

Utah County 4-H STEM Bee

Rules and Guidelines

2021

The Utah County 4-H STEM Bee is an opportunity for youth to demonstrate their intellectual knowledge in the areas of Science, Technology, Engineering, and Mathematics. The STEM Bee consists of two parts. The first part is an online qualification assessment completed by youth at school or home based upon their educational setting. For those who qualify, the second part is an in-person* elimination and finals competition.

Youth are strongly encouraged to study or refresh their knowledge in the various science; Earth, Physical, Astronomy, Physics, and so forth, as well as people of science. In addition, youth should be prepared for questions regarding different types technology, computer science concepts; including coding topics, advances in technology over time, and people of technology, engineering, and mathematics. Mathematics topics will cover expectant levels of knowledge for the age division.

Event Dates:

Online qualification is open from February 1 – February 15, 2022

Finals Competition will be March 12, 2022

Location: Utah County Extension & 4-H Offices
1426 E 750 N Suite 202 Orem UT 84097
385.268.6531

Age Categories

Finalists will be chosen from the grade groups:

Youth attending traditional schools:

- 3rd – 5th grade
- 6th – 8th grade

Youth attending *homeschool:

- Ages 8-10
- Ages 11-13

*Homeschool youth must be within the age category as of September 1, 2021.

Eligibility

Any youth residing in Utah County attending a traditional public, charter, or private school or enrolled in a homeschool in Utah County and who fit the designed age categories may enroll to participate in the 4-H STEM Bee.

How to Enroll

*The in-person competition is dependent upon USU approval and health guidelines at the date of the event. Until noted otherwise by Utah and USU health and safety departments, Utah County 4-H will continue to require masks at all in-person gatherings.

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Rules and Guidelines

2021

To participate youth or their teachers or guardians should complete the registration form.

Qualification for Finals

All enrolled youth will complete an online qualification assessment for their age division. All scores are ranked from highest to lowest with the top 15 scores in each age category receiving an invitation to participate in the finals.

Qualification Assessment

The Knowledge Test is open from February 1 – February 15, 2022. Contestants will be notified of their qualification placing March 1, 2022.

Youth are expected to complete the timed assessment without assistance in one sitting during the time allotted.

Finals

Qualifying youth will participate in an in-person multi-round bee that will consist of a question-answer series of group, individual, and toss-up questions. There will be two rounds. The "Elimination Round" and the "Champion Round".

Elimination Round:

The 15 age division participants will take part in a 3-round series of STEM questions according to the following schedule:

Round 1: Group response. Each participant will respond to the same question. Youth with correct responses will earn 1 point. Youth with incorrect responses will earn a -1 point.

Round 2: Individual response. Each participant will respond to a unique question. Youth with correct responses will earn 1 point. Youth with incorrect responses will earn a -1 point.

Round 3. Toss-up response. Participants will "buzz in" to respond. The participant that buzzes in first will have the opportunity to respond to the question for 1 point for a correct response or -1 point for an incorrect response. Non-responders will not gain or lose points.

At the close of each round the total point for the round will be calculated for each participant. All scores from all three rounds will be tabulated for a final score. The top 5 final scores will move onto the champion's round.

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2021

Champions Round:

The final 5 participants in the champions round will take part in a 3-round series of STEM question as outlined above.

At the close of the three rounds the participant with the highest score is declared the STEM Bee champion. In addition, a reserve champion and third place prize will be awarded.

Awards

Awards for both age/grade categories are as follows.

First Place – prize valued up to \$100

Second Place – prize valued up to \$75

Third Place – prize valued up to \$50

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