

Subject: Science
Level: Form 3 Biology
Topic: Excretion

Key Points:

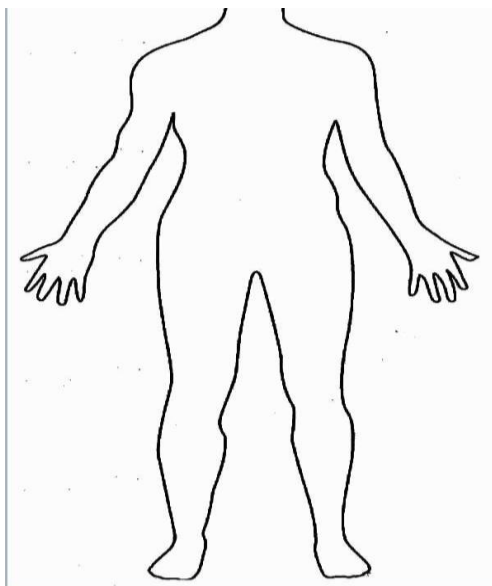
- Excretion is the process by which metabolic/chemical waste is removed from the body.
- Excretion is necessary to reduce toxins from destroying cells and body organs.
- Excretion should not be confused with egestion – which is the removal of undigested waste products as faeces.
- The basic unit of excretion in the kidney is the nephron.
- The nephron enables filtration, absorption and excretion.

Activity 1

1. Fill in the table with either excretory organ or the product.

Excretory Organ	Excretory Product
	Carbon Dioxide
Skin	
	Urea (urine)
Liver	

Activity 2. Draw the location of the excretory organ on the human outline below.



Activity 3. Vocabulary and terms based on excretion

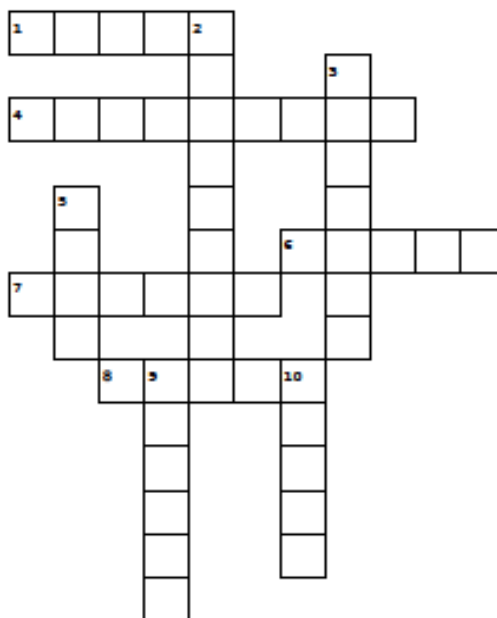
Use the word bank to match the term to the definition and fill in the blanks below.

Urea	Urethra	Kidneys	Nephron
Bladder	Ureters	Liver	Urine

1. _____ - two ducts where urine travels to the bladder
2. _____ - the organ that filters blood and converts the end- product to urine.
3. _____ - the muscular bag that that hold urine.
4. _____ - a pair of bean shaped organs that filter the blood of urea.
5. _____ - tube that takes urine out of the body
6. _____ - a mixture of urea, salts and water.
7. _____ - the organ that converts excess amino acids to urea
8. _____ - the substance that the liver converts excess amino acids.

Activity 4: Complete the Excretion Cross Word Puzzle

Excretion



Down:

2. Vessel that carries blood toward the heart from the kidneys.
3. The small unit of the kidney where filtration takes place.
5. This organ contains sebaceous glands
9. Is a muscular tube that carries urine to the bladder
10. The waste material expelled through the largest organ in the body

Across:

1. Deaminates amino acid to urea
4. Function to inhibit the release of urine.
6. Mixture of urea, water and salts.
7. Above this organ you can find the adrenal gland
8. Excretes carbon dioxide

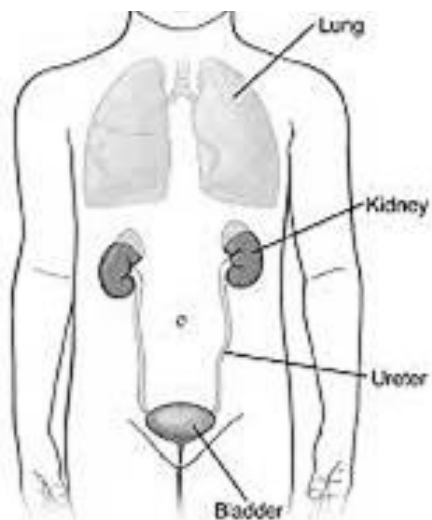
ANSWER KEY

Activity 1

1. Fill in the table with either excretory organ or the product.

Excretory Organ	Excretory Product
Lungs	Carbon Dioxide
Skin	Sweat (urea, salts, water)
Kidney	Urea(urine)
Liver	Bile and Urea

Activity 2.



Activity 3. Excretory Vocabulary and terms

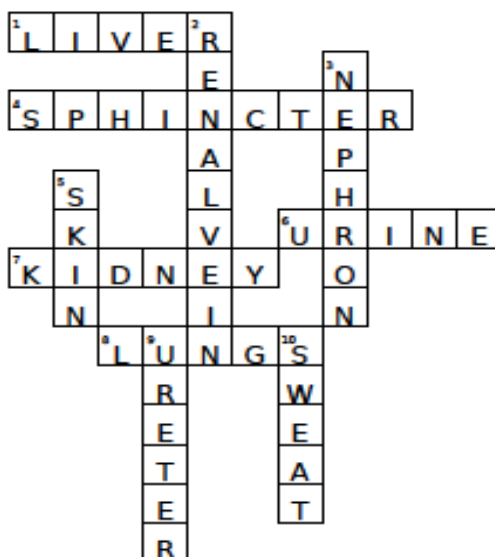
Use the word bank to match the term to the definition and fill in the blanks below.

Urea	Urethra	Kidneys	Nephron
Bladder	Ureters	Liver	Urine

1. **Ureters** - two ducts where urine travels to the bladder
2. **Nephron** - the organ that filters blood and converts the end- product to urine.
3. **Bladder** - the muscular bag that that hold urine.
4. **Kidneys** - a pair of bean shaped organs that filter the blood of urea.
5. **Urethra** - tube that takes urine out of the body
6. **Urine** - a mixture of urea, salts and water.
7. **Liver** - Organ that converts excess amino acids to urea
8. **Urea** - the substance that the liver converts excess amino acids to.

Activity 4: Crossword Answers attached.

Excretion



Down:

2. Vessel that carries blood toward the heart from the kidneys.
3. The small unit of the kidney where filtration takes place.
5. This organ contains sebaceous glands
9. Is a muscular tube that carries urine to the bladder
10. The waste material expelled through the largest organ in the body

Across:

1. Deaminates amino acid to urea
4. Function to inhibit the release of urine.
6. Mixture of urea, water and salts.
7. Above this organ you can find the adrenal gland
8. Excretes carbon dioxide

References

Wikipedia. 19 November 2007. Outline of human body.

<https://en.wikipedia.org/wiki/File:Outline-body.png>

Drawing of kidney

<https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcSk1Echhg7AjDcoQgefBf5-1H3gMcftOwtoj78gklUPMrImGRYi&usqp=CAU>

Creation of crossword puzzle. www.education.com