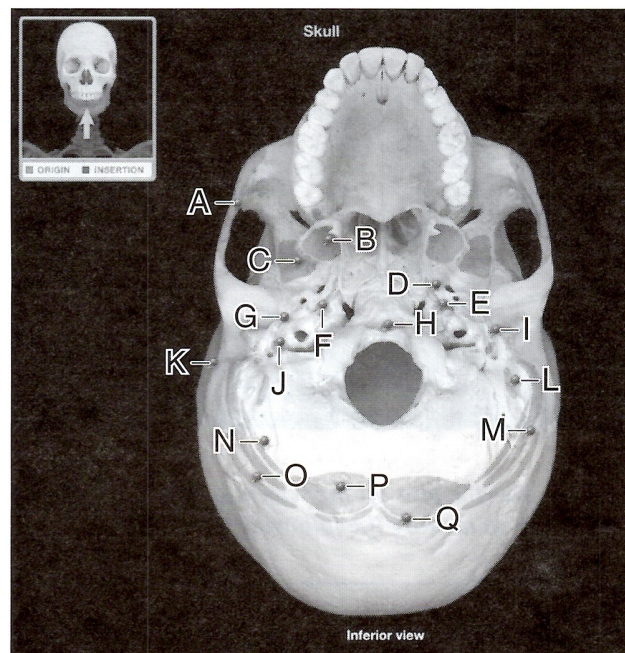
Skull, Inferior View



SELECT TOPIC
Skull

SELECT VIEW
Inferior

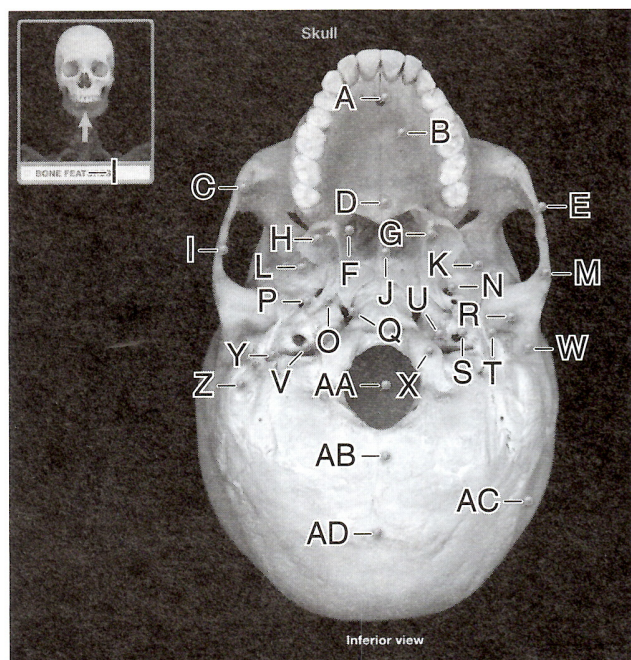
- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
 B. _____
 C. _____
 D. _____
 E. _____
 F. _____
 G. _____
 H. _____
 I. _____
 J. _____
 K. _____
 L. _____
 M. _____
 N. _____
 O. _____
 P. _____
 Q. _____

- Click **LAYER 2** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____

- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____
- AB. _____
- AC. _____
- AD. _____

CHECK POINT

Skull, Inferior View

- The zygomatic arch is made up of what two specific structures of what two bones?
- What is the name for the large foramen on the inferior side of the occipital bone?
- Name the irregular-shaped opening formed by the sphenoid, temporal, and occipital bones.

EXERCISE 5.17:

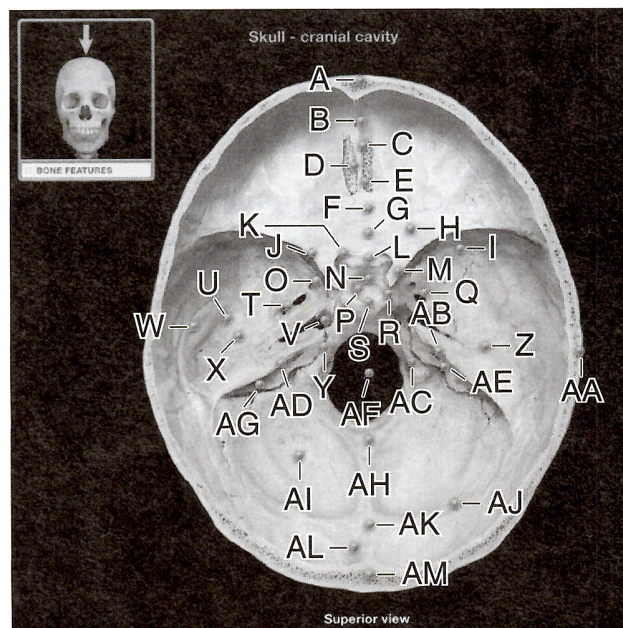
Skull—Cranial Cavity, Superior View

SELECT TOPIC
Skull and Associated
Bones

SELECT TOPIC
Skull—Cranial
Cavity

SELECT VIEW
Superior

- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

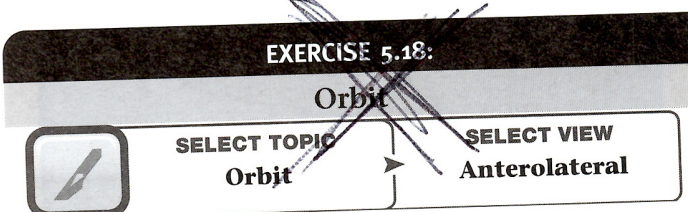
- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____
- J. _____
- K. _____
- L. _____
- M. _____
- N. _____
- O. _____
- P. _____
- Q. _____
- R. _____
- S. _____
- T. _____
- U. _____
- V. _____
- W. _____
- X. _____
- Y. _____
- Z. _____
- AA. _____
- AB. _____
- AC. _____
- AD. _____
- AE. _____
- AF. _____
- AG. _____
- AH. _____
- AI. _____
- AJ. _____
- AK. _____
- AL. _____

CHECK POINT

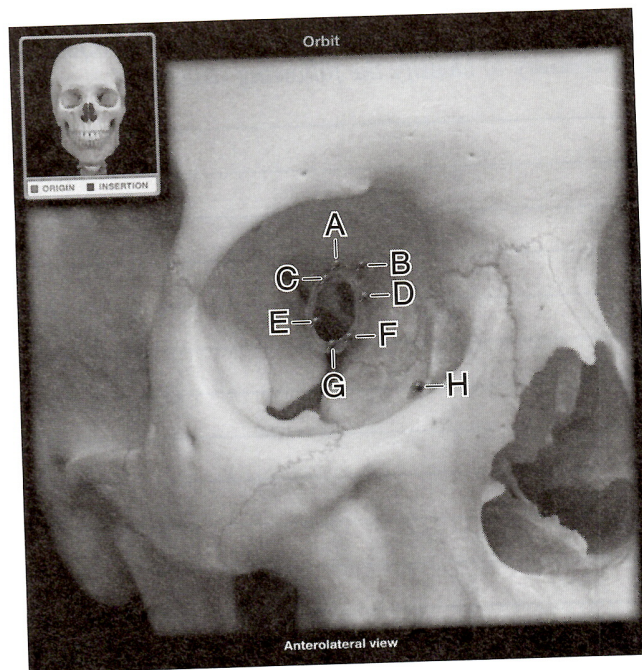
Skull—Cranial Cavity, Superior View

1. Describe the cribriform plate.
2. Name the structures that traverse through the jugular foramen.
3. Name the structure that passes through the foramen ovale.
4. Name the structure contained in the hypophyseal fossa.
5. What structure is transmitted by the foramen rotundum?

EXERCISE 5.18:



- Click **LAYER 1** in the **LAYER CONTROLS** window, and you will see the following image:



- Mouse-over the pins on the screen to find the information necessary to identify the following structures:

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____