

Biology revision checklist

Cells and Life Processes

Explain the 7 life processes that all living organisms carry out.
Know that all organisms are made of cells
Identify structures found in animal and plants cells and state their functions
State the differences between animal and plant cells
Give examples of tissues and organs and know the difference between them
Be able to label the parts of a microscope
Be able to make a slide of onion epidermis
Be able to view the slide using a microscope at low & high power
State that chromosomes in the nucleus of a cell are made of DNA and that genes are short pieces of a chromosome.
Know that genes code for our characteristics
Variation is caused by genes and/or the environment
Know the difference between continuous and discontinuous variation
Be able to measure characteristics that show continuous variation eg height and draw a histogram of the data
Be able to measure characteristics that show discontinuous variation eg tongue rolling and draw a bar chart of the data

Respiration and Gas Exchange

State the word equation for aerobic respiration

List the uses of energy by living organisms

Label a diagram of the respiratory system

Explain the term gas exchange

Explain that gases *diffuse* into & out of the alveoli

List 4 adaptations of the alveoli for gas exchange

Explain how we breathe in and out

Compare the composition of inhaled and exhaled air and explain any differences

Carry out an experiment to compare the carbon dioxide concentration of inhaled and exhaled air

Explain the harmful effects of nicotine, tar, carbon monoxide and passive smoking on health

Nutrition and Digestion

Appreciate why we need food
Name seven food groups, their functions and examples of sources
Test foods for starch, sugar, protein and fat.
Recall the reagents used.
Appreciate the difference in energy content of crisps.
Determine loss of energy in the experiment
Understand the term a balanced diet.
Appreciate energy requirements for different people.
Understand the process of digestion.
Appreciate what occurs in each part of the digestive system.

Circulation

Know the function & main parts of the circulatory system
List the components of blood & their functions
Examine blood samples through the microscope
Learn the structure of the heart
Learn the vessels which connect to the heart
Describe blood flow through the heart
List the 3 types of blood vessel
Explain their structure & function
Carry out a heart dissection
Explain the structure & function of internal structures in the heart
Learn the causes & effects of coronary heart disease