



**BESTMania Skills Quiz Rules**  
**26 August 2020**

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## Section 1 BESTMania Skills Quiz

BESTMania Skills Quiz is a required activity of the Outbreak Online Competition.  
BEST Mania Skills Quiz is an optional activity for Outbreak Hub Competition or Outbreak Classroom Competition.

### 1.1 Schedule

1. BESTMania Skills Quiz will run weekly from Saturday midnight through Thursday midnight.
2. The weekly quizzes will run for 13 weeks, starting September 13<sup>th</sup> and ending on Dec 10<sup>th</sup>.
3. Students will ONLY be able to login between their hub Kickoff date and Game date, as defined in the BEST National Registry. Students will not be able to login from Thursday midnight through Saturday midnight.
4. The weekly games will be setup and opened by BRI/Mathzing. Hubs will not need to do anything regarding setup or collection of results.

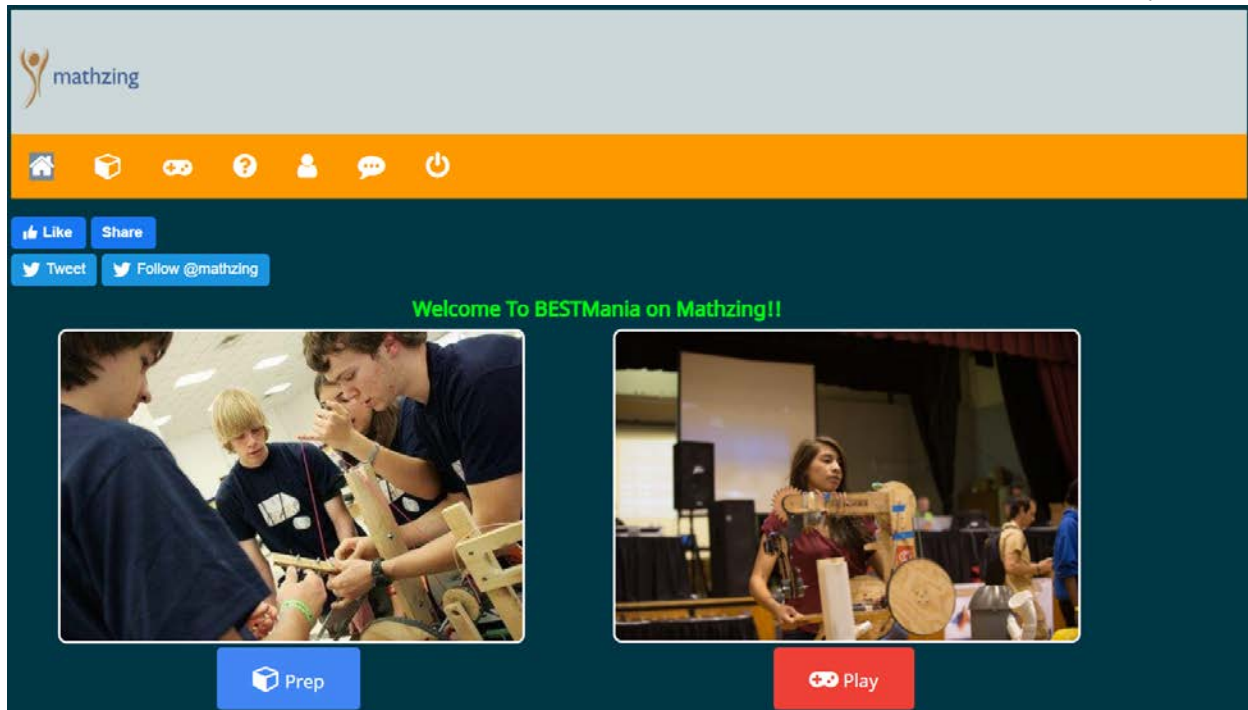
### 1.2 Criteria for Game Play

1. Students will login to the system with their BEST National Registry Team Workflow credentials. The credentials are setup by the parent when registering the student and can be modified at any time under the student profile.
2. There is no limit to the number of students on a team that can participate each week.
3. Each student can work at his or her own pace on either component (Game Play or Prep).
4. Students will only be able to login to games during their competition period (from Kickoff to Gameday).

### 1.3 Weekly BESTMania Games

There are 2 components in BESTMania: Game Play and Prep

- a. New games are opened for Game Play each week on the schedule mentioned. A game consists of 24 unique problems per player and is the primary method for collecting points. A maximum of 40,000 points can be collected weekly during Game Play.
- b. Prep is a secondary method for collecting points and is based on Mathzing's SAT Math/Grade 8 content using an Adaptive Prep algorithm. A player can attempt as many problems as desired. Progress in Prep will contribute up to 20,000 points to the weekly game.



### 1.3.1 Game Play Component

1. In game play, each participant is presented with a different set of problems (from the available pool). Problems are randomly selected and may come from many different categories such as:
 

a. BEST History	f. Writing/Grammar
b. BEST Rules	g. Programming/Coding
c. Robot Mathematics	h. Project Management
d. Physics	i. And Others
e. Mechanics	
2. All problems are written in the context of an activity or skill that the student might encounter during the BEST Robotics Competition.
3. Each player receives 24 unique problems in each weekly game. The same distribution of difficulty is used in selecting the problems for each player.
4. Each problem is multiple-choice and contains a point deduction scale based on time required to answer. The answer timer begins when a problem page is first viewed.
5. Problems can be viewed in any order desired and students can move freely between problems.
6. 0 points are awarded for incorrect answers.
7. A maximum of 40,000 points can be accumulated for 24 correct answers during the weekly Game Play component.

### 1.3.2 Prep Component

1. Prep component is based on Mathzing's renowned SAT Math/Grade 8 content.
2. Problems are delivered one at a time during Prep.
3. Problems can be skipped with no penalty.
4. Any number of problems can be attempted.
5. There are no time penalties in Prep.
6. The Prep component has an Adaptive Prep algorithm for delivering problems, which means that each student's results are dynamically analyzed, and problems are selected for areas where the student may be weaker, to help improve their overall skill level.
7. Correctly answered problems in Prep can add up to 20,000 additional points for the BESTMania weekly game.

### 1.4 Scoring

1. Each problem is rated as easy, medium, hard in level of difficulty. Therefore, problems have a different possible point value based on their complexity. An equal distribution of difficulty is used for each player, each week.
2. Each game will have a maximum number of points that can be scored/accumulated. 40,000 points for Game Play component and 20,000 points for Prep component.
3. The number and complexity of problems may vary by participant but the total points possible will be the same.
4. Point penalties are incurred for length of time after the allotted answer time. Maximum of 25% penalty. A penalty scale will be provided.
5. Both active Game Play and Prep components contribute to the weekly player's score.

The screenshot shows a web interface for BESTMania Skills Quiz. At the top, there is a navigation bar with icons for home, search, help, user profile, chat, and power. Below the navigation bar, there are social media buttons for Like, Share, Tweet, and Follow @mathzing. The main heading is "Let's Play BESTMania II".

**Current Games: 1**

Game Name	Game Start Time	Game Expiration Time	Game Status	Play Status	Players Progress	Play Solutions	Play Points
MyGame22	Fri., Aug. 28, 2020, 9:00 AM CDT	Sun., Aug. 30, 2020, 9:00 AM CDT	Active	<a href="#">Play</a>	<a href="#">Live Results</a>	<a href="#">Solutions</a>	<a href="#">Points</a>

**Upcoming Games: 1**

Game Name	Game Start Time	Game Expiration Time	Game Status	Play Status	Players Progress	Play Solutions	Play Points
MyGame2	Mon., Aug. 31, 2020, 6:00 AM CDT	Wed., Sep. 2, 2020, 6:00 AM CDT	Inactive	----	----	<a href="#">Solutions</a>	<a href="#">Points</a>

**Past Games: 9**

Game Name	Game Start Time	Game Expiration Time	Game Status	Play Status	Players Progress	Play Solutions	Play Points
MyGame21	Tue., Aug. 25, 2020, 10:48 PM CDT	Thu., Aug. 27, 2020, 10:48 PM CDT	Expired	----	----	<a href="#">Solutions</a>	<a href="#">Points</a>
MyGame20	Tue., Aug. 25, 2020, 7:00 PM CDT	Tue., Aug. 25, 2020, 10:36 PM CDT	Expired	----	----	<a href="#">Solutions</a>	<a href="#">Points</a>
MyGame19	Mon., Aug. 24, 2020, 10:00 PM CDT	Mon., Aug. 24, 2020, 10:54 PM CDT	Expired	----	----	----	----
MyGame16	Sun., Aug. 23, 2020, 7:30 PM CDT	Mon., Aug. 24, 2020, 10:07 PM CDT	Expired	----	----	----	----
MyGame17	Sun., Aug. 23, 2020, 11:00 PM CDT	Mon., Aug. 24, 2020, 12:25 AM CDT	Expired	----	----	----	----
MyGame18	Sun., Aug. 23, 2020, 11:15 PM CDT	Sun., Aug. 23, 2020, 11:35 PM CDT	Expired	----	----	----	----
MyGame15	Thu., Aug. 20, 2020, 7:40 PM CDT	Sun., Aug. 23, 2020, 7:06 PM CDT	Expired	----	----	----	----
MyGame14	Mon., Aug. 10, 2020, 11:32 PM CDT	Sun., Aug. 16, 2020, 11:47 PM CDT	Expired	----	----	----	----
MyGame13	Mon., Aug. 10, 2020, 11:15 PM CDT	Wed., Aug. 12, 2020, 12:04 AM CDT	Expired	----	----	----	----

At the bottom of the interface, there are two buttons: [View Leaderboards](#) and [View Points/Badges](#).

## 1.5 Game Twists and New Features

1. New features and Game Play scoring twists may be introduced as the season progresses. These twists will be explained in detail before the game begins. Typically, only one twist will occur in a weekly game.
2. Such scoring twists may affect the point scale for players but it will be applied equally for all players in the game.

## 1.6 Leaderboard/Rankings

1. Every player will see their score on the BESTMania leaderboard instantly after they complete the game. Results, answers, penalties, (feedback) etc. will not be shown until AFTER the game time expires.
2. The leaderboard is always viewable, whether a player is currently participating in a game or not.
3. Results are available via a best of the best leaderboard. The top 3 scores per school are used for final overall rankings for hub and region.
4. Badges are awarded for players reaching predetermined point thresholds over time. The badges encourage week to week participation.
5. Judges login to retrieve final scores/rankings using their BEST National Registry credentials.

For Your School/Team  By Total Points  For All Games  [Refresh Leaderboard](#)

[Players](#) | [Teams](#) | [BOB](#) | [Hubs](#)

### Players Leaderboard

Sort Criteria: For Your School/Team & By Total Points & For All Games

Rank	Avatar Name	Hub	Play Points	Play Questions	Prep Points	Prep Questions	Total Points	Total Questions	Points Level	Badge Level
1	QueenBee	Capitol BEST	11000	16	4500	7	15500	23	0	Green
2	XenaWarrior (Self)	Capitol BEST	9950	14	2000	4	11350	18	0	Green
3	Superman	Capitol BEST	2350	9	4500	10	6850	19	0	Green
Total	3 Players	-----	22700	39	11000	21	33700	60	-----	-----

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### Schools Leaderboard

Sort Criteria: For Your School/Team & By Total Points & For All Games

Rank	School	Players	Play Points	Play Questions	Prep Points	Prep Questions	Total Points	Total Questions
1	Bogus High School (My School/Team)	3	22700	39	11000	21	33700	60
Total	-----	3	22700	39	11000	21	33700	60

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### BOB (Best Of the Best) Schools Leaderboard

For BOB, points of upto 3 top players are selected for each School/Team for the given sort criteria

Sort Criteria: For Your School/Team & By Total Points & For All Games

Rank	School	Players	Play Points	Play Questions	Prep Points	Prep Questions	Total Points	Total Questions
1	Bogus High School (My School/Team)	3	22700	39	11000	21	33700	60
Total	-----	3	22700	39	11000	21	33700	60

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### Hubs Leaderboard

Sort Criteria: For Your School/Team & By Total Points & For All Games

Rank	Hub	Players	Play Points	Play Questions	Prep Points	Prep Questions	Total Points	Total Questions
1	Capitol BEST (My Hub)	3	22700	39	11000	21	33700	60
Total	-----	3	22700	39	11000	21	33700	60