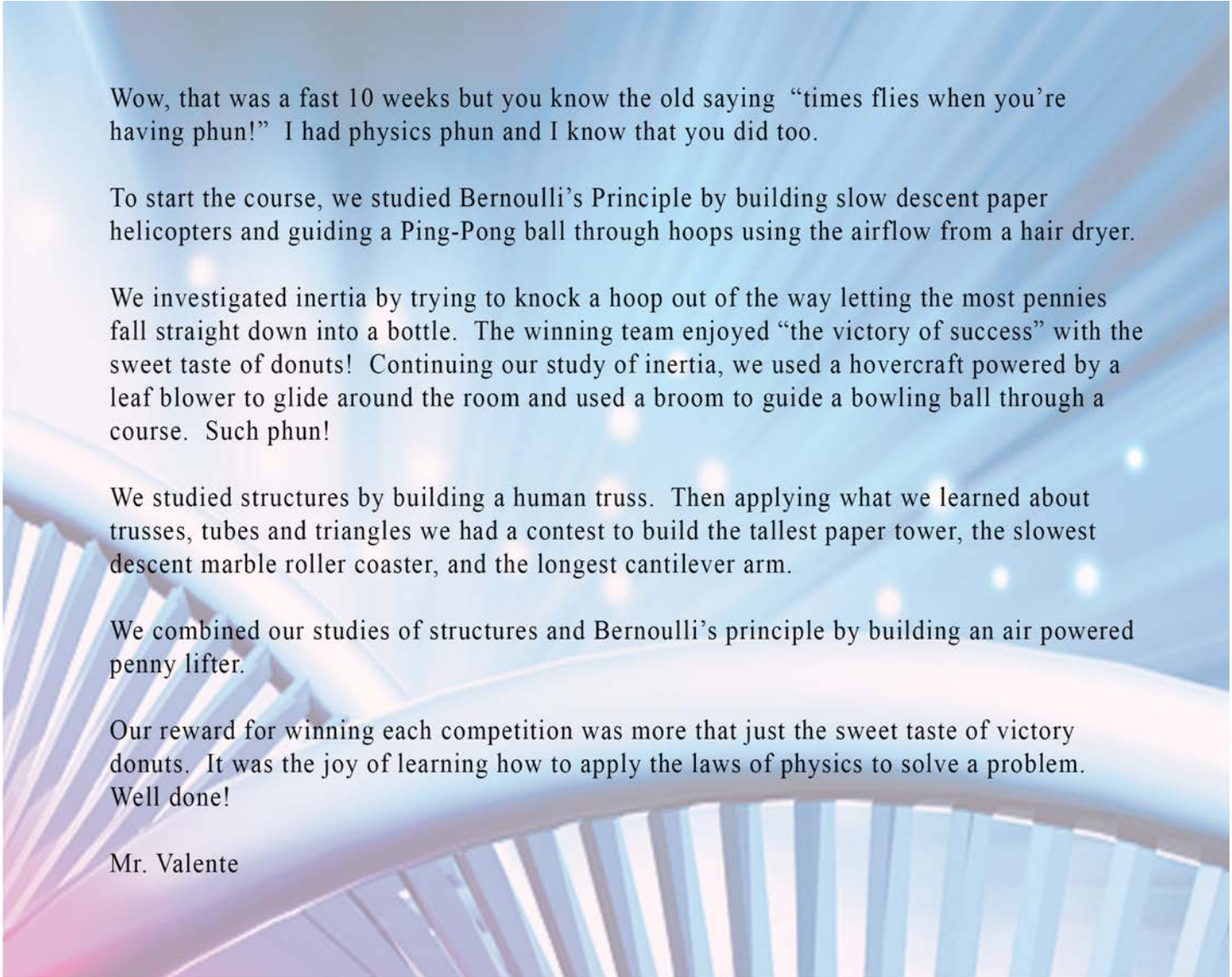




the stars
challenge

Olympics of the Mind
Fall 2014





Wow, that was a fast 10 weeks but you know the old saying “time flies when you’re having fun!” I had physics fun and I know that you did too.

To start the course, we studied Bernoulli’s Principle by building slow descent paper helicopters and guiding a Ping-Pong ball through hoops using the airflow from a hair dryer.

We investigated inertia by trying to knock a hoop out of the way letting the most pennies fall straight down into a bottle. The winning team enjoyed “the victory of success” with the sweet taste of donuts! Continuing our study of inertia, we used a hovercraft powered by a leaf blower to glide around the room and used a broom to guide a bowling ball through a course. Such fun!

We studied structures by building a human truss. Then applying what we learned about trusses, tubes and triangles we had a contest to build the tallest paper tower, the slowest descent marble roller coaster, and the longest cantilever arm.

We combined our studies of structures and Bernoulli’s principle by building an air powered penny lifter.

Our reward for winning each competition was more than just the sweet taste of victory donuts. It was the joy of learning how to apply the laws of physics to solve a problem. Well done!

Mr. Valente



The class shows off their understanding of inertia by determining if the dowel or the block moves when the mallet strikes the dowel.



We investigated Bernoulli's Principle by designing a slow descent helicopter.



Continuing with Bernoulli's Principle, the class guided a Ping-Pong ball through hoops using the airflow from a hairdryer.





Investigating inertia, the class tries to get the most pennies balanced on a hoop to fall into a bottle.



The students take a ride on a “human hockey puck”!

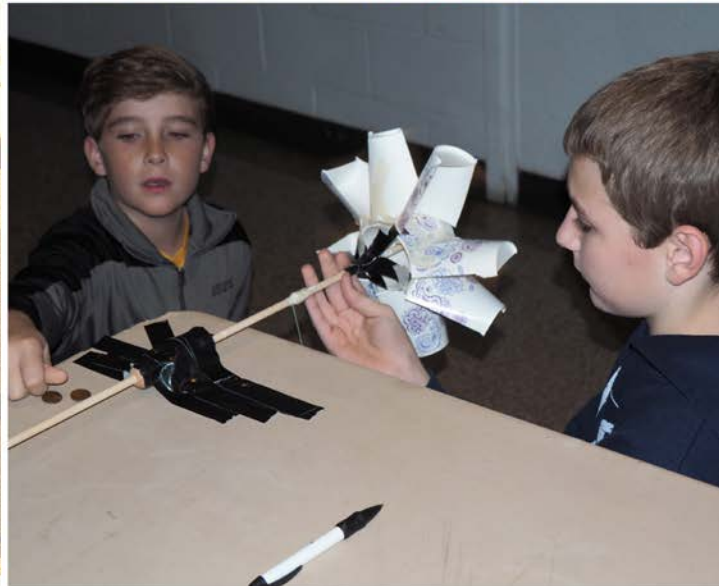


The class continues their study of inertia by guiding a bowling ball along a course in the fastest time.





The students combine their understanding of Bernoulli's principle and structures by designing a wind power lifter to lift the greatest amount of pennies.





In this investigation, the class designs the longest cantilever structure constructed from tape and straws.





Continuing with structural design, the students design the tallest paper tower.





The students investigate the angle of greatest range at which to launch a marshmallow.





The class designs a slow descent marble roller coaster from foam tubes but first they predict which track will win the race. Which one do you pick?







Olympics of the Mind Fall 2014