

Bramhall High School Biology



A level Sciences – Biology, (Need grade 6 and above and grade 6 in Maths)



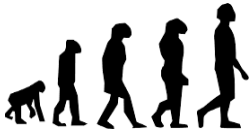
BTEC Human Biology
(Need Grade 5 in Science)



Other post 16 options – Apprenticeships, other A level subjects, other BTEC subjects, other training, College.



End of year exams!!



Review Core Practicals and consolidation of learning



- The water cycle
- The carbon cycle
- The nitrogen cycle
- Rates of decomposition

- Ecosystems
- Energy transfer
- Abiotic factors and communities
- Biotic factors and communities
- Assessing pollution

- Efficient transport and exchange
- Factors affecting diffusion
- The circulatory system
- The heart
- Cellular respiration

- Control of blood glucose
- Type 2 diabetes
- Thermoregulation
- Osmoregulation
- The kidneys

- Hormones
- Hormonal control of metabolic rate
- The menstrual cycle
- Hormonal control of the menstrual cycle

B7

- Parasitism & mutualism
- Biodiversity & humans
- Preserving biodiversity
- Food security

B9

B8

YEAR
11

- Sexual & asexual reproduction
- Meiosis
- DNA
- Protein synthesis
- Genetic variants and phenotypes

- Tissue culture
- Genes in agriculture and medicine
- GM and agriculture
- Fertilisers and biological control

- Health and disease
- Non-communicable diseases
- Cardiovascular disease
- Pathogens
- Spreading pathogens
- Virus lifecycles

- Plant defences
- Plant diseases
- Physical defences
- Chemical defences
- The immune system
- Antibiotics
- Monoclonal antibodies

- Photosynthesis
- Factors affecting photosynthesis
- Absorbing water and mineral ions
- Transpiration and translocation

- Plant adaptations
- Plant hormones
- Uses of plant hormones

National Curriculum
Compliant



- Mendel
- Alleles
- Inheritance
- Gene mutations
- Variation
- Multiple & missing alleles

- Human evolution
- Darwin's theory
- Development of Darwin's theory
- Classification
- Breeds and varieties

B5



- Reactions in plants
- Plant adaptations
- Plant products
- Growing crops
- Farming problems
- Organic farming



Plant Growth

- Mitosis
- Growth in animals
- Growth in plants
- Stem cells
- Nervous system
- Neurotransmitter speeds
- The Brain
- The Eye

YEAR
10

- Enzyme action
- Enzyme activity
- Transporting substances
- Food tests

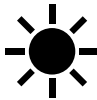
B1



- Aerobic respiration
- Gas exchange systems
- Getting oxygen
- Comparing gas exchange
- Anaerobic respiration

- Environmental variation
- Inherited variation
- DNA
- Genes and extinction
- Natural selection

YEAR
9



- Classification and Biodiversity
- Types of reproduction
- Pollination
- Fertilisation and dispersal
- Germination and growth

Food and
nutrition



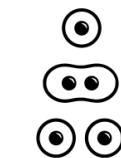
- Nutrients
- Diet
- Digestion
- Absorption

Plants and
their
reproduction



Breathing
and
respiration

- Animal sexual reproduction
- Reproductive organs
- Becoming pregnant
- Gestation and birth
- Growing up



Cells Tissues
Organs and
Systems

Science
Skills

- Unicellular or multicellular
- Microscopic fungi
- Bacteria
- Protoctists
- Decomposers and carbon



Genetics and
evolution

YEAR
9

YEAR
8



Muscle and
bones

- Muscles and breathing
- Muscles and blood
- The skeleton
- Muscles and moving
- Drugs

Sexual
reproduction
in animals

- Life processes
- Organs
- Tissues
- Cells
- Organ Systems



YEAR
7



welcome

- Variation
- Adaptation
- Effects of the environment
- Effects on the environment
- Transfers in food chains

Ecosystems