

# **Introduction to Biomedical Sciences**

## Introduction to Biomedical Sciences: Introductory Work Book

This work book has been created so that you can complete it electronically. If you would like a copy that you can print out and complete by hand, please let us know.

The following links to videos & websites will give you some background information which should help you to complete this quiz.

1. <https://opentextbc.ca/anatomyandphysiology/chapter/1-2-structural-organization-of-the-human-body-2/> This site gives an overview of the organisation of the human body.
2. <https://www.youtube.com/watch?v=Rooe4hsA47M> This video provides a useful introduction to anatomical terminology
3. <https://www.youtube.com/watch?v=H2lwROVuIBE> This video provides a very general introduction to the human body and how it works overall.
4. <https://www.youtube.com/watch?v=dZ4LSEpVDWA>: This video on anatomical terminology goes a bit over the top on detail regarding regions and quadrants but there is some useful material.
5. <http://www.teachpe.com/anatomy-physiology/the-skeleton-bones/planes-of-movement> This site covers the different planes of movement.
6. <https://quizlet.com/116461700/anatomy-body-planes-landmarks-directional-descriptors-flash-cards/> This provides some information on planes and directions of movement.
7. <https://www.youtube.com/watch?v=SVJ6o2qM0zc> This link is an accessible introduction to the main organ systems of the body.

1. What do you understand by the term *biomedical sciences*?

2. What subjects would you include under the term *biomedical sciences*?

3. Why do you think you need to study the biomedical sciences as an osteopathy student (what is the link to the practice of osteopathy)?

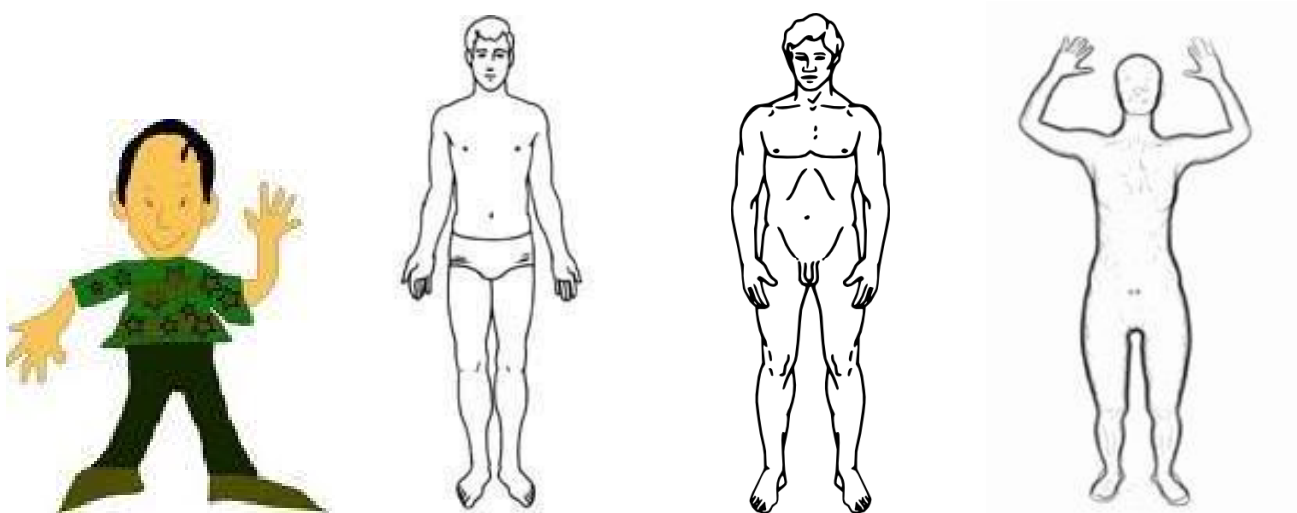
4. The elements that make up the body can be organised into a hierarchy; organise these elements into the correct order (number them 1 – 5, simplest to most complex) and briefly define each element.

	N°	Definition
<b>SYSTEM</b>		
<b>CELL</b>		
<b>ORGANISM</b>		
<b>TISSUE</b>		
<b>ORGAN</b>		

5. Name ten key systems of the body and briefly state their functions (*in no particular order!*)

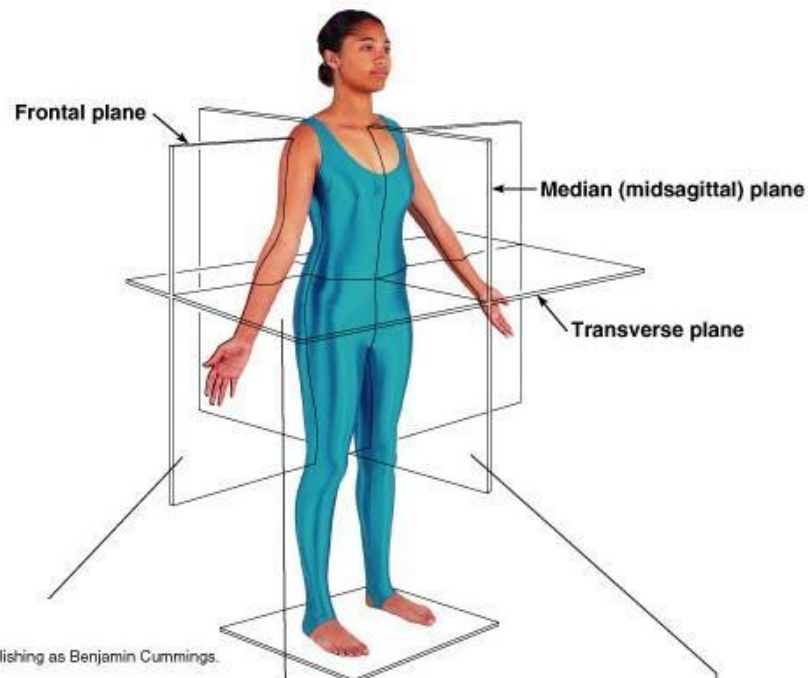
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

6. When talking about how the body moves, we often refer to the *anatomical position*. Look at the diagrams below, which do you think best illustrates the anatomical position (tick the appropriate box)?



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7. When talking about movements and also about ways we look at the various parts of the body, we refer to main three planes – see below.



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Highlight the correct description for each plane listed below.

**A) Median (midsagittal) plane:**

*Lies horizontally, dividing the body into top & bottom– cutting across the body*

*Lies vertically and divides the body into anterior & posterior parts – runs from ear to ear*

*Lies vertically be at 90° to the sagittal plane: divides the body down the middle –straight between the eyes, separating left from right)*

**B) Frontal (coronal) plane:**

*Lies horizontally, dividing the body into top & bottom– cutting across the body*

*Lies vertically and divides the body into anterior & posterior parts – runs from ear to ear*

*Lies vertically be at 90° to the sagittal plane: divides the body down the middle –straight between the eyes, separating left from right)*

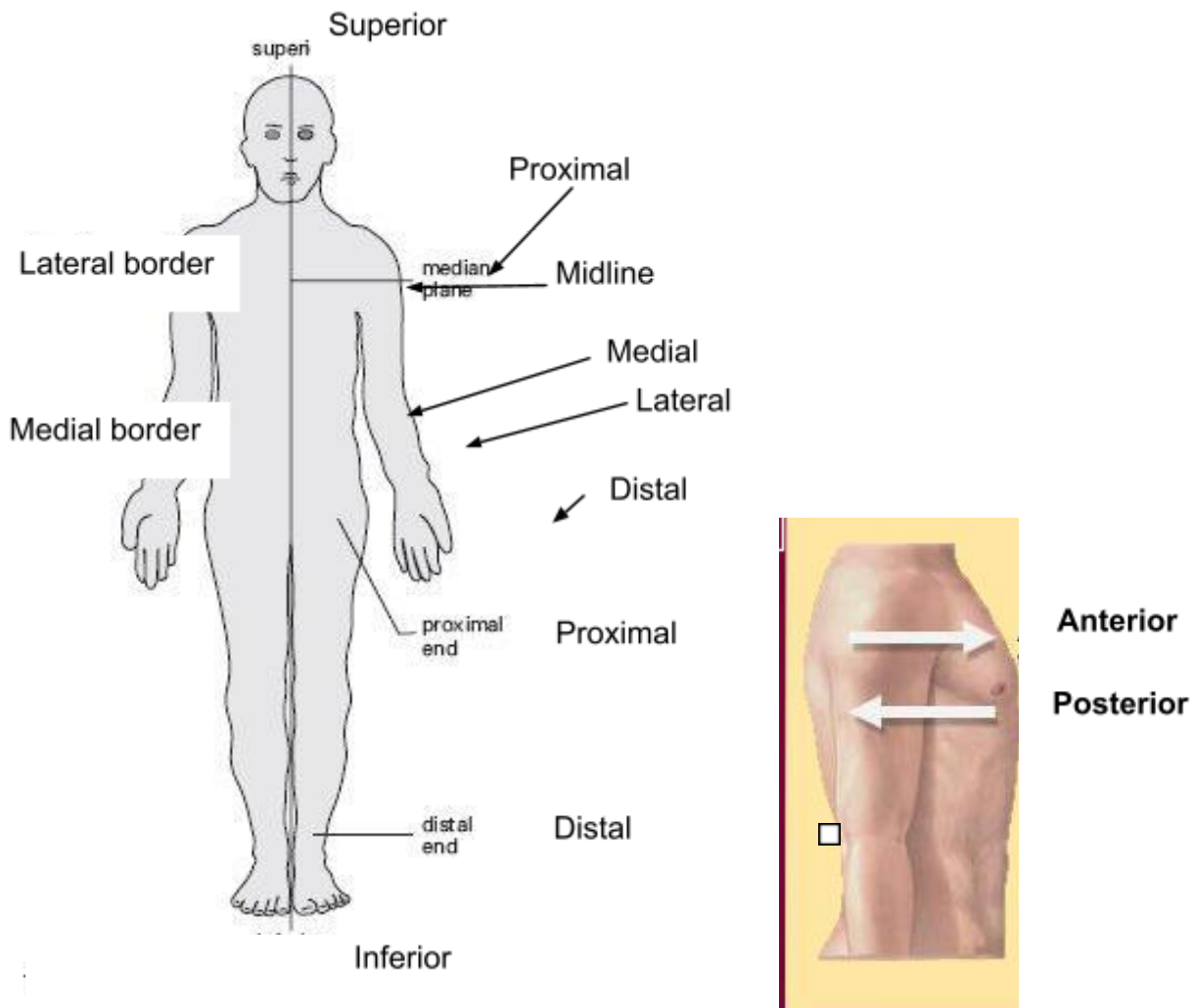
**C) Transverse (horizontal) plane:**

*Lies horizontally, dividing the body into top & bottom– cutting across the body*

*Lies vertically and divides the body into anterior & posterior parts – runs from ear to ear*

*Lies vertically be at 90° to the sagittal plane: divides the body down the middle –straight between the eyes, separating left from right)*

8. When we refer to the body and the relationships between the different parts we use a range of terms, many of which are illustrated on the diagrams below.



Now define the following terms in your own words:

<b>Superior:</b>
<b>Inferior:</b>
<b>Anterior:</b>
<b>Posterior:</b>
<b>Medial:</b>
<b>Lateral:</b>
<b>Proximal:</b>
<b>Distal:</b>
<b>Midline:</b>