Prior to Competition:

• Graders help review all Team Challenge Questions before the competition, they contribute to needed edits and review grading metrics as organized by the Regional Coordinators.
• Graders are asked to communicate with their fellows and agree on a quick, consistent and equitable grading plan for each question.

During Competition:

1. Graders work in seclusion, away from the competition. Different graders represent expertise in different fields of the marine sciences and have references and/or internet available for corroborating answers.

2. Graders determine the most efficient strategy for grading questions quickly, accurately and consistently. They may work in subject teams to grade questions in those fields, depending on the complexity of the grading metrics. To assure consistency in grading, the same team usually grades all answers for a particular TCQ. There are 2 TCQs to grade per round.

3. After receiving the TCQs from a competition room, graders complete grading the answers from both teams. As questions are graded, graders fill out a Scoresheet for each match room. The Runner or Science Judge from each room takes the scoresheet back to the room to announce the scores.

4. Assist in settling Scientific Challenges, Judges “Appeals”
   If the Science Judge & officials from a competition room cannot settle a scientific challenge by one of the teams, the Science Judge will confer with TCQ graders and/or use their reference materials to corroborate an answer. There are no “appeals” for answers or grades from TCQ grading.

5. TCQ Graders need to remain in the assigned grading room throughout the competition so that they can always be located to resolve challenges. With RC and Head Rules Judge permission, they may observe Trophy Rounds, but must sit together and be ready to exit quickly to grade TCQ questions or resolve scientific challenges.
The Team Challenge Questions have been reviewed by at least two individuals with subject expertise in an effort to eliminate erroneous or ambiguous questions. However, it is important for graders at each Regional Competition to review questions and recommend edits that are necessary for clarity and/or accuracy of the questions, as well as the acceptable answers. These edits are submitted to the RC, who collates and submits all TCQ edits to NOSB for consideration.

**Pre-Competition Question & Metrics Review**

*You will be provided with the bank of TCQs for your competition in advance of the actual event. It is important that you review all the questions before the competition and meet with the Regional Coordinator(s) and other TCQ graders to ensure question clarity and accuracy. Questions cover physical, chemical, geological & biological oceanography, as well as technology. They can include math, interpretation of graphs, recognition of marine life diversity or anatomy, short essay answers. *The Regional Coordinator(s) will collate all TCQ changes needed to fine-tune the questions and submit them to NOSB for consideration. NOSB will issue final versions in advance of the Bowl date.*

*The Coordinator(s) will share TCQ grader contact information and area of expertise with graders from both VIMS & ODU so that members of the grading team can communicate.*

*You are responsible for conferring with fellow TCQ graders at both institutions to review the grading metrics (answer & point assignment) provided by the question author. By mutual agreement, graders develop a quick, consistent and equitable grading plan for each question. You need to be able to evaluate partial work or methodology, in addition to the correct answer(s).*

*If you have questions or concerns, you contact the Regional Coordinator at your institution.*

**Competition Responsibilities**

1. **Your primary duty as a Blue Crab Bowl Team Challenge Question Grader is to review and grade answers to the TCQs in your field as quickly, accurately and consistently as possible.**

2. Graders work in seclusion, away from the competition rooms. The Regional Coordinators will attempt to provide the TCQ Grading Room with internet access, as well as diverse reference texts in the event that you need to cross reference question content or student answers for acceptability. You are encouraged to bring your favorite reference materials.

3. Graders work together to determine the most efficient strategy for grading questions as quickly, accurately and consistently as possible. There are 2 TCQs from per round, 2 teams in each match will write answers to both questions.

   • Some TCQ teams prefer to have topic specialists grade all questions in their field, e.g. biological oceanographers grade all biology-oriented TCQs, physical oceanographers grade physical science questions, etc.

   • In other cases, the grading metric may be so clear-cut that any/all graders can contribute to grading a question. The most important factor in grading will be accuracy and consistency.

   • When possible, the BCB Head Rules Judge will assist TCQ graders by coordinating the distribution of questions for grading as they are delivered by Match officials.

   • Number of questions to grade:

      • Rounds 1-5, there will be 16 answers for each TCQ x 2 TCQs = 32 answers to grade.

      • Beginning Round 6, teams are eliminated and there are fewer answers to grade.
4. For each competition match, **TCQ graders complete a scoresheet** (see below) that includes the individual and total TCQ scores for the two teams competing in that match. See example below.

**ONLY the scoresheet is returned to the competition room** with the room’s Science Judge or Room Runner. The teams’ TCQ answer sheets remain in the Grading room and are turned in to the RC at the end of the day.

5. The **TCQ graders also assist if there are challenges to the scientific answers** for toss-up questions.
   - If a challenge arises which is outside the fields of the officials in a competition **OR**
   - If a student issues a 2nd challenge, the competition room’s Science Judge will come to the TCQ Grading/ Judges' Appeals Room to discuss the Challenge with specialists in the field, or to use reference books or internet access to corroborate an answer.

6. **TCQ Graders need to remain in the assigned grading room** throughout the competition so that they can always be located to resolve challenges.

   With permission from the Regional Coordinators and Head Rules Judge, they may observe Trophy Rounds. But, TCQ Graders must sit together so they are easily located and should exit the competition room quickly, returning to the grading room to grade TCQ questions or help resolve scientific challenges.

---

**Example**

**Team Challenge Questions**

**Scoresheet**

<table>
<thead>
<tr>
<th>ROUND Number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOM Number/Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>School:</th>
<th>School:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCQ-1</td>
<td>TCQ-1</td>
</tr>
<tr>
<td>TCQ-2</td>
<td>TCQ-2</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>