VCE Biology Accepted Abbreviations

**Unit 3 – Area of Study 1**

DNA – Deoxyribonucleic Acid

RNA – Ribonucleic Acid

mRNA – messenger RNA

rRNA – ribosomal RNA

tRNA – transfer RNA

*trp* – tryptophan

Rough ER – Rough endoplasmic reticulum

gRNA – Guide RNA

sgRNA – Single guide RNA

PAM – Protospacer adjacent motif

PCR – polymerase chain reaction

b.p – base pairs

STR – short tandem repeat

GM – genetically modified

GMO – genetically modified organism

**Unit 3 – Area of Study 2**

NAD+ - Nicotinamide adenine dinucleotide

NADH - Nicotinamide adenine dinucleotide

NADP+ - Nicotinamide adenine dinucleotide phosphate

NADPH- Nicotinamide adenine dinucleotide phosphate hydrogen

FAD+ - Flavin adenine dinucleotide

FADH2 - Flavin adenine dinucleotide

LD – Light dependent

LI – Light independent

H2O – Water

O2 – Oxygen

CO2 – Carbon dioxide

Rubisco - Ribulose-1,5-bisphosphate carboxylase/oxygenase

ETC – Electron transport chain

ATP – Adenosine triphosphate

ADP – Adenosine diphosphate

Pi – Inorganic phosphate

e- - electron

H+ - hydrogen ion

**Unit 4 – Area of Study 1**

NK – Natural killer

MHC – Major histocompatibility complex

Th – T helper

Tc – T cytotoxic

APC – Antigen presenting cell

Ab – Antibody

Ig – Immunoglobulin

mAb – Monoclonal antibody

**Unit 4 – Area of Study 2**

C-14 – Carbon-14

mtDNA – Mitochondrial DNA

**Unit 4 – Area of Study 3**

IV – Independent variable

DV – Dependent variable

CV – Controlled variable