**Unit 3: Scientific** 

**Investigative Skills:** 

Plants & Enzymes

PPE

Exam

**B14: Genetics & Evolution** 

Resistance, Classification

(Linnaeus), Binomial System

Extinction. Antibiotic

Evidence of Evolution, Fossils,



**B12: Reproduction** 

Asexual and Sexual

The Human Genome,

Inheritance, Genetic

GCSE Paper 2 Topics

Reproduction, Meiosis,

Disorders and Screening

## Biology EYFS to Post 16

**B9: Respiration** 

and Metabolism

Aerobic and anaerobic,

**B8: Photosynthesis** 

Use Glucose.

**YEAR** 

Human Population Explosion, Air, Water and

Land Pollution, Deforestation, Global

Warming and Heathland Restoration

Factors Affecting the Rate of

Photosynthesis, How Plants

Response to Exercise

& Function

**B1: Cell Structure** 

Unit 1

Forensic Science & Criminal Investigation (BTEC)

Mixture of exams and coursework covering the fundamentals of crime scene investigation

Equivalent to 2 A-

Applied Science (BTEC)

Mixture of exams and coursework covering fundamentals of Chemistry.

**Digestive System** Animal Tissues & Organs, Digestive System, Enzymes, Food Tests and Nutrients, **How Digestion Works** How pH and Temperature Affect



Enzymes.



<u>Unit 1</u>

**Apprenticeship** 

**POST** 

16

**Function** 

Work and get paid to learn

in the Biology sectors.

**B3: Tissue Structure &** 

**B15: Adaptation, Interdependence** 

Distribution of Organisms (Random

Sampling and Transects), Adapting

Importance of Communities,

& competition

Health & Disease, Pathogens: Bacteria, Viruses, Fungi and Protists, Preventing Infections, Human Defenses and immunity.

Selective Breeding, Genetic Engineering

**B13:Variation and Evolution** 

**B5: Communicable Diseases** 

Causes of Variation, Natural Selection,

Unit 8 Physiology of Human

**Body Systems** 

**B6: Preventing the Spread of & Treating Disease** Vaccinations, antibiotics an

painkillers, discovering drugs and developing new drugs

**B11: Hormonal Coordination** blood glucose (diabetes), puberty and menstrual cycle. Fertility treatments and infertility.

**B10: The Human** Nervous System

Structure & Function

Homeostasis

of the Nervous

System, Reflexes.

**B16: Organising an Ecosystem** Feeding relationships, Material Recycling, Carbon Cycle

C MY

PPE

Exam

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PPE Exam



**YEAR** 

**B4: Organising Plants & Animals** Blood, Blood vessels, The Heart, Breathing and Gas Exchange. Tissues and Organs in Plants, Xylem and Phloem, Transpiration



**B1: Cell Structure & Transport** Microscopes, Animal & Plant Cells, Cell organelles, Specialised Cells, Diffusion, Osmosis, Active Transport



GCSE Paper 1 Topics

Risk factors, cancer, Effects of Smoking, Alcohol, Illegal Drugs, Diet and Exercise on Health.



Genes 2 10.3 Evolution 10.4 Inheritance



the Environment

Start GCSE topics in Spring 1

**B2: Cell Division** Cell Division,

Mitosis, Stem Cells, Cloning









Organisms 2 8.3 Breathing 8.4 Digestion



**Ecosystems 2** 9.3 Respiration 9.4 Photosynthes





Organisms 1 8.2 Cells





10.1 Variation 10.2 Human reproduction



need water, light and a lead to evolution. Fossils are evidence for this

Can describe the basic





All organisms produce offspring of the same kind. but most have genetic variation.



Describe the ways in which nutrients and water are transported within animals



Animals #6

Identify and name the main parts of

the human circulatory system and

describe the function of the heart,

blood vessels and blood

Investigate the way

transported within

in which water is

diet, exercise, drugs and

lifestyle on the way bodies

Living things are classified into groups, dependent on their similarities and differences (including

Identify that animals,

the right type of food

including humans, need

Living things and their habitat #4

microorganisms). Giving Animals #5 reasons for classifications.

Construct and interpret a

variety of food chains,

identifying producers,

predators and prey



Describe changes as humans develop to old age.

Animals #4

system.

Describe the simple

functions of the basic

parts of the digestive

Living things and their habitat #3

Describe the process of

reproduction in some

plants and animals.

Life cycles of a mammal, an amphibian, an insect and a bird..



Types of

teeth and

function.

Explore and

classification

Describe how animals obtain food from plants and other animals, using the idea of a simple food chain

Identify an name a variety of plants and animals in their habitats, including microhabitats

Identify that most living things live in habitats

Living things and their habitat #1

Identify living, dead and never living objects.



Can draw and label the basic parts of the human body and associate to the senses.

Name common carnivores, herbivores and omnivores

> Animals, including Humans #1 Name common carnivores, herbivores and omnivores



healthy Plants #2

Animals #2

All animals

reproduce

Describe and

compare the

structure of

the 4 seasons and

describe associated

length changes

weather and how day

amphibians,

reptiles, birds and mammals

How seeds and bulbs grow into mature plants

Describe how plants

suitable temperature

to grow and stay





KS1

**Evolution and Inheritance** 

Understand that living things change over

time and adapt to suit their specific

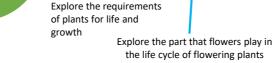
environment. Understand that adaptation may

change.

Understand importance o diet and exercise

common animals. Identify fish

Describe the parts of a flowering plant.



Plants #3

Identify and

a plant: roots.

and flowers.

describe the parts of

leaves, stem/trunk

Make observations of animal and

the life cycle of flowering plants

Understand how materials are similar and different



All animals have skeletons and muscles for movements and support.



keys Living things and their habitat #2

in a variety of ways and recognise how changes in environment can pose dangers to living

Can group living things

**EYFS** 



Identify and name a variety of common wild and garden Observe changes across plants, including deciduous and evergreen trees.

Plants #1



Notice and discuss changes in their environment, animals and people

Make observations of their living environment

Understand similarities and difference between themselves and others

