BLOOMFIELD HALL SCIENCE SOCIETY PRESENTS

OLYMPIAD

BHSS PESHAWAR

DRIVEN BY STUDENTS, DEFINED BY SCIENCE

STUDY GUIDE

CORPUS NEXUS

CORPUS NEXUS



Introduction:
What if Biology wasn't just about knowing the answers, but about having the curiosity to uncover them?
This year, Corpus Nexus invites you into an experience where every challenge brings a different way of thinking. Step into the Bio Auction, where knowledge meets strategy and every decision and every bid counts. Enter the laboratory, where an unfamiliar experiment holds a mystery waiting to be unravelled through observation, investigation and scientific reasoning. Navigate a labyrinth of clues, pathways and possibilities, where finding the right connections is just as important as finding the way forward. And put your understanding of biological relationships to the test as you take on the challenge of designing connections of your own.
Each challenge is designed to take you beyond memorised concepts and into the realm of scientific application, where observation meets deduction, knowledge meets strategy, and curiosity leads to discovery.
Here, curiosity is your starting point and logic is your greatest tool!

DAY 1 - THE BIO AUCTION
Step into a competitive auction where biological knowledge and application is your biggest asset. Teams will begin with a fixed amount of BioCoins, which they will use to bid on quiz questions selected from a collection of question cards. Before each question is revealed, competing teams must decide how many BioCoins they are willing to risk. Once the question is unveiled, teams will have a limited time to discuss and formulate their answers. The first team ready to submit will signal using its team-number token. Correct answers will determine how the bids are awarded, making accuracy, speed and strategic decision-making equally important. Teams will face different opponents throughout the competition while retaining their original teammates and carrying their remaining BioCoins forward. The challenge is to know when to take a risk, when to play it safe and how to make every coin count.

DAY 2 - THE GENETIC ENIGMA
In this challenge, participants will take on the role of genetic engineers. They will be given the task of designing an organism capable of surviving a given environmental condition. Participants will also be given scientific claims, in which one will be correct only. Teams will have to identify which claim is correct and use it to genetically design their model. However, genetic modifications may introduce unexpected consequences, such as reduced growth, or inability to photosynthesize. They'll have to defend their choices through biological reasoning and construct an ideal genetic model. As new environmental challenges emerge (a stress condition), previously successful modifications may become disadvantageous, forcing teams to reassess their designs and make strategic adjustments. The ultimate goal is to develop an organism that balances survival, growth and adaptability under changing conditions.

CORPUS NEXUS



DAY 3 - THE LABYRINTH

TASK 1: On this last day activity, teams will receive a case file containing information about an unknown biological problem, along with a limited number of tokens to spend on acquiring additional clues. They must decide which pieces of evidence are most valuable, analyse the information they uncover and use it to determine the most likely explanation. Once they have gathered sufficient evidence, teams will receive a set of pathway cards that must be arranged in the correct sequence. Successfully completing the pathway will reveal a code that allows them to advance to the next stage. This challenge will put their observation, deduction and biological reasoning to the test.

TASK 2: Teams will be presented with reports from multiple laboratories, each containing a series of scientific claims about experimental accuracy, precision and reliability. They must analyse these statements, establish relationships between the laboratories' findings and reconstruct the correct rankings. As the challenge progresses, additional laboratory records will reveal differences in experimental conditions, equipment and procedures, forcing teams to reconsider earlier conclusions. Finally, a seemingly contradictory report will be introduced, requiring participants to investigate its findings and determine whether it genuinely disproves the previous results or simply presents a different basis for comparison. Teams must justify every conclusion using evidence and scientific reasoning.

TASK 3: The final stage will challenge teams to look beyond individual biological concepts and understand how different processes work together. Teams will be presented with a biological system and a particular objective they must achieve under a set of constraints. They will have to examine the available factors, identify which changes could help achieve the objective and construct a logical pathway using the statements provided. However, not every statement or assumption will be correct. Teams must distinguish between valid and misleading information, justify their choices and arrive at a final solution. Each correct assumption will contribute towards a code that must be matched with the final target. This final challenge will reward critical thinking, scientific application and the ability to connect biological processes into one coherent explanation.

DELEGATE CAP : 2