LAB - THE BASIC PLAN

MATERIALS
ANATOMY
• Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY
• Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES
• To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. *Each student* will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity?

What membrane do you find attached to the small intestine?

What is attached to the inferior surface of the cecum?

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<thead>
<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
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<tbody>
<tr>
<td>Cranial</td>
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<tr>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ________________ to the patella (B).
b. Phalanges (D) are ________________ to the humerus bone (C)
c. Vertebrae (E) are ________________ to the manubrium (F)
d. Coccyx (G) is ________________ to the ilium (H)
e. Hyoid bone (I) is ________________ to the mandible (J)

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(A) Name each system and its principal function(s) below.

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<th>Temperature</th>
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<tr>
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Time Exercise Finished_______Time Return to Normal_______Difference_________

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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brain
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colon
esophagus
gallbladder
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liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _______________

What membrane do you find attached to the small intestine? _______________

What is attached to the inferior surface of the cecum? _______________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
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**PHYSIOLOGY**
(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the__________________________.
2) The dorsal cavity is subdivided into the__________________________.
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4) Define an organ:__________________________.
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LAB - THE BASIC PLAN

MATERIALS
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*Sagittal plane  *Anterior or ventral
*Transverse plane  *Posterior or dorsal
*Coronal plane  *Superior or cranial
*Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
**F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.**

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► **2.** The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________________

What membrane do you find attached to the small intestine? ________________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
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Time Exercise Finished Time Return to Normal Difference

Summary and Review
1) The three basics planes of reference are the

2) The dorsal cavity is subdivided into the

3) The ventral cavity is subdivided into the

4) Define an organ:

5) Define an organ system:
**LAB - THE BASIC PLAN**

**MATERIALS**

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- *Anterior or ventral*
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

- appendix
- brain
- bronchi
- colon
- esophagus
- gallbladder
- heart
- kidney
- liver
- lungs
- ovaries
- pancreas
- rectum
- small intestine
- spleen
- stomach
- spinal cord
- trachea
- urinary bladder
- uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________

What membrane do you find attached to the small intestine? ______________

What is attached to the inferior surface of the cecum? ______________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is __________________ to the patella (B).
b. Phalanges (D) are __________________ to the humerus bone (C)
c. Vertebrae (E) are __________________ to the manubrium (F)
d. Coccyx (G) is __________________ to the ilium (H)
e. Hyoid bone (I) is __________________ to the mandible (J)

**PHYSIOLOGY**
(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
<th>Principal function(s)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
(B) Complete Table 1-2

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>At rest</td>
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<td></td>
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<tr>
<td>Difference (if any)</td>
<td></td>
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</table>

Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basic planes of reference are the__________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:__________________________________________________.

5) Define an organ system:__________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ▶
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY ▶
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES ▶
- To apply the terms of reference to parts of the human body
- To identify the major body cavities
- To describe the general features of body structures
- To name the body systems and explain the principal function of each

Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane  *Anterior or ventral
*Transverse plane  *Posterior or dorsal
*Coronal plane  *Superior or cranial
*Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image1)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<tr>
<th>Body Cavity</th>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<th>Frontal</th>
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</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is _______________________ to the patella (B).
b. Phalanges (D) are _______________________ to the humerus bone (C)
c. Vertebrae (E) are _______________________ to the manubrium (F)
d. Coccyx (G) is _________________________ to the ilium (H)
e. Hyoid bone (I) is ________________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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<tr>
<td>Activity of Student</td>
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**Time Exercise Finished**_______**Time Return to Normal**_______**Difference**_______

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text    • Model of human torso
           • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
               • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
               • To identify the major body cavities
               • To describe the general features of body structures
               • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

- *Sagittal plane*
- *Transverse plane*
- *Coronal plane*
- *Midsaggital plane*
- *Anterior or ventral*
- *Posterior or dorsal*
- *Superior or cranial*
- *Inferior or caudal*

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

- appendix
- brain
- bronchi
- colon
- esophagus
- gallbladder
- heart
- kidney
- liver
- lungs
- ovaries
- pancreas
- rectum
- small intestine
- spleen
- stomach
- spinal cord
- trachea
- urinary bladder
- uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

►1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________________

What membrane do you find attached to the small intestine? ________________________________

What is attached to the inferior surface of the cecum? _________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<thead>
<tr>
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<th>Organs Found</th>
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<tbody>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is _____________ to the patella (B).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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</tbody>
</table>
**WLHS/A&P**

**(B) Complete Table 1-2**

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>At rest</td>
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<tr>
<td>After exercise</td>
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<tr>
<td>Difference (if any)</td>
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<td></td>
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</tr>
</tbody>
</table>

**Time Exercise Finished_______ Time Return to Normal_______ Difference_______**

**Summary and Review**
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

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4) Define an organ:______________________________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ➤  • Reference text
               • Model of human torso
               • Anatomical charts of the human body

PHYSIOLOGY ➤  • Stopwatch or clock with second hand
                 • Clinical thermometers (sterilize after use)

OBJECTIVES ➤  • To apply the terms of reference to parts of the human body
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*Sagittal plane
*Transverse plane
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*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain     pancreas
bronchi   rectum
colon     small intestine
esophagus spleen
gallbladder stomach
heart     spinal cord
kidney    trachea
liver     urinary bladder
lungs     uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _______________________

What membrane do you find attached to the small intestine? ______________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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Time Exercise Finished_______Time Return to Normal_______Difference________

**Summary and Review**
1) The three basics planes of reference are the______________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
4) Define an organ:______________________________________________________.
5) Define an organ system:_____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

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gallbladder  stomach
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lungs  uterus

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**PHYSIOLOGY**
(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. *Each student* will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________________

What membrane do you find attached to the small intestine? _____________________________

What is attached to the inferior surface of the cecum? _____________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ________________ to the patella (B).
b. Phalanges (D) are ________________ to the humerus bone (C).
c. Vertebrae (E) are ________________ to the manubrium (F).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Summary and Review
1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

3) The ventral cavity is subdivided into the ________________________________.

4) Define an organ: ____________________________________________________________.

5) Define an organ system: ___________________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text • Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
• To identify the major body cavities
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Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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a. Parietal bone (A) is ______________________ to the patella (B).
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(A) Name each system and its principal function(s) below.

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**Summary and Review**

1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

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4) Define an organ: ________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
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PHYSIOLOGY ► • Stopwatch or clock with second hand
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OBJECTIVES ► • To apply the terms of reference to parts of the human body
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*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? _________________________

What is attached to the inferior surface of the cecum? _______________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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1) The three basics planes of reference are the_______________________________.

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LAB - THE BASIC PLAN

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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________________

What membrane do you find attached to the small intestine? _______________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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</tbody>
</table>

Time Exercise Finished_______ Time Return to Normal ________ Difference ________

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________.

5) Define an organ system:______________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________________

What is attached to the inferior surface of the cecum? ____________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

<table>
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<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<th>Sagittal</th>
<th>Frontal</th>
<th>Transverse</th>
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</tbody>
</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is ________________________ to the ilium (H)
e. Hyoid bone (I) is ______________________ to the mandible (J)

PHYSIOLOGY

(A) Name each system and its principal function(s) below.

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<th>System</th>
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<th>Activity of Student</th>
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<th>Respiratory Rate</th>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
4) Define an organ:______________________________________________________.
5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? 

What membrane do you find attached to the small intestine? 

What is attached to the inferior surface of the cecum? 

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<tr>
<th>Body Cavity</th>
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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
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e. Hyoid bone (I) is ______________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______Time Return to Normal_______Difference________

**Summary and Review**

1) The three basics planes of reference are the______________________________.

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LAB - THE BASIC PLAN

MATERIALS
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*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _________________

What is attached to the inferior surface of the cecum? _________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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Time Exercise Finished ________ Time Return to Normal ________ Difference ________

Summary and Review
1) The three basics planes of reference are the __________________________._
2) The dorsal cavity is subdivided into the __________________________._
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4) Define an organ: ____________________________________________.
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LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso
► • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane  *Anterior or ventral
*Transverse plane  *Posterior or dorsal
*Coronal plane  *Superior or cranial
*Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? ________________________

What is attached to the inferior surface of the cecum? _______________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<th>Transverse</th>
</tr>
</thead>
</table>

(F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ________________ to the patella (B).
b. Phalanges (D) are ________________ to the humerus bone (C)
c. Vertebrae (E) are ________________ to the manubrium (F)
d. Coccyx (G) is ________________ to the ilium (H)
e. Hyoid bone (I) is ________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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<th>System</th>
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Time Exercise Finished Time Return to Normal Difference

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane
* Transverse plane
* Coronal plane
* Midsaggital plane

* Anterior or ventral
* Posterior or dorsal
* Superior or cranial
* Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix = ovaries
brain = pancreas
bronchi = rectum
colon = small intestine
esophagus = spleen
gallbladder = stomach
heart = spinal cord
kidney = trachea
liver = urinary bladder
lungs = uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

►1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.
What muscle separates the thoracic cavity from the abdominal cavity? 
What membrane do you find attached to the small intestine? 
What is attached to the inferior surface of the cecum?

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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a. Parietal bone (A) is ______________________ to the patella (B).

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c. Vertebrae (E) are ______________________ to the manubrium (F).

d. Coccyx (G) is _________________________ to the ilium (H).

e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text                      • Model of human torso
            • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
            • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
               • To identify the major body cavities
               • To describe the general features of body structures
               • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix      ovaries
brain         pancreas
bronchi       rectum
colon         small intestine
esophagus     spleen
gallbladder   stomach
heart         spinal cord
kidney        trachea
liver         urinary bladder
lungs         uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY
(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

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2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? _________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).

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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ◄
• Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ◄
• Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ◄
• To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures

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*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ____________________

What membrane do you find attached to the small intestine? __________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is __________________ to the patella (B).
b. Phalanges (D) are __________________ to the humerus bone (C).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

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4) Define an organ:______________________________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ▶
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY ▶
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES ▶
- To apply the terms of reference to parts of the human body
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- To describe the general features of body structures
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Procedures

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*Sagittal plane    *Anterior or ventral
*Transverse plane    *Posterior or dorsal
*Coronal plane    *Superior or cranial
*Midsaggital plane    *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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esophagus    spleen
gallbladder    stomach
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kidney    trachea
liver    urinary bladder
lungs    uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ____________________

What membrane do you find attached to the small intestine? ___________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

   a. Parietal bone (A) is __________________ to the patella (B).
   b. Phalanges (D) are __________________ to the humerus bone (C)
   c. Vertebrae (E) are __________________ to the manubrium (F)
   d. Coccyx (G) is __________________ to the ilium (H)
   e. Hyoid bone (I) is __________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the__________________________.

2) The dorsal cavity is subdivided into the__________________________.

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4) Define an organ:______________________________________________.

5) Define an organ system:________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ►
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY ►
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES ►
- To apply the terms of reference to parts of the human body
- To identify the major body cavities
- To describe the general features of body structures
- To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY
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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _______________________

What membrane do you find attached to the small intestine? _______________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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Time Exercise Finished_______Time Return to Normal_______Difference_______

**Summary and Review**
1) The three basics planes of reference are the_____________________________.

2) The dorsal cavity is subdivided into the_______________________________.

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4) Define an organ:_____________________________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
• Model of human torso
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OBJECTIVES ► • To apply the terms of reference to parts of the human body
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Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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* Sagittal plane
* Transverse plane
* Coronal plane
* Midsaggital plane

* Anterior or ventral
* Posterior or dorsal
* Superior or cranial
* Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? __________________________

What membrane do you find attached to the small intestine? _________________________________

What is attached to the inferior surface of the cecum? ________________________________

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Summary and Review
1) The three basics planes of reference are the______________________________.

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LAB - THE BASIC PLAN

MATERIALS
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appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _______________________

What is attached to the inferior surface of the cecum? ___________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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</tr>
</thead>
<tbody>
<tr>
<td>At rest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Time Exercise Finished**

Time Return to Normal

**Difference**

Summary and Review
1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

3) The ventral cavity is subdivided into the ________________________________.

4) Define an organ: ________________________________.

5) Define an organ system: ________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text
       • Model of human torso
       • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
               • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
               • To identify the major body cavities
               • To describe the general features of body structures
               • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix 
brain 
bronchi 
colon 
esophagus 
gallbladder 
heart 
kidney 
liver 
lungs 

ovaries 
pancreas 
rectum 
small intestine 
spleen 

stomach 
spinal cord 
trachea 

urinary bladder 
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

►1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________________

What membrane do you find attached to the small intestine? ______________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

<table>
<thead>
<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranial</td>
<td></td>
</tr>
<tr>
<td>Vertebral</td>
<td></td>
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<tr>
<td>Thoracic</td>
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<tr>
<td>Pelvic</td>
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</table>
(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<tr>
<th>Sagittal</th>
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</tr>
</tbody>
</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is ________________________ to the ilium (H)
e. Hyoid bone (I) is ______________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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<th>Activity of Student</th>
<th>Temperature</th>
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</tr>
<tr>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Time Exercise Finished________Time Return to Normal________Difference________

Summary and Review
1) The three basic planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso
          • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
              • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
               • To identify the major body cavities
               • To describe the general features of body structures
               • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane  * Anterior or ventral
* Transverse plane  * Posterior or dorsal
* Coronal plane  * Superior or cranial
* Midsaggital plane  * Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? __________________________

What membrane do you find attached to the small intestine? __________________________

What is attached to the inferior surface of the cecum? __________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<th>Organs Found</th>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<th>Sagittal</th>
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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).

b. Phalanges (D) are ______________________ to the humerus bone (C).

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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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<td></td>
<td></td>
</tr>
<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time Exercise Finished_______Time Return to Normal_______Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
4) Define an organ:______________________________________________________.
5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ►
• Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ►
• Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ►
• To apply the terms of reference to parts of the human body
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• To describe the general features of body structures
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*Sagittal plane  *Anterior or ventral
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*Coronal plane  *Superior or cranial
*Midsaggital plane   *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix    ovaries
brain    pancreas
bronchi    rectum
colon    small intestine
esophagus    spleen
gallbladder    stomach
heart    spinal cord
kidney    trachea
liver    urinary bladder
lungs    uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _______________________

What membrane do you find attached to the small intestine? ________________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

   a. Parietal bone (A) is ____________________ to the patella (B).
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**PHYSIOLOGY**

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Time Exercise Finished_______ Time Return to Normal_______ Difference__________

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

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5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

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appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? __________________________

What membrane do you find attached to the small intestine? _________________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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b. Phalanges (D) are _____________ to the humerus bone (C)
c. Vertebrae (E) are _____________ to the manubrium (F)
d. Coccyx (G) is _____________ to the ilium (H)
e. Hyoid bone (I) is _____________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
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<tbody>
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(B) Complete Table 1-2

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<th>Activity of Student</th>
<th>Temperature</th>
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Time Exercise Finished________Time Return to Normal_______Difference________

**Summary and Review**

1) The three basics planes of reference are the__________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:____________________________________________________.

5) Define an organ system:____________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
  • Model of human torso
  • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
  • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
  • To identify the major body cavities
  • To describe the general features of body structures
  • To name the body systems and explain the principal function of each

Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY
(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. On the Data Sheet write the name of each system and its major function.

(B) To understand how the activities of the various systems function together, students will need to work in pairs. Each student will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ____________________

What membrane do you find attached to the small intestine? ____________________

What is attached to the inferior surface of the cecum? ____________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C).
c. Vertebrae (E) are ______________________ to the manubrium (F).
d. Coccyx (G) is _________________________ to the ilium (H).
e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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**Time Exercise Finished_______ Time Return to Normal_______ Difference_______**

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
  • Model of human torso
  • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
  • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
  • To identify the major body cavities
  • To describe the general features of body structures
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Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane  *Anterior or ventral
*Transverse plane  *Posterior or dorsal
*Coronal plane  *Superior or cranial
*Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. Each student will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.
What muscle separates the thoracic cavity from the abdominal cavity? ________________________
What membrane do you find attached to the small intestine? ________________________________
What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________.

5) Define an organ system:______________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ►
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY ►
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES ►
- To apply the terms of reference to parts of the human body
- To identify the major body cavities
- To describe the general features of body structures
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Procedures

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ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

- *Sagittal plane
- *Transverse plane
- *Coronal plane
- *Midsaggital plane

- *Anterior or ventral
- *Posterior or dorsal
- *Superior or cranial
- *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix, ovaries
brain, pancreas
bronchi, rectum
colon, small intestine
esophagus, spleen
gallbladder, stomach
heart, spinal cord
kidney, trachea
liver, urinary bladder
lungs

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _________________

What is attached to the inferior surface of the cecum? _________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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a. Parietal bone (A) is _______________________ to the patella (B).
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Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

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4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ➤ • Reference text
         • Model of human torso
         • Anatomical charts of the human body

PHYSIOLOGY ➤ • Stopwatch or clock with second hand
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OBJECTIVES ➤ • To apply the terms of reference to parts of the human body
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PROCEDURES
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* Coronal plane
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* Anterior or ventral
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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brain          pancreas
bronchi        rectum
colon          small intestine
esophagus      spleen
gallbladder    stomach
heart          spinal cord
kidney         trachea
liver          urinary bladder
lungs          uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

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►1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________________

What is attached to the inferior surface of the cecum? _____________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

    a. Parietal bone (A) is ______________________ to the patella (B).
    b. Phalanges (D) are ______________________ to the humerus bone (C).
    c. Vertebrae (E) are ______________________ to the manubrium (F).
    d. Coccyx (G) is ______________________ to the ilium (H).
    e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text
   • Model of human torso
   • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
   • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
   • To identify the major body cavities
   • To describe the general features of body structures
   • To name the body systems and explain the principal function of each

Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane
  * Transverse plane
  * Coronal plane
  * Midsaggital plane

* Anterior or ventral
  * Posterior or dorsal
  * Superior or cranial
  * Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

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| ►1. ▶ | Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2. |

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ____________________

What membrane do you find attached to the small intestine? _____________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C).
c. Vertebrae (E) are ______________________ to the manubrium (F).
d. Coccyx (G) is ________________________ to the ilium (H).
e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______Time Return to Normal_______Difference________

Summary and Review
1) The three basics planes of reference are the______________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
4) Define an organ:______________________________________________________.
5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

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2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? __________________

What membrane do you find attached to the small intestine? __________________

What is attached to the inferior surface of the cecum? __________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

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LAB - THE BASIC PLAN

MATERIALS
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appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ___________________ to the patella (B).
b. Phalanges (D) are ___________________ to the humerus bone (C)
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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<td></td>
<td></td>
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</tbody>
</table>
(B) Complete Table 1-2

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<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
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Time Exercise Finished_______ Time Return to Normal_______ Difference________

Summary and Review
1) The three basics planes of reference are the______________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
4) Define an organ:________________________________________________________.
5) Define an organ system:__________________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane
*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? 

What membrane do you find attached to the small intestine? 

What is attached to the inferior surface of the cecum? 

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is _____________ to the patella (B).
b. Phalanges (D) are ________________ to the humerus bone (C)
c. Vertebrae (E) are ________________ to the manubrium (F)
d. Coccyx (G) is _________________ to the ilium (H)
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PHYSIOLOGY
(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference________

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1) The three basics planes of reference are the______________________________.

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4) Define an organ:______________________________________________________.

5) Define an organ system:_____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text
   • Model of human torso
   • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
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OBJECTIVES ► • To apply the terms of reference to parts of the human body
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Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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*Anterior or ventral
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
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(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

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(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? __________________________

What membrane do you find attached to the small intestine? _________________________________

What is attached to the inferior surface of the cecum? _________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is ______________________ to the ilium (H)
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished ______ Time Return to Normal ______ Difference ______

Summary and Review
1) The three basics planes of reference are the ________________________________.
2) The dorsal cavity is subdivided into the ________________________________.
3) The ventral cavity is subdivided into the ________________________________.
4) Define an organ: ________________________________.
5) Define an organ system: ________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES
- To apply the terms of reference to parts of the human body
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- To describe the general features of body structures
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*Sagittal plane
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

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(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Plan of orientation](image1.png)

**Figure 1-1. Planes of orientation**

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______Time Return to Normal_______Difference________

**Summary and Review**

1) The three basics planes of reference are the__________________________.

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LAB - THE BASIC PLAN

MATERIALS

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*Sagittal plane
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*Coronal plane
*Midsaggital plane

*Bicoronal plane
*Figure of 8 plane
*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

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gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

<table>
<thead>
<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranial</td>
<td></td>
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<tr>
<td>Vertebral</td>
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<td>Abdominal</td>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<tr>
<th>Sagittal</th>
<th>Frontal</th>
<th>Transverse</th>
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<tbody>
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</tbody>
</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C).
c. Vertebrae (E) are ______________________ to the manubrium (F).
d. Coccyx (G) is ________________________ to the ilium (H).
e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
<th>Principal function(s)</th>
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</table>
(B) Complete Table 1-2

<table>
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<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
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<tr>
<td>After exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time Exercise Finished_______Time Return to Normal_______Difference________

Summary and Review
1) The three basics planes of reference are the____________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:__________________________________________________.

5) Define an organ system:____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
• To identify the major body cavities
• To describe the general features of body structures
• To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix   ovaries
brain      pancreas
bronchi    rectum
colon      small intestine
esophagus  spleen
gallbladder stomach
heart      spinal cord
kidney     trachea
liver      urinary bladder
lungs      uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. Each student will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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a. Parietal bone (A) is ______________________ to the patella (B).
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(A) Name each system and its principal function(s) below.

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Summary and Review
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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ►
  • Reference text
  • Model of human torso
  • Anatomical charts of the human body

PHYSIOLOGY ►
  • Stopwatch or clock with second hand
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OBJECTIVES ►
  • To apply the terms of reference to parts of the human body
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*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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PHYSIOLOGY

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________________

What is attached to the inferior surface of the cecum? ____________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(A) Name each system and its principal function(s) below.

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**Time Exercise Finished** ______  **Time Return to Normal** ______  **Difference** ______

### Summary and Review

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________.

5) Define an organ system:______________________________. 
LAB - THE BASIC PLAN

MATERIALS
ANATOMY • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

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(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image1.png)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _________________

What is attached to the inferior surface of the cecum? _________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

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4) Define an organ:______________________________________________________.

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LAB - THE BASIC PLAN

MATERIALS

ANATOMY ►
- Reference text
- Model of human torso
- Anatomical charts of the human body

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- Stopwatch or clock with second hand
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- To name the body systems and explain the principal function of each

Procedures

Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY

(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane  * Anterior or ventral
* Transverse plane  * Posterior or dorsal
* Coronal plane  * Superior or cranial
* Midsaggital plane  * Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix    ovaries
brain      pancreas
bronchi     rectum
colon      small intestine
esophagus    spleen
gallbladder    stomach
heart      spinal cord
kidney     trachea
liver      urinary bladder
lungs      uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<th>Sagittal</th>
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</table>

F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are _______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is _________________________ to the ilium (H)
e. Hyoid bone (I) is ______________________ to the mandible (J)

PHYSIOLOGY

(A) Name each system and its principal function(s) below.

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</table>

(A) Name each system and its principal function(s) below.
(B) Complete Table 1-2

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
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Time Exercise Finished _______ Time Return to Normal _______ Difference _______

Summary and Review
1) The three basics planes of reference are the ________________________________ .
2) The dorsal cavity is subdivided into the ________________________________ .
3) The ventral cavity is subdivided into the ________________________________ .
4) Define an organ: ________________________________ .
5) Define an organ system: ________________________________ .
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ► • Reference text • Model of human torso
  • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
  • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
  • To identify the major body cavities
  • To describe the general features of body structures
  • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane  * Anterior or ventral
  * Transverse plane  * Posterior or dorsal
  * Coronal plane  * Superior or cranial
  * Midsaggital plane  * Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _________________

What is attached to the inferior surface of the cecum? _________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
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d. Coccyx (G) is ________________________ to the ilium (H)
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PHYSIOLOGY

(A) Name each system and its principal function(s) below.

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Time Exercise Finished________ Time Return to Normal________ Difference________

Summary and Review
1) The three basic planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text  • Model of human torso
   • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand
   • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body
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body is an assembly of many parts organized to function as a whole. To identify a specific part of the
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parts or between a part of the body and a system or function can be done more clearly.

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the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place
the term next to the proper reference position.

*Sagittal plane  *Anterior or ventral
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*Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the
position, size, shape, and specific features of each organ in the list below. Replace all the parts within
the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal,
frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using
descriptions like which way the macaroni is facing in each plane may help to compare each of the
planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.
What muscle separates the thoracic cavity from the abdominal cavity? _________________
What membrane do you find attached to the small intestine? _________________________
What is attached to the inferior surface of the cecum? _______________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________ to the patella (B).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY
- Reference text
- Model of human torso
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PHYSIOLOGY
- Stopwatch or clock with second hand
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OBJECTIVES
- To apply the terms of reference to parts of the human body
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colon  small intestine
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lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is _______________ to the patella (B).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
<th>Principal function(s)</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
(B) Complete Table 1-2

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
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<td>At rest</td>
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<tr>
<td>After exercise</td>
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<tr>
<td>Difference (if any)</td>
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</tr>
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</table>

Time Exercise Finished_______ Time Return to Normal_______ Difference________

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ: ____________________________________________________.

5) Define an organ system: ____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text  
  • Model of human torso  
  • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand  
  • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body  
  • To identify the major body cavities  
  • To describe the general features of body structures  
  • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane  
*Transverse plane  
*Coronal plane  
*Midsaggital plane  

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  
brain  
bronchi  
colon  
esophagus  
gallbladder  
heart  
kidney  
liver  
lungs  

ovaries  
pancreas  
rectum  
small intestine  
spleen  
stomach  
spinal cord  
trachea  
urinary bladder  
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________

What membrane do you find attached to the small intestine? ______________

What is attached to the inferior surface of the cecum? ______________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

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<th>Sagittal</th>
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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

   a. Parietal bone (A) is ______________________ to the patella (B).
   b. Phalanges (D) are ______________________ to the humerus bone (C).
   c. Vertebrae (E) are ______________________ to the manubrium (F).
   d. Coccyx (G) is ________________________ to the ilium (H).
   e. Hyoid bone (I) is ______________________ to the mandible (J).

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished _______ Time Return to Normal _______ Difference _______

Summary and Review
1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

3) The ventral cavity is subdivided into the ________________________________.

4) Define an organ: ____________________________________________________.

5) Define an organ system: ____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text  • Model of human torso  • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand  • Clinical thermometers (sterilize after use)

OBJECTIVES ►  • To apply the terms of reference to parts of the human body  • To identify the major body cavities  • To describe the general features of body structures  • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

* Sagittal plane * Anterior or ventral
* Transverse plane * Posterior or dorsal
* Coronal plane * Superior or cranial
* Midsaggital plane * Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix  ovaries
brain  pancreas
bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

► 1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

► 2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? _________________

What membrane do you find attached to the small intestine? _________________

What is attached to the inferior surface of the cecum? _________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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(F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished

Time Return to Normal

Difference

Summary and Review

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS

ANATOMY ►
- Reference text
- Model of human torso
- Anatomical charts of the human body

PHYSIOLOGY ►
- Stopwatch or clock with second hand
- Clinical thermometers (sterilize after use)

OBJECTIVES ►
- To apply the terms of reference to parts of the human body
- To identify the major body cavities
- To describe the general features of body structures
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Procedures

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*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs

ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

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ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image)

![Figure 1-2. Body cavities](image)

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? 

What membrane do you find attached to the small intestine? 

What is attached to the inferior surface of the cecum? 

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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   a. Parietal bone (A) is ______________________ to the patella (B).
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Time Exercise Finished_______Time Return to Normal_______Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.
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LAB - THE BASIC PLAN

MATERIALS
ANATOMY ►
- Reference text
- Model of human torso
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PHYSIOLOGY ►
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OBJECTIVES ►
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- *Sagittal plane
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- *Coronal plane
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- "Superior or cranial"
- "Inferior or caudal"

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix    ovaries
brain       pancreas
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colon       small intestine
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gallbladder stomach
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kidney      trachea
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lungs       uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

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(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

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(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________

What membrane do you find attached to the small intestine? _______________________

What is attached to the inferior surface of the cecum? _____________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

   a. Parietal bone (A) is _________________ to the patella (B).
   b. Phalanges (D) are ___________________ to the humerus bone (C)
   c. Vertebrae (E) are ___________________ to the manubrium (F)
   d. Coccyx (G) is ________________________ to the ilium (H)
   e. Hyoid bone (I) is ____________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______ Time Return to Normal_______ Difference________

Summary and Review
1) The three basics planes of reference are the________________________.

2) The dorsal cavity is subdivided into the________________________.

3) The ventral cavity is subdivided into the________________________.

4) Define an organ:________________________________________________.

5) Define an organ system:_________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix
brain
bronchi
colon
esophagus
gallbladder
heart
kidney
liver
lungs
ovaries
pancreas
rectum
small intestine
spleen
stomach
spinal cord
trachea
urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

PHYSIOLOGY

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

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2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? _________________________

What is attached to the inferior surface of the cecum? _______________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ________________ to the patella (B).
b. Phalanges (D) are ________________ to the humerus bone (C)
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished ______ Time Return to Normal ______ Difference ______

Summary and Review
1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

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4) Define an organ: ____________________________________________.

5) Define an organ system: ________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

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Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane       *Anterior or ventral
*Transverse plane    *Posterior or dorsal
*Coronal plane       *Superior or cranial
*Midsaggital plane   *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.
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kidney
liver
lungs
ovaries
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rectum
small intestine
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urinary bladder
uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

(B) Observation of the human torso model.
What muscle separates the thoracic cavity from the abdominal cavity? ________________
What membrane do you find attached to the small intestine? ________________
What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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Time Exercise Finished _______ Time Return to Normal _______ Difference _______

Summary and Review
1) The three basics planes of reference are the ________________________________.

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LAB - THE BASIC PLAN

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appendix, ovaries
brain, pancreas
bronchi, rectum
colon, small intestine
esophagus, spleen
gallbladder, stomach
heart, spinal cord
kidney, trachea
liver, urinary bladder
lungs, uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

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Figure 1-1. Planes of orientation

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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Time Exercise Finished_______ Time Return to Normal_______ Difference_______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:____________________________________________________.

5) Define an organ system:____________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ►  • Reference text  • Model of human torso
  • Anatomical charts of the human body

PHYSIOLOGY ►  • Stopwatch or clock with second hand
  • Clinical thermometers (sterilize after use)

OBJECTIVES ►  • To apply the terms of reference to parts of the human body
  • To identify the major body cavities
  • To describe the general features of body structures
  • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

ANATOMY
(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

  *Sagittal plane  *Anterior or ventral
  *Transverse plane  *Posterior or dorsal
  *Coronal plane  *Superior or cranial
  *Midsaggital plane  *Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

  appendix  ovaries
  brain  pancreas
  bronchi  rectum
  colon  small intestine
  esophagus  spleen
  gallbladder  stomach
  heart  spinal cord
  kidney  trachea
  liver  urinary bladder
  lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. *On the Data Sheet write the name of each system and its major function.*

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

Figure 1-1. Planes of orientation

Figure 1-2. Body cavities

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

<table>
<thead>
<tr>
<th>Body Cavity</th>
<th>Organs Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranial</td>
<td></td>
</tr>
<tr>
<td>Vertebral</td>
<td></td>
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<tr>
<td>Thoracic</td>
<td></td>
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<tr>
<td>Abdominal</td>
<td></td>
</tr>
<tr>
<td>Pelvic</td>
<td></td>
</tr>
</tbody>
</table>
(E) Draw the gelatin-macaroni mold cut in the 3 planes (sagittal, frontal, and transverse) in the space below.

<table>
<thead>
<tr>
<th>Sagittal</th>
<th>Frontal</th>
<th>Transverse</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

(F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is __________________________ to the ilium (H)
e. Hyoid bone (I) is ________________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
<th>Principal function(s)</th>
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<tbody>
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</tr>
</tbody>
</table>

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(B) Complete Table 1-2

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>At rest</td>
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<tr>
<td>After exercise</td>
<td></td>
<td></td>
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<tr>
<td>Difference (if any)</td>
<td></td>
<td></td>
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</tr>
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</table>

Time Exercise Finished_______ Time Return to Normal_______ Difference_______

**Summary and Review**

1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ► • Reference text • Model of human torso • Anatomical charts of the human body

PHYSIOLOGY ► • Stopwatch or clock with second hand • Clinical thermometers (sterilize after use)

OBJECTIVES ► • To apply the terms of reference to parts of the human body • To identify the major body cavities • To describe the general features of body structures • To name the body systems and explain the principal function of each

Procedures
Before studying the anatomy and physiology of the human body, it is necessary to understand that the body is an assembly of many parts organized to function as a whole. To identify a specific part of the body requires a knowledge of anatomical terms. In turn, defining relationships between the different body parts or between a part of the body and a system or function can be done more clearly.

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(A) To recognize the planes of orientation and bodily direction based on the anatomical position, locate the various planes and directions on Figure 1-1 of the Data Sheet using the following list of terms. Place the term next to the proper reference position.

*Sagittal plane
*Transverse plane
*Coronal plane
*Midsaggital plane

*Anterior or ventral
*Posterior or dorsal
*Superior or cranial
*Inferior or caudal

(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix ovaries
brain pancreas
bronchi rectum
colon small intestine
esophagus spleen
gallbladder stomach
heart spinal cord
kidney trachea
liver urinary bladder
lungs uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
F) Go to the model of the skeleton in the front of the room. On the skeleton, you will find letters A-J which identify the various bones in the body. The position of each of the bones relative to the other bones using orientation and directional terms found on page 15 in your book. Record your answers on the answer sheet.

**PHYSIOLOGY**

(A) Using the chart on anatomy, view the organization and structures of the human body. Refer to the textbook for reference. Locate the different parts of each of the body systems and explain their individual functions. **On the Data Sheet write the name of each system and its major function.**

(B) To understand how the activities of the various systems function together, students will need to work in pairs. **Each student** will be responsible for conducting several operations. While one student acts as the subject for the experiment, the other student observes certain body reactions and also records the results. Below are the steps to follow for this experiment.

1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ______________________

What membrane do you find attached to the small intestine? _______________________________

What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

<table>
<thead>
<tr>
<th>Body Cavity</th>
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<tbody>
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<th>Sagittal</th>
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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
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**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

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Time Exercise Finished_______Time Return to Normal_______Difference________

Summary and Review
1) The three basics planes of reference are the__________________________.
2) The dorsal cavity is subdivided into the______________________________.
3) The ventral cavity is subdivided into the______________________________.
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LAB - THE BASIC PLAN

MATERIALS
ANATOMY ►
- Reference text
- Model of human torso
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PHYSIOLOGY ►
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OBJECTIVES ►
- To apply the terms of reference to parts of the human body
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bronchi  rectum
colon  small intestine
esophagus  spleen
gallbladder  stomach
heart  spinal cord
kidney  trachea
liver  urinary bladder
lungs  uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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ANATOMY
(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

![Figure 1-1. Planes of orientation](image1)

![Figure 1-2. Body cavities](image2)

(B) Observation of the human torso model.
What muscle separates the thoracic cavity from the abdominal cavity? ________________
What membrane do you find attached to the small intestine? ________________________
What is attached to the inferior surface of the cecum? ________________________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
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c. Vertebrae (E) are ______________________ to the manubrium (F)
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<tr>
<td>Difference (if any)</td>
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</tbody>
</table>

Time Exercise Finished _______ Time Return to Normal _______ Difference _______

Summary and Review
1) The three basics planes of reference are the ________________________________.

2) The dorsal cavity is subdivided into the ________________________________.

3) The ventral cavity is subdivided into the ________________________________.

4) Define an organ: ________________________________.

5) Define an organ system: ________________________________.
LAB - THE BASIC PLAN

MATERIALS
ANATOMY ►
• Reference text
• Model of human torso
• Anatomical charts of the human body

PHYSIOLOGY ►
• Stopwatch or clock with second hand
• Clinical thermometers (sterilize after use)

OBJECTIVES ►
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*Sagittal plane    *Anterior or ventral
*Transverse plane    *Posterior or dorsal
*Coronal plane    *Superior or cranial
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(B) Remove all of the organs from the human torso model. Identify each of the cavities. Observe the position, size, shape, and specific features of each organ in the list below. Replace all the parts within the torso at the end of the exercise. Answer questions 1-3 on the Data Sheet.

appendix    ovaries
brain    pancreas
bronchi    rectum
colon    small intestine
esophagus    spleen
gallbladder    stomach
heart    spinal cord
kidney    trachea
liver    urinary bladder
lungs    uterus

(C) Refer to Figure 1-2 of the Data Sheet. Name each of the cavities indicated on the diagram.

(D) Find Table 1-1 on the Data Sheet. List the organs found within each of the body cavities.

(E) Obtain a gelatin-macaroni mold and plastic knife. Cut the gelatin mold into the 3 planes (sagittal, frontal, and transverse). Draw what you see in the space provided on the answer sheet. Using descriptions like which way the macaroni is facing in each plane may help to compare each of the planes.
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►1. Use a thermometer to take the temperature of the subject by placing the thermometer underneath the armpit of the subject as close to the skin as possible. At the same time, using a stopwatch or second hand watch, record the pulse rate and respiratory rate for a 60-second period. Record the results on data sheet in Table 1-2.

►2. The next step requires the subject to perform a physical exercise. While the subject is jumping in place or quickly stepping up and down, the other student clocks the subject for 95 seconds. Once the exercise is completed, record the exercise time, temperature, pulse rate, and respiratory rate of the subject. Note how long it takes for pulse rate and respiratory rate to return to the resting state.
ANATOMY

(A) Applying the terms of reference (see list on lab instruction page), label Figure 1-1.

(B) Observation of the human torso model.

What muscle separates the thoracic cavity from the abdominal cavity? ________________

What membrane do you find attached to the small intestine? ________________

What is attached to the inferior surface of the cecum? ________________

(C) Label Figure 1-2 (above) with the names of the body cavities.

(D) Complete Table 1-1 (below).

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F) Identify the position of each of the bones on the skeleton using the orientation and directional terms.

a. Parietal bone (A) is ______________________ to the patella (B).
b. Phalanges (D) are ______________________ to the humerus bone (C)
c. Vertebrae (E) are ______________________ to the manubrium (F)
d. Coccyx (G) is ________________________ to the ilium (H)
e. Hyoid bone (I) is ______________________ to the mandible (J)

**PHYSIOLOGY**

(A) Name each system and its principal function(s) below.

<table>
<thead>
<tr>
<th>System</th>
<th>Principal function(s)</th>
</tr>
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<tbody>
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</tbody>
</table>
(B) Complete Table 1-2

<table>
<thead>
<tr>
<th>Activity of Student</th>
<th>Temperature</th>
<th>Pulse Rate</th>
<th>Respiratory Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>At rest</td>
<td></td>
<td></td>
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<tr>
<td>After exercise</td>
<td></td>
<td></td>
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<tr>
<td>Difference (if any)</td>
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</tr>
</tbody>
</table>

Time Exercise Finished _______ Time Return to Normal _______ Difference _______

Summary and Review
1) The three basics planes of reference are the______________________________.

2) The dorsal cavity is subdivided into the______________________________.

3) The ventral cavity is subdivided into the______________________________.

4) Define an organ:______________________________________________________.

5) Define an organ system:______________________________________________.