

Anatomy of a Bone - Drawing

Directions:

1. Choose a long bone to draw.
2. Including all details, NEATLY draw your selected bone. Your drawing should take up a full 8.5x11 piece of printer paper. This means you will be HAND drawing it larger than the bone actually is. This should help allow you to show the details in your drawing that you are seeing. You might want to draw a front and a back version of your bone.
 - Write the name of your long bone at the top of your page.
 - MARKINGS** (do not color): Each bone has its own markings, depending on which one you picked. You may need to look them up online to find the markings for your bone.
 - For extra credit, you can label one side of your bone (the side not being used for the half described below) with all the markings' names.
3. On one ½ of your bone (ie the top half of drawing of the front side of the bone OR the bottom half of the back side or either of the other 2) you will need to draw what you would expect to see on the inside of the bone. You may wish to reference pages 137-138 in your textbook and your notes. Clearly label and color (with the indicated color) the following terms:
 - EPIPHYSIS** (do not color): The epiphysis has a thin layer of compact bone, while internally the bone is cancellous. The epiphysis is capped with articular cartilage.
 - Be sure to indicate the proximal AND distal ends!
 - EPIPHYSIAL LINE** (color purple): The epiphyseal line or disk is also called the growth plate, it is found on both ends of the long bone (but you are only labeling one end).
 - DIAPHYSIS** (shaft) (do not color): The diaphysis is the shaft of the long bone. It has compact bone with a central cavity.
 - ARTICULAR CARTILAGE** (color green): The articular cartilage is found on the ends of long bones. It is smooth, slippery, and bloodless.
 - PERIOSTEUM** (color dark blue): Periosteum is a vascular, sensitive life supporting covering for bone. It provides nutrient-rich blood for bone cells and is a source of bone-developing cells during growth or after a fracture.
 - SPONGY Bone and MARROW** (color red): The cancellous bone is found mainly within the epiphysis and has a textured appearance where it contains red marrow.
 - COMPACT BONE** (color pink): The compact bone is a dense bone found in the diaphysis. Its repeated pattern is arranged in concentric layers of solid bone tissue. The compact bone can be seen as the layer just underneath the periosteum.
 - MEDULLARY CAVITY & BONE MARROW** (color yellow): The medullary cavity of the diaphysis serves to lighten bone weight and provide space for marrow. Yellow marrow is associated with fat.
 - ENDOSTEUM** (color light blue): The tissue that lines the medullary cavity of bone
4. Obtain a grading rubric from Ms. BradyLong.
5. Staple it to your drawing then answer the questions below it.



	5pt	4pt	3pt	2pt	1pt	0pt
Neatness	Neat, smooth lines, all unwanted marks are erased.	Neat but lines are not smooth or there are a few unwanted marks left.	Neat-ish but lines are not smooth or there are a few unwanted marks left.	Messy, little care was used while drawing.	Very messy, clearly little to no care was used while drawing.	Bone is not hand drawn on a loose piece of paper but created using a computer.
Labels	Labels are legibly PRINTED, clearly labeled, spelled correctly. The name of your bone is written in large font at the top of your page.	1 or 2 labels are missing but the rest are present, legibly PRINTED, clearly labeled, spelled correctly. The name of your bone is written in large font at the top of your page.	Name of bone is missing. OR A few labels are missing but the rest are present and good. OR Labels are typed or computer generated.	A few labels are present but most are missing. OR Labels are illegible.	Bone name is written but no parts are labeled.	No labels present
Color			Each item is colored according to its indicated color.	1 or 2 colors are not the directed color or are missing.	Most of the colors are incorrect or are missing.	Bone is not colored.
Size			Bone takes up a majority of the page.	Bone is large but there is white above or below it.	Attempt to take up most of the page but there is still room on either end of the bone.	Bone is traced from the sample given.
Questions		All 6 questions are answered correctly with either the question written or in echo answers.	All 6 questions are answered correctly but the questions are missing and they are not in echo answers	All 6 questions are answered. 1-3 are incorrect.	Some questions are missing. OR Most answers are incorrect.	Questions are not answered.

Answer each of the following questions:

- A. Where do you find yellow marrow (be specific)?
- B. What type of bone is arranged in concentric layers? C. Where do you find red marrow?
- C. What is the end of the bone called?
- E. Spongy bone is also called __bone.
- F. What cushions the ends of bones at their joints?