



# Trebuchet Challenge

## Rules of Play

The Trebuchet Challenge is a competition to encourage families to work together, tinker and build a working trebuchet. A competition will take place on **Saturday, August 2, 2014 at 3 pm** at Burke Field. In case of very heavy rain or thunderstorm, competition will be postponed until Sunday, August 3 at 3 pm.

Participation in this event is voluntary (“at your own risk”) and participants must recognize that working with trebuchets and counterweights up to 25 pounds can produce quite a force and fast moving parts which can lead to personal injury. All participants must recognize that there is an element of danger in building a working trebuchets and must exercise caution when doing so.

### Guidelines for Construction

See attached “Building Trebuchets” handout for construction information. Also, the Madison Library has the book “The Art of the Catapult” by William Gurstelle for reference.

1. All trebuchets must be of “traditional” design and derive all energy from a falling counterweight only.
2. Height from ground to center of fulcrum (pivot point of throwing arm) must be no more than 5 feet.
3. Construction materials:
  - a. Frame and throwing arm of trebuchet are to be constructed of wood. Plywood is okay for secondary support pieces.
  - b. Metal or other material is allowed for the fulcrum (axle), counter weight, and assembly hardware.
4. Counterweight must be no more than 25 pounds and readily removable for verification at contest.
5. All trebuchets must have a release pin or mechanism (trigger) for safety.
6. All trebuchets must be portable and set on the ground or wheels for the competition.

# Competition Rules

1. Teams must have at least one adult member. Parents should sit on their hands and encourage and guide youth to do as much work as is safely possible.
2. Please arrive at 2:45 pm to sign in and set up your trebuchet.
3. Judges will review your trebuchet to make sure it meets the construction guidelines (see above). Trebuchets that do not meet guidelines will be disqualified from competition.
4. Distance competition will be held for prizes. (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Place)
  - a. Each team will have 10 attempts to register 5 successful forward throws of a standard baseball. Judges will measure distance.
  - b. The best of 5 throws will count for scoring.
  - c. Any throw where the baseball is launched forward will be considered successful. Misthrows or backward throws will count as an attempt.
5. An accuracy exhibition will be held for fun and will consist of launches of water balloons at a target.
6. “Most beautiful” trebuchet will be chosen by judges for a prize.
7. At the end of the event, participants are welcome to launch excess garden produce (with safety of participants and spectators in mind) for a fun demonstration. Please ask judges or challenge coordinators before launching.

