**K’Nex Bridge Competiton**

**Rules**

• Structures must be submitted to the judges unassembled.

• All parts for the bridge must be commercially available K’NEX rods, spacers or connectors only. No panels, gears, cables, or strings may be included in the structure.

• All parts for the bridge must be contained in a zip-lock bag that is no larger than 12 inches by 12 inches. The bag must be sealed and labeled with the school’s name and the names of the team members.

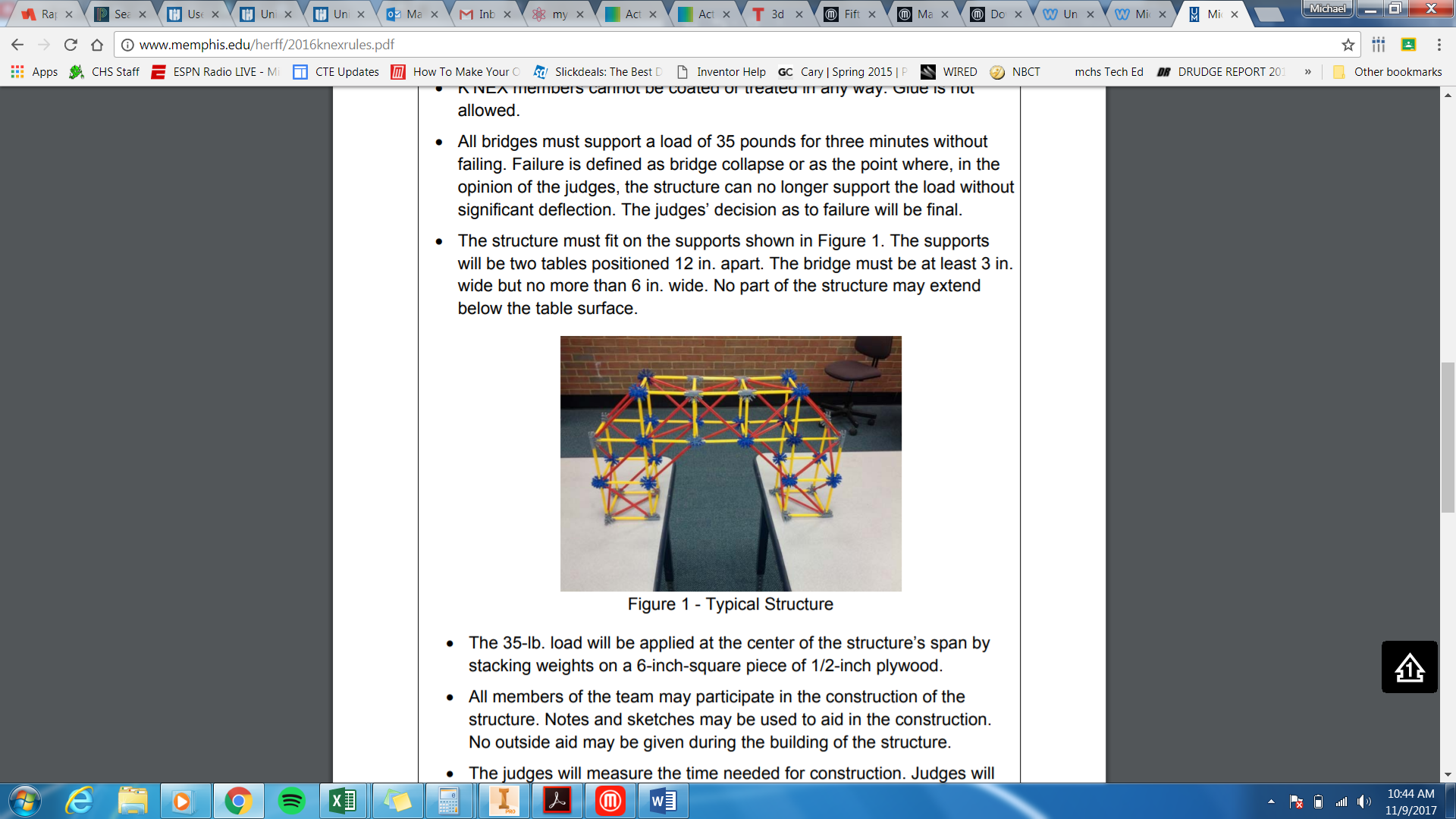
• The mass of the bridge will be determined when it is submitted and will include the mass of the bag and any labels attached to the bag.

• After the bridge’s mass has been determined, no pieces may be added to those submitted in the zip-lock bag.

• K’NEX members cannot be coated or treated in any way. Glue is not allowed.

• All bridges must support a load of 35 pounds for three minutes without failing. Failure is defined as bridge collapse or as the point where, in the opinion of the judges, the structure can no longer support the load without significant deflection. The judges’ decision as to failure will be final.

• The structure must fit on the supports shown in Figure 1. The supports will be two tables positioned 12 in. apart. The bridge must be at least 3 in. wide but no more than 6 in. wide. No part of the structure may extend below the table surface.

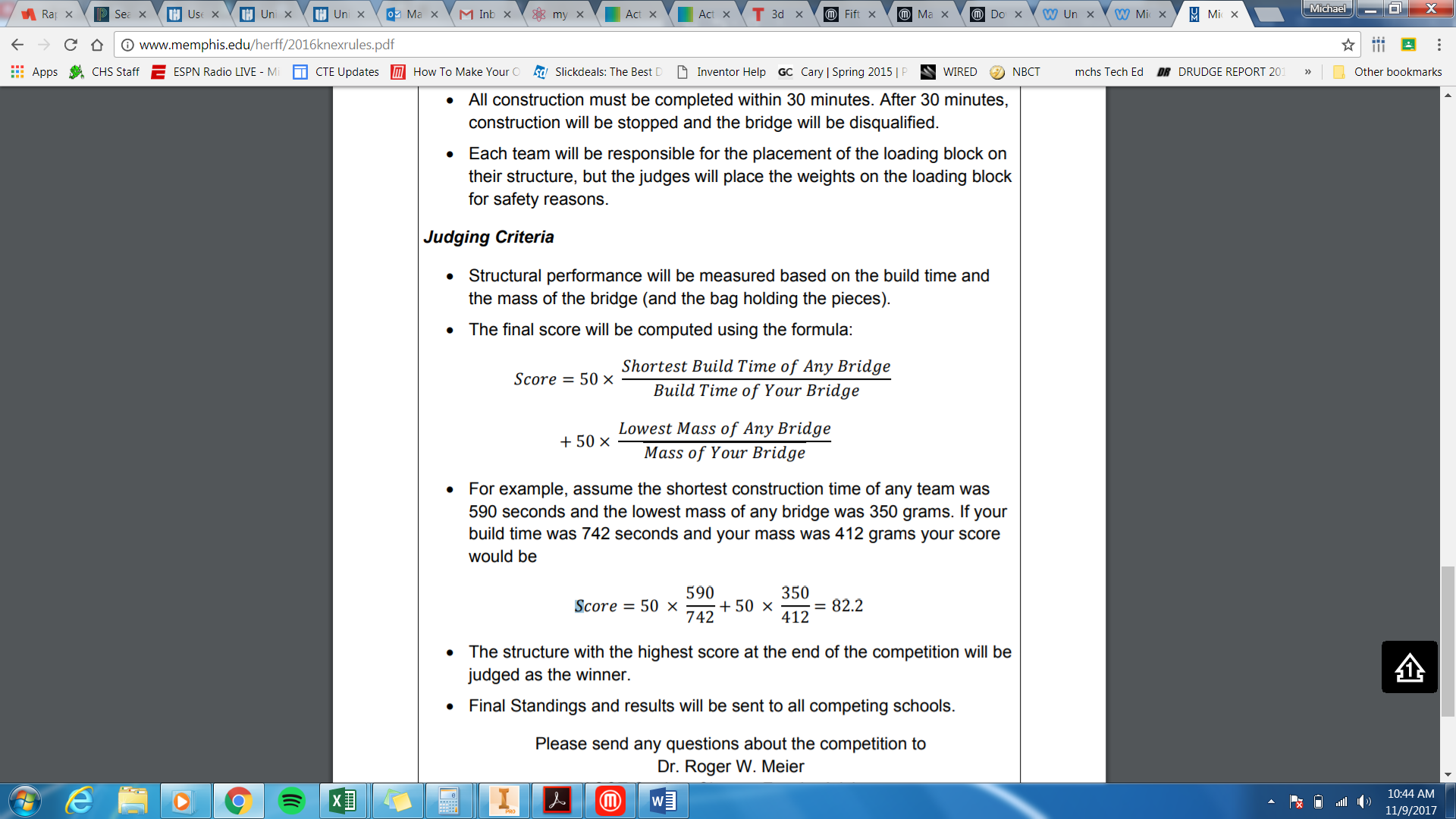


All construction must be completed within 30 minutes. After 30 minutes, construction will be stopped and the bridge will be disqualified.

**Judging Criteria**

• Structural performance will be measured based on the build time and the mass of the bridge (and the bag holding the pieces).

• The final score will be computed using the formula:



• For example, assume the shortest construction time of any team was 590 seconds and the lowest mass of any bridge was 350 grams. If your build time was 742 seconds and your mass was 412 grams your score would be 82.2

• The structure with the highest score at the end of the competition will be judged as the winner.