



2019-2020

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To whom it may concern:

The Ozark Chapter of the Missouri Society of Professional Engineers is proud to sponsor the Thirty-First Annual Model Bridge contest for Southwest Missouri students. The contest will be conducted the evening of Wednesday, March 25th, 2020 in conjunction with the Ozarks Science and Engineering Fair at the Hammons Student Center – MSU (731 Bear Boulevard), Springfield, MO. Testing of the bridges will begin at approximately 5:00 PM and the check-in process will end at 6:30 PM. The event is intended to challenge the participants’ skills in applied physics and mathematics, as well as model building.

Each contestant will design and construct a basswood bridge conforming to the published rules. **Please note that the rules have been modified and the maximum bridge mass is 20 grams.** On the day of the contest, each student will have his bridge loaded to failure. The winners will be determined as outlined below. The rules as well as the results of and some photos from the 2019 competition can be viewed on the MSPE Ozark Chapter web page at: <https://mspe.org/Model-Bridge-Contest>.

There will be a \$5.00 entry fee per bridge. This fee is applied towards the cost of the bridge kits and prizes.

Please note that additional participant divisions have been created, as follows.

Division	Description	Prizes	International Contest Eligible	Rules
Middle School (Grades 5 – 8)	Students currently enrolled in grades 5 – 8, or home school equivalent.	1 st place - \$30 2 nd place - \$20 3 rd place - \$10	No	Current published rules with the exception that the winners will be determined by maximum failure load; not by efficiency
High School (Grades 9 – 12)	Students currently enrolled in grades 9 – 12, or home school equivalent, or 8 th grade students enrolled in a high school accredited science or math class for high school credit.	1 st place - \$125 2 nd place - \$100 3 rd place - \$75	1 st and 2 nd Place finishers eligible to compete	Full, current published rules; no modifications
Teachers & Sponsors	Teacher or Sponsor with a student competing in either the Middle School or High School Division	1 st place - \$50	No	Full, current published rules; no modifications
College Engineering Students & Teachers	Students enrolled at a college with an engineering major declared & teachers at colleges with classes leading to an engineering degree	1 st place - \$75	No	Full, current published rules; no modifications
Engineers	Members of the Missouri Society of Professional Engineers	PRIDE	No	Full, current published rules; no modifications

Participants need not be present to compete in the contest. The completed bridges, entry forms, and Media Waiver Forms (to follow later) may be delivered to the competition by a representative of the school or via mail.

Additional details and information as well as an order form will be mailed to area science departments in early January 2020. Orders should be turned in as soon as possible thereafter, as they will be filled on a first-come, first-served basis. Bridge kits will be distributed in late February.

There are multiple resources available on-line for information regarding model bridge construction. The following list is not in any way intended to be all inclusive; it is just a few of the ones we have discovered.

MSPE Model Bridge Contest Homepage:	https://mspe.org/Model-Bridge-Contest
MSPE Ozark Chapter Homepage:	https://mspe.org/ozark-chapter
MSPE State Homepage:	https://www.mspe.org
Time lapse contest example video (Produced and Provided by Ryan Carlton):	http://www.youtube.com/watch?v=clHqbMBdn_E
Slow motion video of bridge failures from contest (Produced and provided by Ryan Carlton):	https://www.youtube.com/watch?v=TSWUpJmE4vl
Wood working tips (Produced and provided by Ryan Carlton):	https://www.youtube.com/watch?v=Y6KA-cdEqjM
Information for contest from earlier contest (Produced and provided by Ryan Carlton):	https://www.youtube.com/watch?v=KV1_UT02sQU
International Model Bridge Contest:	http://bridgecontest.phys.iit.edu
Model Bridge Lecture & Tutorial:	https://www.youtube.com/watch?v=iNaL0Zlz2ow&feature=youtu.be
Model Bridge design web page:	http://www.garrettsbridges.com
John Hopkins virtual Bridge Program:	https://ei.jhu.edu/bridge-designer/

Your past participation and support is appreciated. If you have any questions, need additional information, or know of anyone who desires to be added to our mailing list, please forward this information or contact me at (417) 886-7171. Alternatively, I can be reached via e-mail at OzarkModelBridge@gmail.com.

Sincerely,



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