

Name: _____

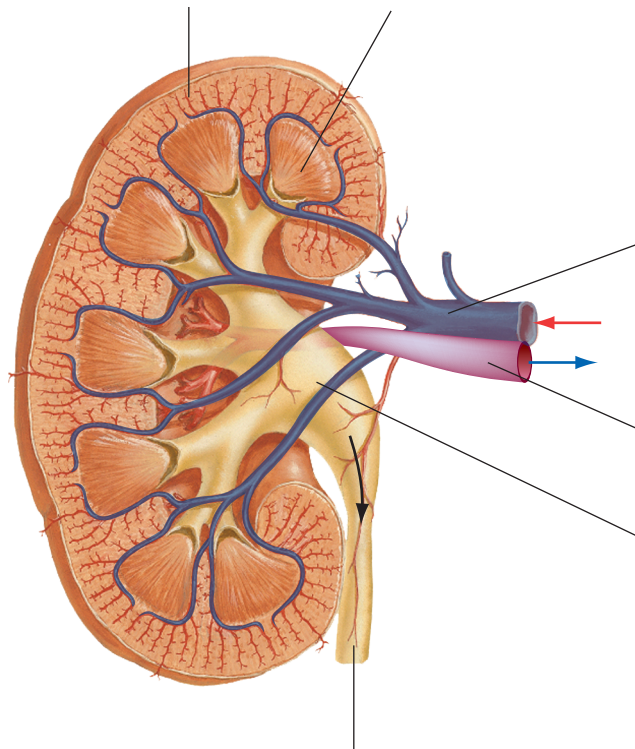
Class: _____

WORKSHEET

10.1 The kidneys

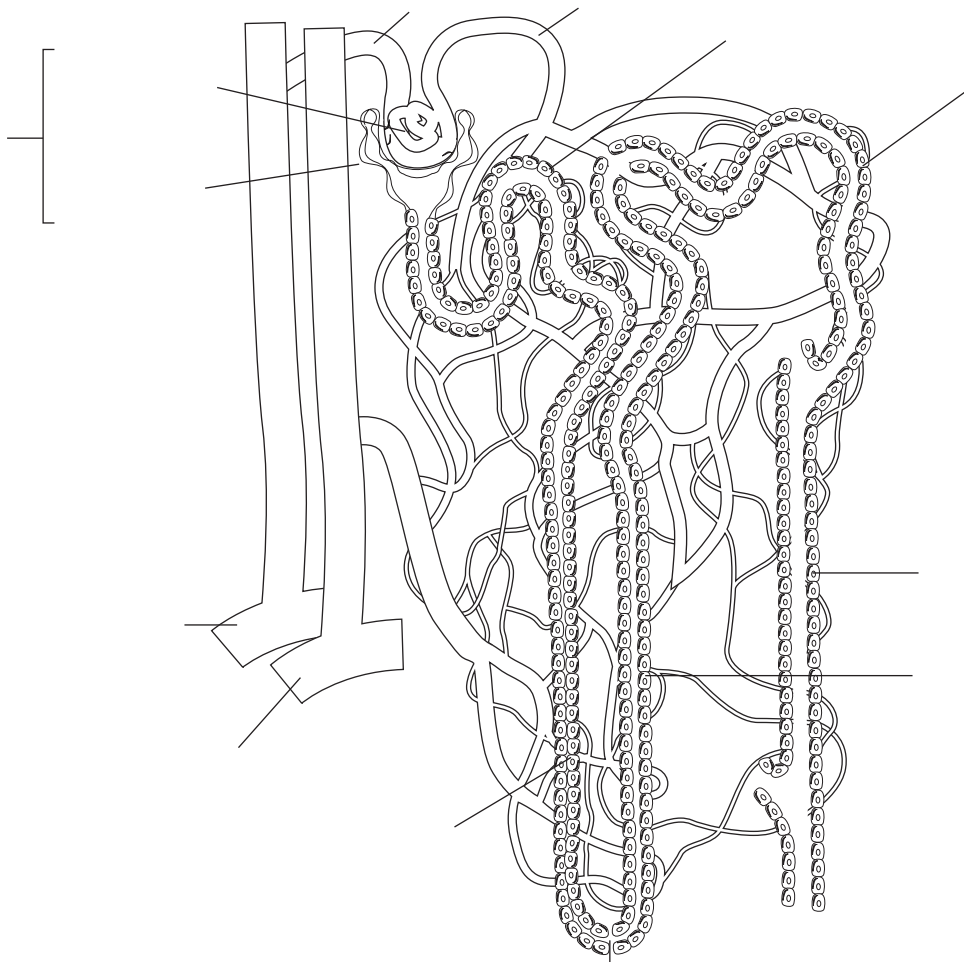
Using the information in Chapter 10 of *Human Perspectives Units 1 & 2* and other sources available to you, complete the following activities.

- 1 Define 'excretion'.
- 2 List the organs of the body that are involved with excretion.
- 3 Label the following diagram of the kidney.



- 4 The structural and functional unit of the kidney is the nephron. Nephrons must be well supplied with blood so that they are able to efficiently filter it. Use a flow chart to summarise blood flow through the kidney and nephron starting at the renal artery and finishing with the renal vein.

- 5 Label the diagram of the nephron. In **red** pencil, trace the pathway of nutrients that are filtered and reabsorbed into the capillaries surrounding the tubule. In **blue** pencil, trace the pathway of cells and molecules such as proteins that are too big to be filtered. In **yellow** pencil, trace the pathway of the wastes destined to become urine.



- 6 Write a story describing the journey and fate of Gloria Glucose, Alice Amino Acid, Pamela Protein and Ursula Urea from the time they enter the renal artery from the aorta. You should illustrate your story. Use your own paper or computer to be as creative as you like.