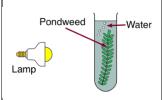
# **Upton Hall FCJ Curriculum Map 2020-2021 GCSE BIOLOGY/TRILOGY to reflect changes due to Covid 19**

	Autumn term 1	Autumn term 2	Spring term 1	Spring term 2	Summer term 1	Summer term 2
Year 9	Cytoplasm Nucleus Cell membrane Mitochondrion	Pure Water Polato oglindera  In Pure Water Decause water androx their cells by annoxis.  In Rich Sugar Solution the polato tubes androx their cells by annoxis.	Salvery Clarets  Engleric  Engleric  Forbrigue  Forbrig	Pulmonary Vene Cara Pulmonary Vene Cara Pulmonary Valve Valve Valve Valve Valve Valve Valve Valve Valve		Bud Flower Leaf Stem Root
	Cell Biology	Transport in cells	Digestion and Enzymes	Circulatory System	Non-communicable	Plants
		Transport in cens	Cturestrum of the house	Circulatory System	Diseases	Plants
	Eukaryote and prokaryote structure	Diffusion	Structure of the human digestive system	Circulatory system  Heart, blood and blood vessels	Non-communicable diseases  Lifestyle and its effect on non-communicable	Plant structure and function
	Organisation	Osmosis  Active transport	Enzymes and enzyme reactions			
						Plant tissues and organs
	Cell specialisation and		reactions	Coronary heart disease		Transpiration
	differentiation	RP3 – osmosis	RP4 – Food tests	Coronary neart disease	diseases	Transpiration
	Microscopy including IMO	experiment	RP5 – Effect of pH on		Cancer	
	calculation		enzyme reactions		Carreer	
	RP1 - use of light					
	microscopes					
	·					



End of Y9 Lock down topics included: Plant diseases and defences Biodiversity and food production

End of Y9 lockdown topics to be reviewed at the start of Y10

#### Plants continued

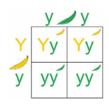
Photosynthesis and the use of glucose

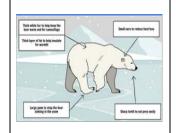
RP6 – Rate of photosynthesis













## Respiration

Aerobic and anaerobic respiration

Metabolism and response to exercise

# **Communicable diseases**

Viral, bacterial and fungal diseases

Human defence systems

# Communicable diseases cont'd

Vaccination and antibiotics

Drug development

RP2 – Effect of antimicrobials on bacteria

# Monoclonal antibodies

Production and use of monoclonal antibodies

### **Cell division**

Chromosomes

Mitosis, the cell cycle and stem cells.

# Reproduction

Meiosis

Sexual and asexual reproduction

DNA and the genome

Genetic inheritance

Inherited disorders and sex determination

Advantages of sexual and asexual reproduction

DNA structure

The understanding of genetics

# Adaptations, interdependence and competition

Communities

Adaptations

Abiotic and biotic factors

# Organisation of an ecosystem

Levels of organisation in an ecosystem

RP9 – sampling techniques to estimate population size



Lock down topics covered in Y10 included (these topics were reviewed when Y10 students attended school in July 2020):

Biodiversity and food production Variation, Evolution and Classification Ecology intro

The Cell Division and Reproduction topic in Y10 was not completed – this will be covered in Y11.

## Trophic levels in an ecosystem

How materials are recycled

Trophic levels

Pyramids of biomass

Transfer of biomass

Decomposition

RP10 – investigating the effect of temperature on decay

Mock examinations



## Reproduction

Meiosis

Sexual and asexual reproduction

DNA and the genome

Genetic inheritance

Inherited disorders and sex determination

Advantages of sexual and asexual reproduction

DNA structure

The understanding of genetics



### **Human nervous system**

Structure and function of the nervous system

Brain and the eye

RP7 – investigation into human reaction times



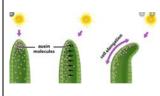
# Homeostasis & response

Control of body temperature and negative feedback

Human endocrine system

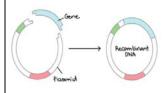
Control of blood glucose concentration

Hormones and human



### **Plant hormones**

Control and coordination RP8 – investigating the effect of light/gravity of germinating seedlings Use of plant hormones



Genetic engineering

Role of biotechnology Cloning



Retrieval practice and examination preparation



**GCSE Examinations** 

reproduction

Water and nitrogen balance

