



ARBC Official Rulebook

General Rules

Overview

The ARBC is designed to test students and their knowledge of biology. To ensure a fun and equitable experience for all, cheating is not allowed and any interpretation of the rules that would accommodate cheating is considered an academic honesty violation. Students/Teams who are found to be in violation of ARBC's rules and/or disruptive to the spirit or the orderly function of the competition will have their scores disqualified and be asked to leave the venue.

Team Composition

Teams will consist of 3-4 students. All students must be in grades 8-12. Exceptions will be made on a case-by-case basis. Schools can register at our website (biologycompetition.org). Any questions may be directed to arbcompetition.info@gmail.com. Teams can be changed up to the day of the competition, but once the event has started no team members may be substituted or changed.

Regions

Competitions will take place first regionally. Individual regions may have their own policies so please refer to the discretion and rules released by your home region. Students can compete in both the Online Qualifier and their in-person regional qualifier; however, in the event that they qualify for the National Competition through both qualifiers, they must attend the National Competition with their *in-person regional* team. All teams are encouraged to compete in the region in which they reside. If no such region is applicable, we ask that you send an inquiry about founding a region to arbcompetition.info@gmail.com or try to travel to the nearest or most convenient ARBC regional for you! The top team(s) from regional qualifiers will be qualified to compete in our National Competition held in May. Regional competitions will be held from January to April.

National Competition

The ARBC National Competition is open to those who qualify via a regional competition, whether that be in-person or online. It is of increased difficulty compared to the regional competitions. It is held annually in May online with stringent proctoring and grading methods that ensure academic honesty.

Competition Mechanics

Each competition will be held locally at a venue selected by ARBC. Students are responsible for their transportation to and from the competition. Teams are often supervised by adult(s) in addition to student proctor(s) at the competition.

Competitions will consist of four rounds: Paper, Team, Wave, and Individual. Rounds will likely be administered in that order to ensure recognition of winning teams can be given the same day.

Each round will be weighted to calculate team rankings. The Individual and Team rounds will follow the standard ARBC question distribution with all categories (Molecular, Cellular, and Chemical Biology [MCC], Genetics, Genomics, and Evolutionary Genetics [GGG], Human Anatomy, Physiology and Medical Biology [ANP], Systematics, Bioinformatics, and Integrative Biology [SBI], Ecology, Ethology, and Evolution [EEE]) being weighted equally. For teams of 3 or 4 members, the lowest score from the individual round will not be counted toward the overall team rankings.

Each team round will be given a score out of 100 points based on the percentage of correct answers. For the individual round, the average of all scores (except the lowest score in teams of 3 or 4 which is dropped) will be used. The overall team score used for team rankings is calculated with the following weighting:

$$\text{Overall Score} = (0.30 \cdot \text{Paper}) + (0.25 \cdot \text{Team}) + (0.25 \cdot \text{Wave}) + (0.20 \cdot \text{Indiv})$$

At the end of the competition, top scoring team(s) and/or individual(s) will be recognized and/or given prizes/awards.

Competition Format

Paper Round

Overview:

Format:	1 scientific paper with 5-7 analysis questions, 1 scientific communication with 3-5 questions, and 3-5 synthesis questions
Time Allotted:	50 Minutes
Resources Allowed:	Any calculator. Any published resources. Any notes.

Description:

As a team competitors will be provided with two short scientific papers and will be able to access the internet as well as pre-prepared notes and instruments they choose to bring. Using the internet to communicate with others is strictly forbidden. All communication must be among team members and vocal or visual. Partial credit will be awarded for answers.

Answers should be concise and questions with excessive superfluous writing will be penalized.

Team Round

Overview:

Format: 5-6 passages/figures, 3-6 short answer questions per passage
Time Allotted: 30 minutes
Resources Allowed: Non-graphing, non-programmable scientific calculator

Description:

Competitors will be able to confer with team members. This exam will consist of 5 questions that may be based on a passage or figure, each with 3-6 subquestions. Questions may request answers in the form of True/False with explanation, short responses, or otherwise, but will almost never exceed more than 2 sentences required for answering. Brevity in responses is strongly encouraged.

Wave Round

Overview:

Format: 10 questions, Multiple True False (MTF) Questions
Time Allotted: 30 minutes
Resources Allowed: Non-graphing, non-programmable scientific calculator

Description:

Teams are given IBO theoretical-style MTF questions with 4-5 parts each. Teams must submit each individual question before being able to see the next one. Questions will be administered in order of increasing difficulty (i.e. earlier questions are easier). Each question will use steep MTF grading (e.g. 1.0/0.6/0.2/0/0).

Individual Round

Overview:

Format: 40 questions, Single-select Multiple-choice Questions
Time Allotted: 50 minutes
Resources Allowed: Non-graphing, non-programmable scientific calculator

Description:

Each competitor will take an exam independently of their teammates. This exam will consist of 40 multiple-choice questions with four answer choices per question. Each question will have one correct answer. Conferring with teammates is prohibited and no resources besides a scientific calculator will be permissible.