Biology Learning Journey

Can you predict exam questions?

Can you synoptically link ideas?

1 D. How many photomicrographs can you identify?

1 B. What do we use colorimeters, potometers and respirometers for?

6.6 B. What are the similarities and differences between the Masai Mara and the Terai?

1 E. How do we articulate limitations to A*?

1 C. What is the difference between significance and a statistic?

1 A. How are marks lost on tables and graphs?

6.6 A. What will the Earth look like in 2070?

6.5 A. What is the link between climate change and fish dying in rivers?

6.5 B. Does waterlogged soil favor nitrifying or denitrifying bacteria?

5.7 A. Which form of respiration is more efficient (and does it matter)?

6.3 A. How could gene therapy treat cancer?

6.4 A. Is biotechnology the answer to world food problems?

5.6 B. Which plant pigment has the highest affinity for the stationary phase?

5.7 B. Is ethanol a substrate, product or both?

6.3 B Should we genetically engineer tomatoes to be crush resistant?

6.4 B. Can we make Yogurt in the lab?

5.6 A. Will climate change affect the rate of photosynthesis on Earth?

6.2 B. How can we diagnose genetic diseases?

6.1 B. Why are *Drosophila* widely studied?

5.5 B. Is auxin responsible for apical dominance?

6.2 A. What is the worst genetic disorder that you could inherit?

6.1 A. Suggest 3 ways you can inherit type 1 diabetes?

5.5 A. Farmers use growth hormone every day completely legally, should athletes be able to do the same?

5.4 B. How do we diagnose endocrine conditions from data?

5.4 A. Should type 2 diabetics pay for their treatment?

5.1. A. How do Arctic Frogs survive?

5.2 A. What links kidney failure, strokes, and heart attacks?

5.3 A. What do most drugs affect?

YEAR 13

4.3 A. If it walks like a duck, quacks like a duck and looks like a duck… is it a duck?

5.1 B. Is body temperature consistent across body tissues?

5.2 B. How do we identify regions of the kidney?

5.3 B. How does caffeine affect heart rate in *Daphnia*?

4.3 B. Are all correlations significant?

4.2 B. How can we estimate abundance of plant life?

4.1 B. What is a Zone of Inhibition?

2.6 B. What do the mitotic stages look like?

4.2 A. Does it matter if the Gopher Tortoise, Mangrove-Dwelling Crab, or Sugar Maple Tree go extinct?

4.1 A. Why can't antibiotics treat all diseases?

2.6 A. What are the differences between STEM cells and erythrocytes?

3.2 A. Why doesn't everyone on the UK Heart Transplant List have an artificial heart fitted?

2.5 A. Antibiotics can target cell walls. Why do fewer drugs target cell membranes?

3.3 A. How did Bambi kill this tree?

3.3 B. How do we calculate rate of transpiration?

2.4 .B. How do we control temperature and pH?

3.1 B. How does surface area to volume ratio affect diffusion rate ?

3.2 B. How do we make heart rate data comparable and valid?

2.5 B. How does temperature affect membrane permeability?

2.4. A. Is enzyme inhibition always a bad thing?

2.3 B. How do we extract DNA from cells?

2.2 B. How do we measure glucose concentration?

2.1 B. How do we measure cells?

YEAR 12

2.3 A. Why are Nitrogen and Phosphorus essential in our diet

3.1 A. Which gas exchange structure is most efficient?

2.2 A. What makes up the human body?

2.1 A. How does your body make adrenaline?

welcome

'**Our reality depends on what our biology is up to**' David Eagleman (neuroscientist)