Name _____

AP Biology

Chapter 44 - Osmoregulation and Excretion

Guided Reading Assignment Campbell's 10th Edition

Essential Knowledge
None

1. Define the following terms:
   a. Osmoregulation

   b. Excretion

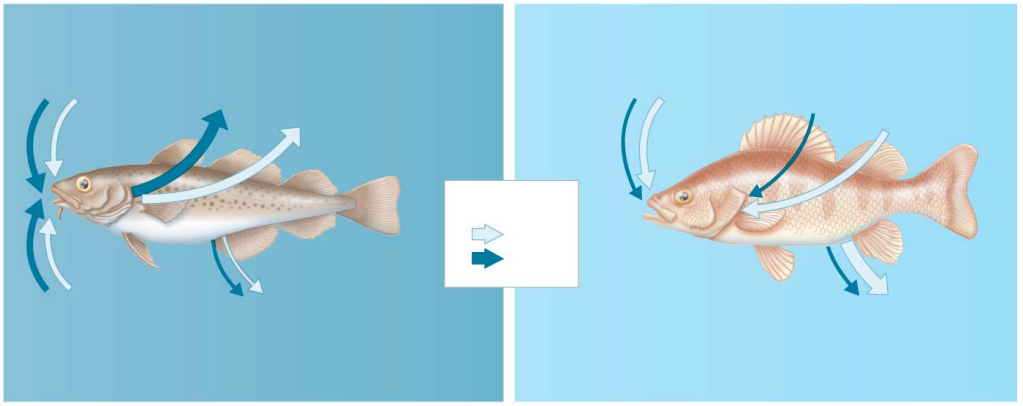
   c. Osmolarity

   d. Osmoconformer

   e. Osmoregulator

2. Describe how saltwater fish deal with osmoregulation.

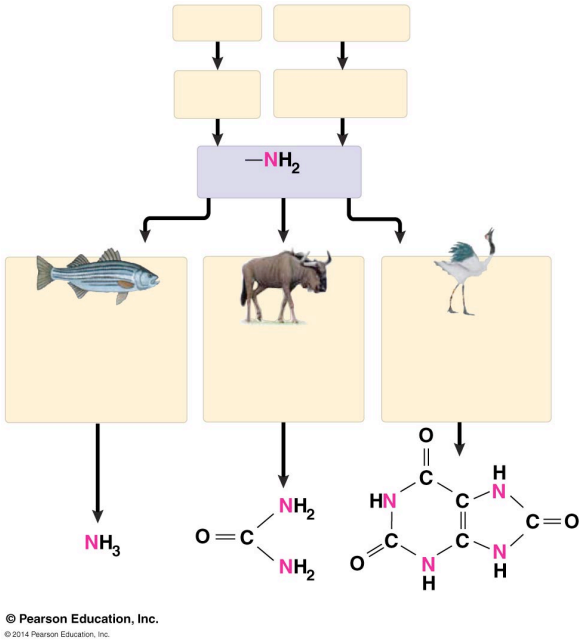
3. Describe how freshwater fish deal with osmoregulation

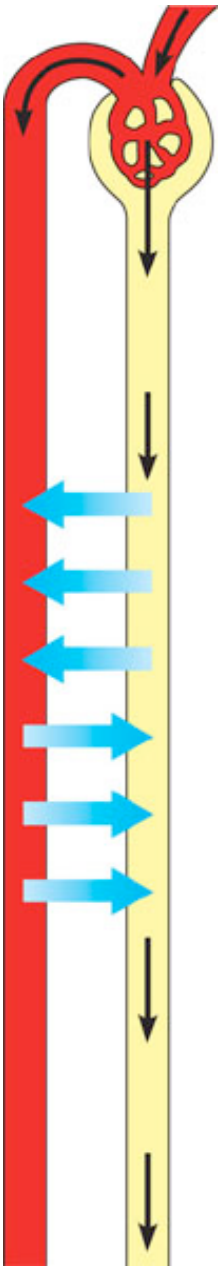


4. What is anhydrobiosis and what is special about tardigrades?

5. How do birds that drink seawater deal with excess sodium?

6. Label the three forms of nitrogenous waste on the diagram and describe how each is stored and excreted





7. Use the diagram to label and define filtration, reabsorption, secretion and excretion – be very clear on their meanings.

8. Contrast protonephridia, metanephridia and Malpighian tubules.

9. Use the diagram below to review the functions of the transport epithelium – note by different colors active and passive transport.

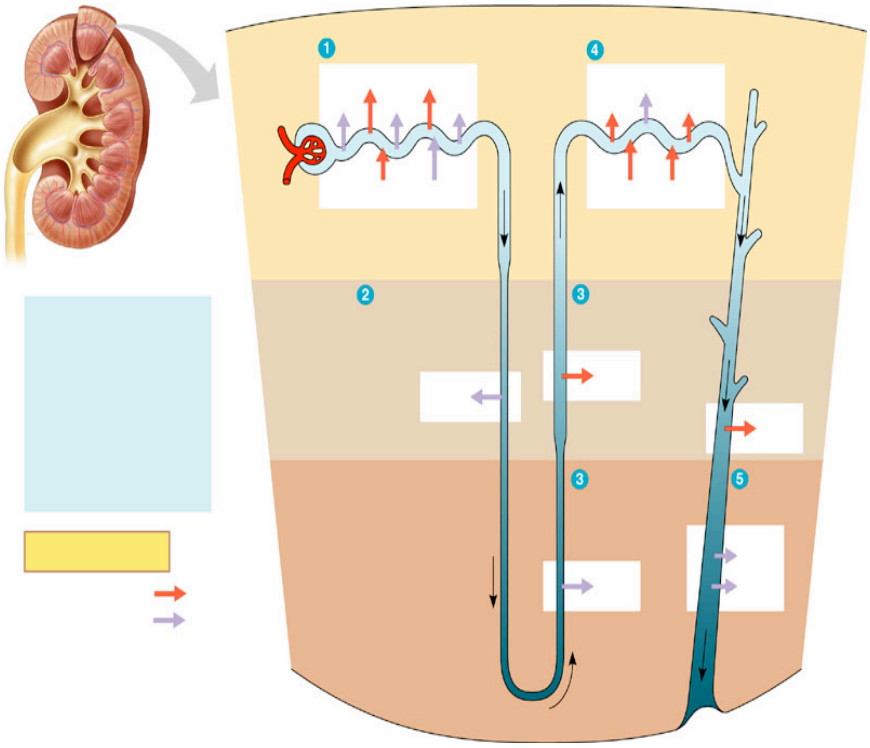
   Be clear on the terms reabsorption and secretion.

   Restate the activities at the following locations:
   a. Proximal tubule

   b. Descending loop of Henle

   c. Ascending loop of Henle

   d. Collecting duct



10. Describe how fluid control is regulated with each of the following
    a. ADH

    b. Juxtaglomerular appartatus

    c. Aldosterone