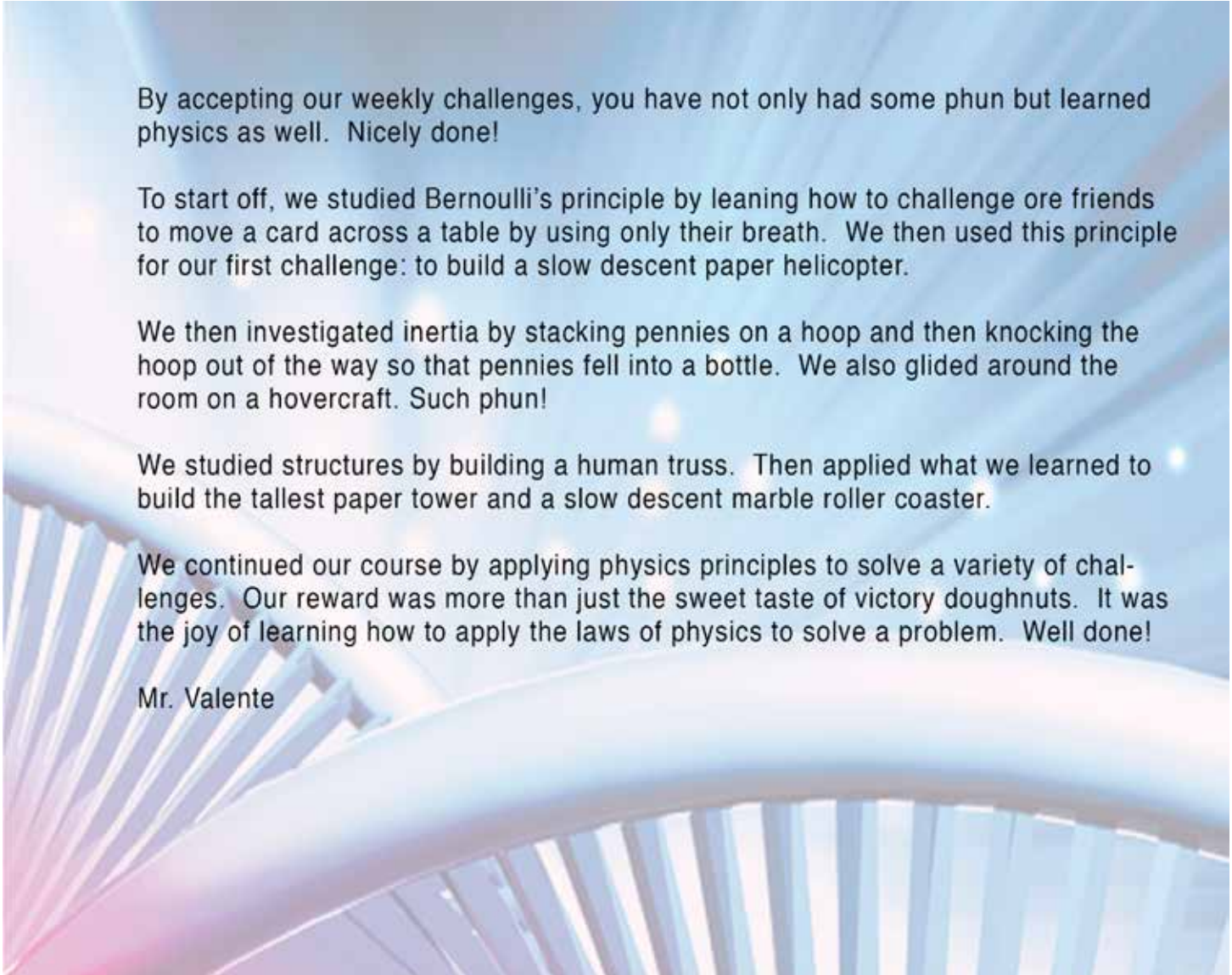




the stars
challenge

Olympics of the Mind
Fall 2016





By accepting our weekly challenges, you have not only had some fun but learned physics as well. Nicely done!

To start off, we studied Bernoulli's principle by learning how to challenge our friends to move a card across a table by using only their breath. We then used this principle for our first challenge: to build a slow descent paper helicopter.

We then investigated inertia by stacking pennies on a hoop and then knocking the hoop out of the way so that pennies fell into a bottle. We also glided around the room on a hovercraft. Such fun!

We studied structures by building a human truss. Then applied what we learned to build the tallest paper tower and a slow descent marble roller coaster.

We continued our course by applying physics principles to solve a variety of challenges. Our reward was more than just the sweet taste of victory doughnuts. It was the joy of learning how to apply the laws of physics to solve a problem. Well done!

Mr. Valente



The class makes and tests their slow descent helicopters.



The Star's Challenge Olympics of the Mind class shows off their rotational inertia device.



The students guide a ping pong ball through hoops demonstrating Bernoulli's Principle.





We investigated inertia by guiding a bowling ball through a course.



Gliding around the classroom on a human hovercraft. Such phun!



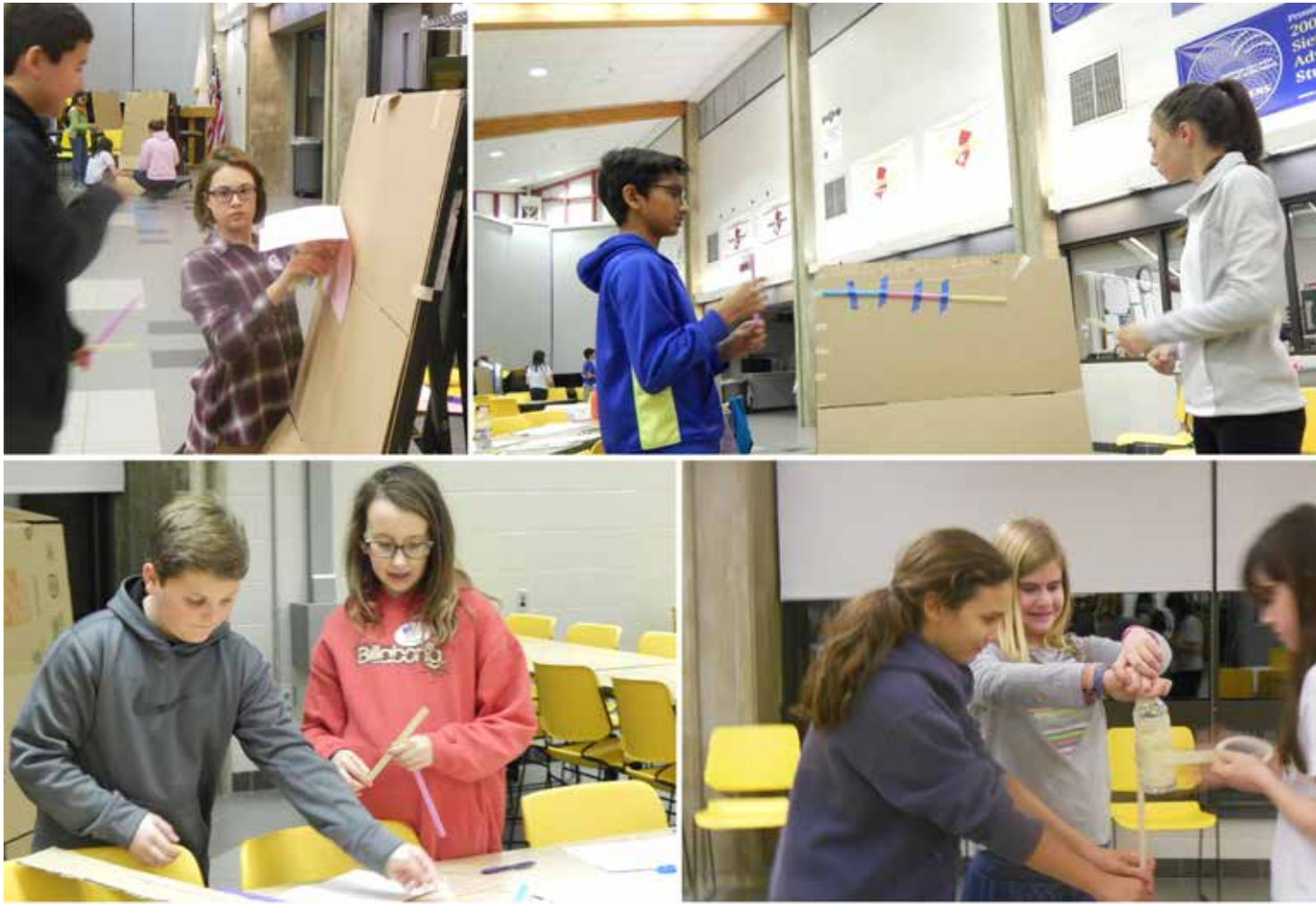
Trying to get the most pennies to drop into a bottle using the principle of inertia.



Can anyone shoot the Moon using the principle of rotational inertia?



Studying rotational inertia the class tries to balance a bottle while always in forward motion.



The class applies potential energy to build a slow descent marble rollercoaster.



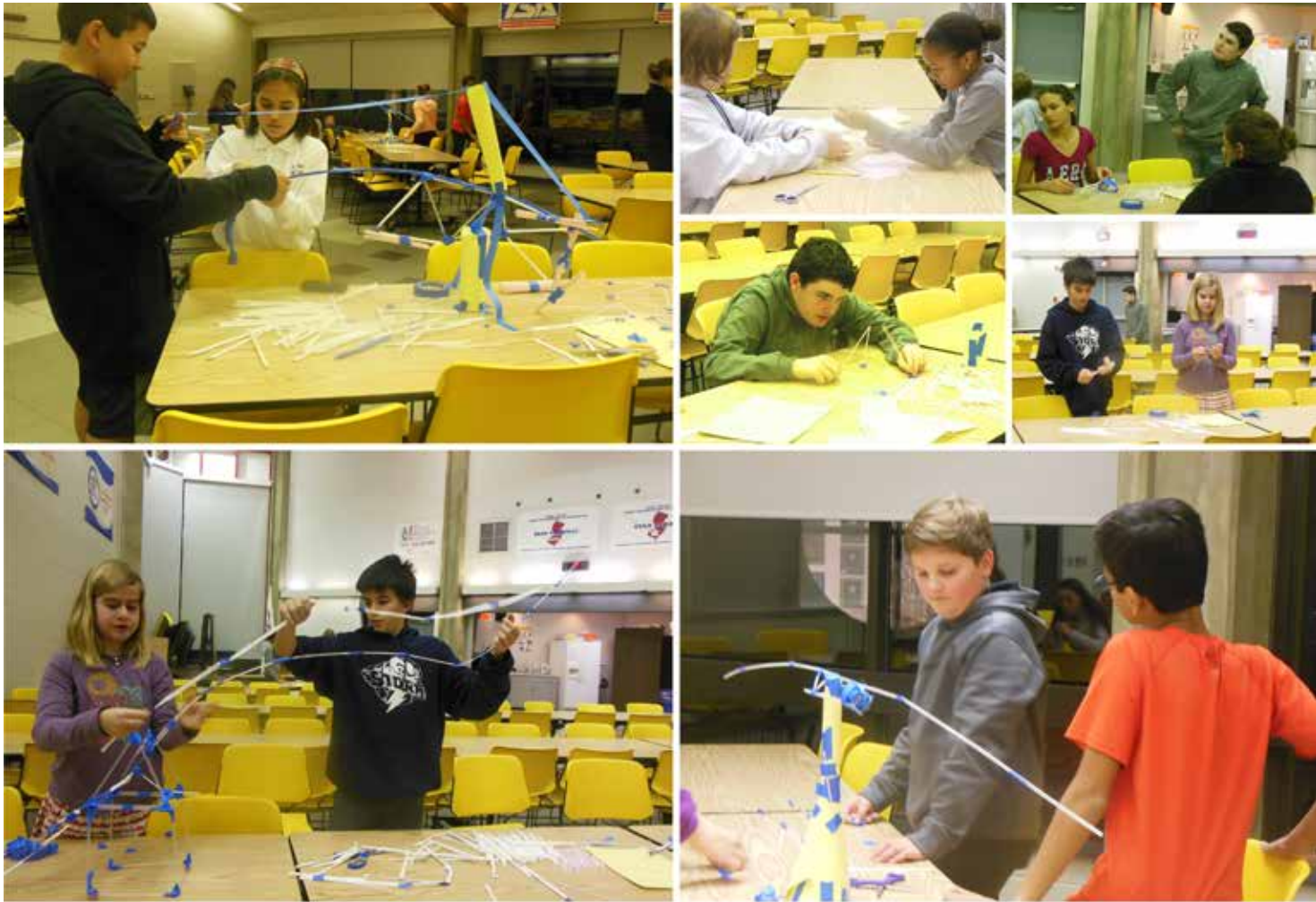
Who can build the tallest paper tower?



The students test the strength of beams and tubes. Which is stronger?



The class feels the Torque.



Using the principle of torque and trusses, the class designs and builds the longest cantilever arm.



What angle is best to launch a marshmallow to hit the target? The students know!





