



## 2019 EGG DROP CHALLENGE

Sponsored by the Turtle Rock PTA

*Let the creating, designing and building fun begin.....*

*Friday, March 29, 2019*

Upper Grade Sports Courts

Grades 4-6 from 10:15 to 10:35am

Grades K-3 from 10:35 to 11:05am

Learn about energy, motion and the real consequences of design engineering- then watch to see whether each falling egg will survive intact or go splat! Get creative with your design and have fun!

**The Challenge:** To build an egg container/lander that will protect a raw, uncooked egg as it is launched from a high ladder by the Irvine Firefighters! Get creative with your design and have fun!

### **How the Egg Drop challenge works:**

1. THE PTA WILL PROVIDE THE EGGS!! Do not bring an egg (of any type) to school.
2. All landers must be made at home prior to the event.
3. Bring your unsealed, **eggless** landing device to the Upper Grade Sports Courts on Friday, *March 29th*, between 7:30 and 7:50 am. Landers will be prepped for launch with a raw egg, provided by the PTA.
4. You MUST SIGN IN at lander drop-off time to receive Academic Challenge Credit (No Exceptions) The Egg Drop is the only Science Challenge for Academic Challenge credit this year.
5. You will receive an “Eggcellent” sticker at drop-off time for your efforts, wear it proudly all day!
6. The Irvine Fire Department will begin dropping landers at 10:15 am (pending any departure due to emergency fire response calls.)

### New Rules This Year

Your lander must hold a large AA egg.

Weight and Size and Design Restrictions: 2 lbs, 10 inches maximum package in all directions

- Your lander must be in free fall during the drop. No bungee cords, tethers or parachutes.
- No cardboard boxes or Amazon boxes. No packing peanuts, bubble wrap, air bags or any other store-bought packaging material or foam.

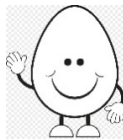
- No metals, glass, chemical containers, Styrofoam (with the exception of whole Styrofoam cups,) and no thick wood (such as 2x4.)
- No Popsicle sticks of any size.
- No gases other than air may be used. (No Helium Balloons.)
- No splatterables such as peanut butter, jell-o, liquids, fruit or vegetables (popcorn is OK.)
- No flammable substances.
- Your lander must have an easily accessible location for the judge to place the egg.
- You may submit egg loading instructions on a small card attached to lander if needed.
- Landers should be made by the student with *minimal* assistance! Test your *own* ideas!!
- **All landers (and all parts making up a lander) will be discarded after the drop!** Assume you will permanently part with your lander at drop-off, so take lots of pictures at home.
- Failure to follow design guidelines or the list of approved materials will result in disqualification.
- It is up to the judges' discretion as to whether the guidelines were followed.

### Judging

A damaged egg is defined as one with a visible crack or worse. Hairline cracks are not considered damaged eggs.

### Surviving Landers

If everything works perfectly (no rain, splatter, broken pieces, etc.) we hope to show off the working landers (that are built following the rules) on the outdoor stage during recess (keep in mind that all landers will be discarded after display.)



*Let the creating, designing and building fun begin.....*

For any questions on Egg drop Challenge contact Kaai Kim at [speedybunny27@gmail.com](mailto:speedybunny27@gmail.com)

For questions on Academic Challenge contact Jeannie deFlaviis at [AcademicChallenge@pta.rocks](mailto:AcademicChallenge@pta.rocks)

We will need parent volunteers to help load the landers in the morning on March 29 @ 8 am. Please come and help if you are available.