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!!

YEAR 11

Review Core Practicals and consolidation of learning

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

B9
- Parasitism & mutualism
- Biodiversity & humans
- Preserving biodiversity
- Food security

B2
- Ecosystems
- Energy transfer
- Abiotic factors and communities
- Biotic factors and communities
- Assessing pollution

B8
- Efficient transport and exchange
- Factors affecting diffusion
- The circulatory system
- The heart
- Cellular respiration

B1
- Control of blood glucose
- Type 2 diabetes
- Thermoregulation
- Osmoregulation
- The kidneys

B7
- Hormones
- Hormonal control of metabolic rate
- The menstrual cycle
- Hormonal control of the menstrual cycle

B4
- Sexual & asexual reproduction
- Meiosis
- DNA
- Protein synthesis
- Genetic variants and phenotypes

B3
- Tissue culture
- Genes in agriculture and medicine
- GM and agriculture
- Fertilisers and biological control

B5
- Health and disease
- Non-communicable diseases
- Cardiovascular disease
- Pathogens
- Spreading pathogens
- Virus lifecycles

B6
- 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

YEAR 10

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

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

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

National Curriculum Compliant

Plant Growth
- Microscopes
- Plant and animal cells
- Specialised cells
- Inside bacteria
- Enzymes and nutrition

Genetics and evolution
- Unicellular and multicellular
- Classification and biodiversity

B2
- Mitosis
- Growth in animals
- Growth in plants
- Stem cells
- Nervous system
- Neurotransmitter speeds
- The Brain
- The Eye

B1
- Enzyme action
- Enzyme activity
- Transporting substances
- Food tests

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

YEAR 9

Food and nutrition
- Nutrients
- Diet
- Digestion
- Absorption

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

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

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

YEAR 8

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

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

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

Science Skills

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

YEAR 7

welcome