Dear Future A&P Student,

For many years I have been thrilled to teach AP Biology (my favorite class in high school) and now I have the amazing opportunity to create and teach a new course at Syosset, Premed Anatomy & Physiology.

Please note that this college-level course, while engaging and interactive, is also very rigorous and challenging. We will cover the extensive content in depth and at a rapid pace. This will require you to organize your time effectively and work independently in order to prepare for our lessons and unit exams.

You are expected to complete our summer assignment, introducing you to the fundamentals of anatomy and physiology, by the second day of school. As you watch several short videos, you will take notes. (To get you started, I recommend one of two modes of note-taking: on a tablet or on looseleaf paper enclosed in a binder). Then you will complete a review assignment on the material that you learned. Expect to be quizzed by the end of your first week of class.

Even though I look forward to all the delights of summer, I cannot wait to meet you (if I don’t already know you) and teach you all 206 bones, how muscles contract, the ways your central nervous system are impacted by physical trauma, and so much more! We will learn through case studies, mnemonics, repetition, games, simulations, labs, and dissections. I hope by the end of the class, you are fluent in anatomy and physiology and in awe of the intricacies of your body!

My best,
Carisa Steinberg
csteinberg@syossetschools.org
1. As you watch the following introductory videos, take detailed notes in color
   - Anatomical Terms
   - Abdominal Quadrants, Regions & Planes
   - Body Cavities

2. After you have completed the above, work on the attached assignment, entitled Anatomical Regions. Use color where directed.

   ✴ If you are looking for more, I recommend reading the following books (both are fantastic and informative):
     - The Body: A Guide for Occupants - Bill Bryson
     - The Story of the Human Body: Evolution, Health & Disease - Daniel Lieberman

   ✴ If you are looking for more, I recommend watching the following:
     - The World Within (2021) - Netflix
ANATOMICAL REGIONS

Activity

Select different colors for the dorsal and ventral body cavities and color the coding circles below.

- Complete the following in Figure 1:
  → Color the corresponding cavities in figure A.
  → Label the body cavity subdivisions that have a leader line in figure A.
  → Label each of the abdominal regions indicated by a leader line in figure B.

○ Dorsal body cavity
○ Ventral body cavity

Figure 1. Lateral and anterior view of body cavities.

1. __________________________
2. __________________________
3. __________________________
4. __________________________
5. __________________________
6. __________________________

A

B
From the key choices, select the body cavities and the cavity subdivision where the following surgical procedures would occur.

- Insert the correct letter(s) or term(s) in the answer blanks. *Items may have more than one answer.*

**Key Choices**

A. Abdominal  
B. Cranial  
C. Dorsal  
D. Pelvic  
E. Spinal  
F. Thoracic  
G. Ventral

________________________ 1. Removal of the uterus, or womb

________________________ 2. Coronary bypass surgery (heart surgery)

________________________ 3. Removal of a serious brain tumor

________________________ 4. Removal of a “hot” appendix

________________________ 5. A stomach ulcer operation

Select the key choices that identify the following body parts or areas.

- Enter the appropriate letter or corresponding term in the answer blanks.

**Key Choices**

A. Abdominal  
B. Antecubital  
C. Axillary  
D. Brachial  
E. Buccal  
F. Cervical  
G. Femoral  
H. Gluteal  
I. Inguinal  
J. Lumbar  
K. Occipital  
L. Popliteal  
M. Pubic  
N. Scapular  
O. Sural  
P. Umbilical

________________________ 1. Armpit

________________________ 2. Thigh region

________________________ 3. Buttock area

________________________ 4. Neck region

________________________ 5. “Belly button” area

________________________ 6. Genital area

________________________ 7. Anterior aspect of elbow

________________________ 8. Posterior aspect of head

________________________ 9. Area where trunk meets thigh

________________________ 10. Back area from ribs to hips

________________________ 11. Pertaining to the cheek
Using the key terms from the previous question, label all body areas indicated with leader lines on Figure 2.

In addition, identify the sections labeled A and B in the figure.

Section A: _________________________
Section B: _________________________

Figure 2. Anterior and posterior view of human body.
Using the key choices, identify the body cavities where the following body organs are located.

- Enter the appropriate letter or term in the answer blanks. *Letters or terms can be used more than once.*

**Key Choices**

<table>
<thead>
<tr>
<th></th>
<th>A. Abdominopelvic</th>
<th>B. Cranial</th>
<th>C. Spinal</th>
<th>D. Thoracic</th>
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<tbody>
<tr>
<td>1</td>
<td>Stomach</td>
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<td>7. Bladder</td>
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<tr>
<td>2</td>
<td>Small intestine</td>
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<td>8. Trachea</td>
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<td>3</td>
<td>Large intestine</td>
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<td>Spleen</td>
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<td>Liver</td>
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<td>11. Rectum</td>
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<td>6</td>
<td>Spinal cord</td>
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<td>12. Ovaries</td>
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Complete the following statements by choosing an anatomical term from the key choices.

- Enter the appropriate letter or term in the answer blanks.

**Key Choices**

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<tbody>
<tr>
<td>1</td>
<td>In the anatomical position, the face and palms are on the <em><strong>(1)</strong></em> body surface, the buttocks and shoulder blades are on the <em><strong>(2)</strong></em> body surface, and the top of the head is the most <em><strong>(3)</strong></em> part of the body. The ears are <em><strong>(4)</strong></em> to the shoulders and <em><strong>(5)</strong></em> to the nose. The heart is <em><strong>(6)</strong></em> to the spine and <em><strong>(7)</strong></em> to the lungs. The elbow is <em><strong>(8)</strong></em> to the fingers but <em><strong>(9)</strong></em> to the shoulder. In humans, the dorsal surface can also be called the <em><strong>(10)</strong></em> surface; however, in four-legged animals, the dorsal surface is the <em><strong>(11)</strong></em> surface.</td>
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<td>12</td>
<td>If an incision cuts the heart into right and left parts, the section is a <em><strong>(12)</strong></em> section, but if the heart is cut so that anterior and posterior parts result, the section is a <em><strong>(13)</strong></em> section. You are told to cut an animal along two planes so that the paired kidneys are observable in both sections. The two sections that meet this requirement are the <em><strong>(14)</strong></em> and <em><strong>(15)</strong></em> sections.</td>
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