10. Some white blood cells protect the body by producing specific antibodies. Name another way in which certain white blood cells protect the body against harmful antigens.
Phagocytosis: white blood cells travel to the site of the infection to engulf and destroy the harmful antigen.

11. Indicate whether the following statements describe specific immunity, non-specific immunity or artificial immunity:

a) Immunity against antigens by natural barriers such as the skin
Non-specific

b) Immunity the body acquires after the flu *Specific, natural*

c) Immunity provided by the production of antibodies
Specific, natural (following an illness); specific, artificial (following vaccination)

d) Immunity provided by the rubella vaccine *Specific, artificial*

Student textbook, page 127

The Anatomy and Physiology of the Urinary System (*pages 121 to 124*)

1. Match each of the functions described below to one of the following organs: kidney, ureter, urethra or bladder.

a) This organ is a long tube that transports urine from the kidneys to the bladder. *Ureter*

b) This organ is expandable and stores urine. *Bladder*

c) This organ filters blood to separate what the body must excrete from what the body needs to keep.
Kidney

d) This tube is located at the exit of the bladder and carries urine to the outside of the body. *Urethra*

Maintaining Equilibrium in the Bloodstream (*pages 124 and 125*)

2. Each of the situations described below has an effect on the excretory system.

a) Explain this effect by choosing from one of the two following consequences:

- The volume of urine increases.
- The volume of urine decreases.

b) Next, explain why this effect occurs.

1) Your little brother is drinking the lemonade you have just made.
The volume of urine will increase because the amount of liquid consumed has increased.

2) Your mother is having medical tests performed tomorrow. She carefully follows the doctor's advice, i.e. she is not allowed to eat or drink from 8 p.m. onward.
The volume of urine will decrease because no fluids are being consumed.

3) Your aunt is on a new diet. She no longer eats any sweet or salty food. *The volume of urine will increase because a decrease in the amount of salt consumed causes the kidneys to remove more water from the blood so that the blood's mineral concentration will increase.*

4) It is a hot, sunny day, and you decide to work out. After 40 minutes of running, you are sweating profusely. *The volume of urine will decrease because when the body perspires heavily, the kidneys adapt by removing less water from the blood.*