

Ares wins Quinte Regional Science and Technology Fair



By Kristena Schutt-Moore

On Sunday, April 11 Ares Worsley was announced as the winner of the Quinte Regional Science and Technology Fair. Ares started two months ago by competing in the Birds Creek Public School's annual science fair. It was his first time competing and he was looking at studying how things fly. With some help from his teacher, Chris Spencer, Ares decided on doing a project about how things fall.

He used three different sized balloons and dropped them from the top of a door frame. He repeated this three times with each balloon size and measured how fast they fell by counting the individual frames of the videos he recorded of each fall.

Before doing his study, Ares' hypothesis was that the largest balloon would take longer to hit the ground. Turns out that he was correct. According to the data he collected it took the 14 inch balloon an average of 25 frames to hit the ground, the 17 inch balloon took an average of 29 frames to hit the ground while the 25 inch balloon took an average of 37.3 frames to hit the ground. Through his research Ares discovered that the reason it took longer for the larger balloons to hit the ground was due to the bigger balloons having bigger surfaces which let the air slow them down.

?To help understand, I got two pieces of paper, crumpled one and dropped them from the same height at the same time. The thinner paper falls in a left, right zig-zag pattern because the smooth paper catches on the area and the crumpled paper falls faster,? Ares explained. ?The smooth paper is bigger, like the big balloon it has a bigger bottom surface so it can reach more air beneath it to slow itself down.?

Seeing these results, he became inspired by the SpaceX Belly Flop Rocket which was launched on Dec. 9 2020. The rocket was designed to land on its side, like a belly flop, so that it had more air surface to slow itself down. Unfortunately, the rocket exploded on impact which was said to be caused by low fuel tank pressure. But the idea of a rocket that would use similar physics to his science fair project inspired him.

Ares then took two long balloons and tested the theory of air over a larger surface slowing an object's fall. He did this by dropping in vertical and one horizontal, both at the same time. The results supported his theory as the vertical balloon went down faster while the horizontal one caught enough air to slow it down.

Once the school fair was over, he learned that he could continue, and participate in the Quinte Regional Science and Technology Fair. To do this he had to reorganize his presentation. He was then asked to participate in three video interviews on Saturday, April 14 with three different fair judges.

When asked what inspired him to participate in the Quinte Regional Science and Technology Fair, Ares said, "The school was letting us try for the regional science fair so I just decided I've completed a school one and I feel like I have enough 'science-y' stuff left in me for quite a while. I just decided that I have come this far and if I did it next year maybe I would have to do it on a different subject. I kinda just felt like I wanted to go further because I might not have the chance or an easier, better shot at it next year. I always wanted to be a scientist and this felt like my chance to realize my dream."

The Quinte Regional Science and Technology Fair award show was on Sunday, April 11 on YouTube. Shortly after his interviews Ares received an email inviting him to attend.

In total, Ares was awarded first place for Grade 4 Math and Physics Category, first place for the Astronomy Category and first place for Grade 4 Over All. With each of the awards Ares will receive a medal and part of his astronomy award includes a two-year subscription to astronomy magazines.

"I sort of felt excited when they announced I won, but at the same time I just want to do something else. The award ceremony was an hour long. There was a lot of waiting, with a countdown, then another countdown, then another countdown, then another drum roll countdown," says Ares.

Next year Ares is thinking about joining both the Bird's Creek Public School science fair and the Quinte Regional Science and Technology Fair, and possibly change things up and study something to do with trees though he hasn't fully decided yet.