**3.2.6 ATP**

Where in the body is ATP made and by which process?  
What are the 3 parts of an ATP molecule

Where is the energy stored in ATP?

Write the reaction from ADP to ATP

Which reaction is a dehydration synthesis and which is a hydrolysis reaction?

**3.3 Respiratory System**

Describe the track of air from the nose to the site of gas exchange

Be able to label a diagram of the respiratory system

Name 3 functions of the nose.

What does the larynx do/ what covers it while swallowing food?

What is Boyle’s law and its importance?

What happens during inspiration? (Include muscles used and the change in volume and pressure)

What happens during expiration? (Include muscles used and the change in volume and pressure)

What is the difference between normal and deep expiration?

What is hemoglobin and its role in the respiratory system?

What is surfactant and why is it produced?

Be able to describe what each lung volume means and calculate: vital capacity/ total lung capacity/ residual volume/ tidal volume/ expiratory reserve volume/ inspiratory reserve volume

Calculate the minute volume of the lung.

What is the structure of an alveoli? How does that relate to its function?

Define each in terms of reading prescriptions: Different modes of taking medicine (top, PO, IM, INJ, IV) / How often to take (PRN/ qh/ q4h / ad lib)/ Generic versus brand name

What are the two main medications for asthma and which is a rescue treatment (ex. Accolate)

Be able to calculate the green, yellow, and red zone and interpret a peak flow chart for asthma

What causes asthma and what change occurs in the bronchi? How dopes medication help with this?

What is FEV1 and what is it used for?

What is pulse oximetry and its normal value

How does gas exchange in the alveoli and tissues.

Define: respiratory zone / conducting zone/ bronchiole / spirometer

**3.4**

What is the pathway of urine from kidney to out of the body.

Identify the organs of the urinary system from a diagram

Functions of urinary system other than urine formation.

What is a nephron/ where does it lie?

Label the parts of kidney and nephron- Cortex, Medulla, Pyramids, Capsule, Collecting duct, Loop, Proximal convoluted tubule, Distal convoluted tubule, glomerulus, Bowmen’s capsule, efferent arteriole, afferent arteriole from activity 3.4.3 worksheet.

Define the difference between filtration / secretion / reabsorption in terms of movement of substances from blood to kidney and back.

Estimate the glomerular filtration rate of the kidney and convert to Liters per day.

Describe the filtration and reabsorption of: glucose / Sodium / water / Potassium

Explain what positive urinalysis results are indicative of in your body (from ppt)

Explain the role of digestive, urinary, and respiratory systems in removal of waste.

How does ADH and aldosterone affect the nephron and the body’s overall water balance. Where is each made?