

2022 Dinosaur Ridge Science Quiz Bowl Rules and Roles

Getting There

The competition will be held at Colorado School of Mines, Golden, CO on Saturday, November 5, 2022. Most of the competition rounds will be held in Marquez Hall (MH) (Arapahoe ST. & 16th ST.) however, check-in /registration will be in the Center for Learning and Technology Media (CLTM) and the final round will be in Metals Hall. Signs will be located on the campus to help direct you to building locations.

Upon arrival park in the Blue "O" lot. Parking is free. Click on the link for directions and campus map. <https://tour.mines.edu/map/>

Schedule

7:00-7:45	Training for timekeepers, scorekeepers (CLTM)
7:45-8:05	Teams and coaches check in (CLTM)
8:10-8:30	Welcome and general address (CLTM)
8:35-9:15	Round 1, Written Round (CLTM)
9:35-10:05	Round 2, (MH classrooms)
10:15-10:45	Round 3, (MH classrooms)
11:00-11:30	Round 4, (MH classrooms)
11:30-12:30	Lunch
12:35-12:40	Announcement of Quarterfinalist teams (MH student lounge)
12:45-1:15	Round 5, Quarterfinals (MH classrooms)
1:30-2:00	Round 6, Semifinals (MH classrooms)
2:15-2:50	Round 7, Finals (Metals Hall)
2:50-3:05	Awards and Goodbyes

Buzzer Modules and Classroom Setup

- We will be using Quiztron 3 buzzer systems. These are the same systems used in Knowledge Bowl. Each buzzer system has 12 hand buzzers, 4 for each of 3 teams, one for each individual; any individual can buzz in to answer.
- All 12 buzzers in each system are connected to a control module.
The reader and timekeeper have the control module in front of them.
The module shows which team has buzzed in first, second, third, etc., and the reader calls on them in sequence until the correct answer is given, or until all teams have given incorrect answers, or until time runs out.

- The buzzer modules do not have a timer. The reader, scorekeeper and timekeeper will be seated in the front of the room. The teams will be seated at three separate tables and generally arranged in a “U” formation.

Competition Rounds, Substance and Scoring

There will be a 30-question written round held first thing in the morning. Following, we will have 3 oral preliminary rounds. If necessary, scorekeepers or timekeepers may be drawn from the parents/coaches within the room.

- After the first 4 rounds (3 oral, 1 written), we will advance the competition to the quarterfinals, a 5th round which will involve only 12 teams. All teams will be able to participate in the first four rounds no matter what. The next round, the 6th round, the semifinals, will involve only 6 teams. Then the 7th round, the finals, will be in Metals Hall and will involve our final three teams.
- In all rounds, approximately one third of the questions will be related to geology. Approximately one third of the questions will be related to paleontology. The last third will be drawn from any other scientific discipline (botany, astronomy, physics, etc.).
- Many questions are from Knowledge Master (Great Auk) from Durango, CO. The Dinosaur Ridge staff is also creating a small number of Dinosaur Ridge-oriented questions.
- If a team gets a question **correct** at any point, it is worth **2 points**.
- If a team **misses a question, and they buzzed the buzzer before the question was finished** being read in its entirety, then the team receives a **-1 penalty**.
- If a team **misses a question, and they buzzed the buzzer after the question was finished** being read in its entirety, then the team receives **0 points but is also not penalized**. • The scorekeeper must abide by the reader’s ruling, only challenging the reader if the scorekeeper believes that the reader has misspoken/spoken in error (meant to say something else).
- The scorekeeper keeps the score on an ongoing basis, on a grid taped to the whiteboard in the classroom settings, for all to see, at all times. The grid will be signed by each team’s coach and given

to the scoring center immediately after each round. (See attached copy of the scoring grid).

Dinosaur Ridge Science Quiz Bowl Scoring Sheet

Round # _____

TEAMS _____

Room # _____

Notes

Question	A	B	C
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Subtotal (110)			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
Subtotal (120)			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
Subtotal (130)			
TOTAL			

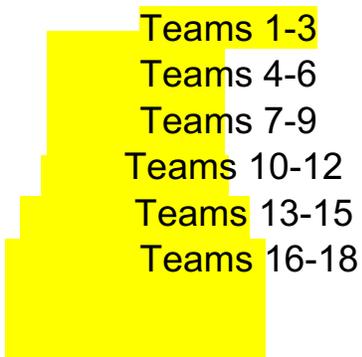
Team A Coach: _____

Team B Coach: _____

Team C Coach: _____

Preliminary Rounds

After the written test (Round 1), teams are sorted into 8 groups based on their score rankings, #1-16. With all teams ranked on the written test, the groupings for Round 2 will be:



- Again, Rounds 2-4 will be oral rounds. After each oral round, the cumulative score of the written round and each oral round will be used to re-rank teams. Thus, for example, if Boulder High School scored 22/30 on the written Round 1, they might be ranked 3rd after the written round and would be placed in the second group. If Boulder then scored 7 on the first Oral Round (Round 2), they would have 29 points total after two rounds. If Vanguard scored 17 on the written round, perhaps they were ranked 7th and in the initial fourth group. However, say then that Vanguard scored 13 in Round 2, and then sat at 30 cumulative after Round 2. They would have a higher score than Boulder, and at that point perhaps the two teams might be ranked 5th (Vanguard) and 6th (Boulder). In such a case, they would square off in Round 3. If the cumulative scoring results in two teams facing off against each other in consecutive rounds, the scoring team may, at their discretion, assign one of the teams to the immediately higher or lower group, switching them with another team, in order to mix up the competition a little more. For example, if after Round 3, teams 7 and 8 are the same as after Round 3, the scorers may move one of the teams up or down one “room” so that teams can square off against as many different opponents as possible during the day.
- The competition continues through Round 4 in this manner, with teams being re-ranked after each round based on cumulative scores and being sent to rooms for the next round based on that ranking.
- Because only cumulative scores matter, it does not matter who wins any individual round in the preliminary rounds, and there will be no tiebreakers within preliminary rounds, even if the scores are even.
- If necessary, tiebreakers for cumulative scores only will be used to seed, or rank, teams every round, by which team did better in the most recent round.
- If the “most recent round” tiebreaker doesn’t break the tie, then going backwards in time (e.g., Round 4 Round 3, then Round 2) will be used until the tie is broken. If in the unlikely case, all rounds are exactly the same score for two tied teams, then the last questions from the written exam will be used, going backwards from the last question, until one team has a question correct and the other incorrect.

Playoffs: Quarterfinals, Semifinals, Finals

After Round 4, the top 12 teams advance to the quarterfinals, the “Playoffs.”

- In the “Playoffs,” scorekeepers, readers, and timekeepers do not include coaches, parents, etc.
- Unlike in the preliminary rounds, protests can be lodged by teams if they believe the reader’s judgment to be incorrect. However, the protest must be lodged almost immediately; before the next question is begun being read. If a protest is not lodged before the next question is begun being read, then the reader’s decision is final. If a protest is successfully lodged, then the reader, scorekeeper, and timekeeper will briefly huddle and the majority opinion regarding the protest will guide the final decision.

Accordingly, a reader’s decision will only be overturned if *both* the scorekeeper and timekeeper disagree with the reader’s decision. In such a case, the reader must defer to the others’ judgments.

- Round 5, the quarterfinals, will include four classroom competitions, including the teams with the following rankings following Round 4:
Room 1: Teams ranked 1, 5, 9
Room 2: 2, 6, 10
Room 3: 3, 7, 11
Room 4: 4, 8, 12

Six teams will advance from Round 5, the quarterfinals, to Round 6, the semifinals:

- All four winners from these four Round 5 competitions, plus:
The other two teams among the Round 5 non-winners with the highest **cumulative** scores between Rounds 1-5.

Round 6, the Semifinals, will feature the 6 teams advancing from Round 5, as determined above. ***At this point, cumulative scores are discarded, and scoring starts afresh.*** The competitors in this round will be as follows:

- Semifinal 1: a) Winner from (Round 5) Room 1; b) Winner from (Round 5) Room 4; c) second highest-scoring non-winning team (cumulative through Round 5).
- Semifinal 2: a) Winner from (Round 5) Room 2; b) Winner from (Round 5) Room 3; c) highest-scoring non-winning team (cumulative through Round 5).
- Three teams will advance from Round 6 to the finals, Round 7:
Semifinal 1 Winner
Semifinal 2 Winner
Highest-scoring non-winning team in Round 6 (non-cumulative, Round 6 score only)

Round 7, the Finals, will take place in Metals Hall.

- The top three teams in the entire competition are simply determined by scores from this round. If a tiebreaker is needed after 30 questions as well as a lightning round (please see below), then there will be three designated tiebreaker questions after the lightning round. The first team to answer one correctly will win the tiebreaker. No penalties or other considerations will apply.

There will be a one-minute lightning round following the 30 question Round 7. Here's how it will work:

- An image will be shown on a large screen and the host will read a short question that relates to the image.
- The first team to buzz in and correctly identify the image is awarded two points.
- If a team buzzes in before the entire question is read, and gives an incorrect answer, they lose a point.
- If no team buzzes in within 5 seconds, the host will say the answer, then go on to the next question.
- The entire round lasts only 1-minute!

Roles of the Competition Volunteer Readers

Other than the single possibility for protests noted above, Readers are in total control of their rooms and the competition in those rooms. *It is imperative that the competition starts as soon as the teams are seated and the Reader has gone over a short, pre-determined list of instructions/tasks. Those instructions will be read every round.*

- If necessary, recruit a scorekeeper from the room (Rounds 2-4 only) (this is routine and someone always agrees to do so).
- Make sure that the timekeeper and scorekeeper are prepared to start the round before reading the first question.
- Encourage the teams to get seated quickly and ask and make sure that the student teams are prepared to start the round before reading the first question.
- Remind all students to put away and silence all electronic devices, and for observers to silence electronic devices.
- Remind the observers in the room that no verbal or electronic noise should emanate from the observing audience, nor will mouthing of answers be tolerated, even if inadvertent. Violation of any of these standards may result in the dismissal of an audience member from the room.
- Remind the team members about not speaking to one another or communicating by paper. Violation of these rules or the rules about electronic devices may, at the reader's discretion, result in the dismissal of a team member or in an extreme case, an entire team, from that round, with a score

for the round of what was achieved when the team was dismissed, and in case of an individual dismissal, the team must complete the round with three team members

- Remind the team members that the only certainly allowable answer is the answer on the answer key available to the reader, and that it is entirely in the reader's discretion as to whether to accept alternative answers, though the Readers have been trained to be as consistent as possible with each other with respect to answers that are not exactly as written on the answer keys.

There will be no appeals beyond the Reader in the preliminary rounds. Higher level appeals will only be allowed in the "Playoff" rounds.

- After every 10 questions (Question 10, and Question 20, and the conclusion of the round), the reader will stop reading and ask for a scoring update, which the scorekeeper then gives verbally to apprise everyone in the room of the ongoing score.

During rounds, Readers:

- Announce "correct, 2 points" or "incorrect, -1" or "incorrect, 0" for each answer.
- Read next questions immediately (within a few seconds) after announcing "incorrect" or "correct" for prior question.
- Will not re-start questions following a question that is interrupted with a buzzer, and the team is wrong, the reader will start where they left off with the early buzzer. If no teams buzz within approximately three seconds of the completion of a question, the Reader will read the question a second time.
- If time elapses without a response from any team, the reader says, "The correct answer is", then gives the correct answer and proceeds to the next question.
- Can throw out questions on which they've made a mistake or when there's been a significant interruption; there will be a limited number of additional questions on each question list to make this possible.
- Must ask for a scoring update after 10 questions and after 20 questions and at the round's conclusion.
- Should stop mid-sentence or mid-word if a buzzer is buzzed before the question is finished being read.
- Should always remind the scorekeeper to get the round results to the cumulative scoring team ASAP after a round. This timing is crucial to keeping the event on schedule.

Scorekeepers

- In the preliminary rounds, **readers may recruit someone from the parent/coach ranks first thing each round to be a scorer, if not enough volunteers are available to be scorekeepers.**

- Scorekeepers will keep track of scores on a scoring grid that will be posted on a whiteboard in the classroom.
- After every round, team coaches should sign the scorekeepers' scoresheets before the scorekeepers bring the scoresheets to the Cumulative Scoring Team. Scorekeepers and Readers both should make sure that coaches do this every round. Scorekeepers must at once deliver score sheets to the Cumulative Scoring Team as soon as the coaches sign the score sheets.
- These instructions need to be conveyed to scorekeepers by readers; we will have "cheat sheets"/task lists available for scorekeepers to remind them of their responsibilities.

Timekeepers/Timing

Written Round Timing (only one timekeeper):

- Teams work together to answer questions during this first round.
- The timekeeper will announce to the entire auditorium, all teams, when there are 15 minutes left in the round, 5 minutes left in the round, and one minute left in the round. The timekeeper will also announce the end of the round.
- Answer sheets will be collected (and immediately scored) immediately following the announcement of the end of the round.
- There are no buzzers in the written round.

All Oral Rounds (2-7): Time Limits to Answer Questions/Reading Full Questions, and Other Protocols

All timekeepers will be given a handheld timing device on the morning of the competition. **Timers begin their timing at five different possible points;** timekeepers are expected to strictly enforce these time limits to ensure event consistency and integrity.

- 1) If the buzzer is buzzed before the end of a question, the buzzing team has 5 seconds to finish their answer. The timer should immediately start the timer to count to 5 seconds.** After 5 seconds have elapsed, the timekeeper will loudly announce "Time!"
 - The reader always stops reading—even mid-word--as soon as a buzzer is buzzed.

Once the buzzer is buzzed, the timekeeper calls out the team's letter (A, B, C, as visibly designated on the buzzer module).

- Such designation needs to happen before each round for the teams; the reader, scorekeeper, and timekeeper should familiarize themselves with the buzzing module and which teams are Teams A, B, and C.
- In general, if the buzzing team in this scenario does not *complete their answer* before the timekeeper says “Time!” then their answer is incorrect, and they lose a point. More detail on this below.

- 2) If the earliest-buzzing team in #1 above is incorrect, then another team that buzzes in, or has already buzzed in according to the module, will then also have 5 additional seconds. The reader calls out the second team and the timer should then immediately start the timer to count to 5 seconds.** After 5 seconds have elapsed, the timekeeper will loudly announce “Time!” If the buzzing team in this scenario does not complete their answer before the timekeeper says “Time!” then their answer is incorrect, and they lose a point. More detail on this below. If 1 or 2 teams are early buzzing and incorrect, then the reader will continue to finish reading the question after the missed answer(s).
- 3) Once a question is finished being read a second time, teams that have not already buzzed have 15 seconds to buzz. Accordingly, once a question is finished being read a second time, if there has been no buzzing, the timekeeper should start the timer counting up to 15 seconds after the end of the question.** After 10 seconds have elapsed, the timekeeper will loudly announce “5 seconds!” and then “Time!” after the full 15 seconds have elapsed. If no team has buzzed by the time the timekeeper announces “Time!” then no team will get credit for the question, nor a -1 penalty, and the reader will simply move on to the next question.
- 4) Once a team has buzzed after a fully read question, they will then have 15 seconds to answer. The timer should start their timer counting to 15 seconds.** Again, after 10 seconds have elapsed, the timekeeper will loudly announce “5 seconds!” and then “Time!” after the full 15 seconds have elapsed. If 15 seconds have elapsed and the timekeeper announces “Time!” then the answer will be counted as incorrect *if the answer is not completed*. More detail on this below.
- 5) It is possible for a question to be fully read, and then a team buzzes in and is given 15 seconds, and that team misses the question and a second (or third!) team buzzes in. Each new buzz after a question is fully read, the team buzzing in gets a new 15 seconds,** and the same process is followed as above. So, to be clear, Team A could buzz in 14 seconds after a question is read, and then miss after 14 seconds. Then another 15 seconds would start for teams B and C to answer, and so on.

*One easy “hack” to thinking about the timing rules is that the buzzer is set to 5 seconds for buzzes that come in before the answer is finished and is set for 15 seconds for buzzes that come in after the question is finished.

Other Rules/Clarifications

- Masks are optional. If a participant chooses to wear a mask, it is their responsibility to speak louder and clearly so their answers are understood by the Reader.
- Team members are never allowed to speak to one another during competition time, including to decide who will answer a question. They may use other nonverbal, non-written signals such as hand gestures to decide who answers the question.
- Other than questions involving math functions, teams may NOT write notes during the oral round competition; this is considered the same as oral consultation. Teams should be given scratch paper and pencils before each round (one for each contestant), as some answers may require brief math work. They can use scratch paper to figure a computation question or a palindrome or something similar, but they cannot write notes to each other. Team members who are NOT performing a computation MUST NOT watch a teammate who is doing a computation, as this is also considered inappropriate consultation.
- No resources (e.g., books/notes) are allowed to be referenced.
- There will be no separate divisions based on school size. All participating schools will compete against each other regardless of size.
- During the competition teams will wear the T-shirts provided by Dinosaur Ridge. All other apparel must be free of distractions including political viewpoints or offensive language. Readers have the discretion to request clothing be replaced with acceptable apparel.
- For answers to count as correct, they must be clearly stated and audible—if the Reader cannot understand the answer, the answer will be deemed incorrect.
- Electronic devices must be put away completely during each competition round. This includes electronic watches.
- Answers cannot be changed at all; the first words spoken become part of the answer and cannot be retracted.
- Readers are only required to accept answers as they are exactly shown on the answer page. Within a standard of “limited discretion,” Readers may deem other close answers as acceptable; however, this is entirely in the Readers’ discretion. Readers are trained to allow and disallow similar discretionary answers, though precise consistency cannot be guaranteed. In general, however, simple mispronunciations of answers by teams should not be counted as a wrong answer. In all cases until the quarterfinals, the ruling of the Reader will be final. Readers are allowed to consult with the timekeeper if desired about a questionable answer, but such is not required.

- If there is a “chorale” response (multiple team members from the same team responding simultaneously) then the answers need to be both consistent and correct to be counted as correct; one incorrect and one correct answer stated simultaneously is counted as incorrect. Accordingly, if anything stated is incorrect, the answer is incorrect.
- Coaches should keep an eye on our website for additional information or changes (i.e., inclement weather plans, rules updates).

You can find our link here:

<https://dinoridge.org/event/2nd-annual-dino-ridge-high-school-science-quiz-bowl/>

More detail on answering within 5 or 15 seconds: In all cases, answers *must be started* within 5 seconds or 15 seconds, depending on the situation as spelled out above. The answer does not need to be *finished* within the same time frame (5 or 15 seconds), however, as long as there is no notable pause in the answer. *If there is a notable pause during the answer, and the end of the answer is more than 5 or 15 seconds,* as relevant, then the answer should be counted as incorrect.

For instance:

- a. if the answer to a question was “Tyrannosaurus rex” and the team buzzed in early (and so had 5 seconds to answer), and said “Tyrannosaurus” within 4 seconds, paused for 3 full seconds, and then said “rex,” then that answer should be treated as incorrect because there was a notable pause and it took more than 5 seconds to give the full answer.
- b. On the other hand, if the answer is “Tyrannosaurus rex” and the answer starts being given just before the 5 second mark and finishes just after the 5 second mark, with no notable pause, then the answer should be counted as correct.
- c. Finally, if there is a notable pause, but the answer is fully given before 5 seconds, then that answer should be allowed as correct. Such would be the case if the answerer said “Tyrannosaurus” after 1 second and then “rex” 3 seconds later, getting the whole answer in within 5 seconds even though there was a notable pause.

The bottom line is that if there is **both** a notable pause and the answer takes more than 5 seconds, then the answer should be considered incorrect. An answer that takes slightly longer than 5 seconds, with no notable pause, should be counted as correct.