Mark Twain Elementary School "Interplanetary Lander" Egg Drop Contest



Saturday June 12th at 10:00am



End the school year with a bang or a splat by making a contraption or two and bring it to the egg drop contest!

Demonstrate an understanding of the engineering challenges that rocket scientists face by designing and building a landing craft (at home) so your test pilot (an egg) survives the descent (a drop from the top of the fire department ladder truck) on another planet (the pavement of the school parking lot). Mark your calendars because it is going to be "eggstremely" "egg-citing"!



No entry forms to submit just bring your contraption(s) or just come for the "oohs", "ahs" and "yucks"!

Brought to you by...

The Kirkland Fire Dept & Twain PTSA but we need a few parent-child teams to volunteer to open contraptions to see if egg is a "survivor" or "cracked". A fantastic way to be involved and make an extra special memory! Please contact Michael Fox at 425-497-8400 or by email at mb.fox@verizon.net.



D= distance traveled vertically

the lander...

In the past, NASA used retro-rockets to slow down a spacecraft but since that adds significant size, weight and seriously disturbs the things scientists wish to study a better way is needed! In this activity students will be challenged to come up with small, lightweight alternatives that don't use retro-rockets for safely landing a fragile payload on another planet. The Mars Pathfinder mission craft was protected in airbags to bounce on the Martian surface. The Apollo moon missions used parachutes to slow the craft down before splashdown in the ocean to protect the astronauts. Those are both great real life examples!

for more ideas try these links...

*check with your parents before going on the internet. Past years egg drop contest: www.kodakgallery.com/mfox/marktwain By Zachary: http://www.youtube.com/watch?v=yxkoqEKILGQ NASA: http://www.youtube.com/watch?v=yxkoqEKILGQ NASA: http://www.nasa.gov/mission_pages/constellation/multimedia/index.html Mars Mission: http://www.nasa.gov/multimedia/videogallery/Video_Gallery_Archives.html "Leonardo da Vinci" style: http://www.youtube.com/watch?v=h7N5drzgluo Presented by Mario the Dragon: http://www.youtube.com/watch?v=_yK5-EtqHOo By Benny the kid: http://www.youtube.com/watch?v=os9dLwxKS21

five categories...

- 1. "The Good Egg": closest to center of target.
- 2. "The Humpty Dumpty": funniest design.
- 3. "Most Egg-scellent": most creative and best decorated.
- 4. "Most Egg-ological": most imaginative and elaborate.
- 5. "Most Egg-sploded": best device-break up upon impact.

rules summary...

- 1. This event is at school so all school rules apply.
- 2. Write your name and grade in large print on the contraption.
- 3. Don't bring your contraption to school before the event.
- 4. Nothing sharp or to fly off to hurt someone upon impact.
- 5. No propellants, airplanes, helium in balloons, or lowering on string.
- 6. A standard uncooked egg must be used, not hardboiled or frozen!
- 7. No entry forms to submit.





G-force, inertia, acceleration

