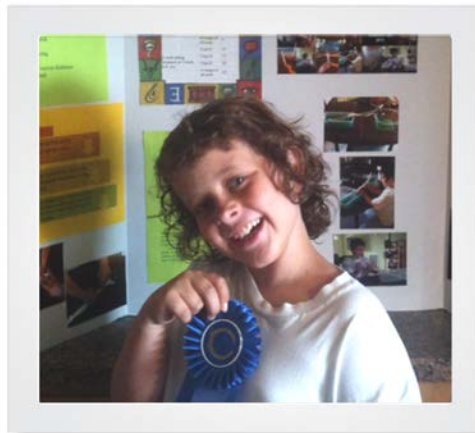


**Student**

Keeley L. Hilliard
Satellite Beach, FL

Summary

What's the right science project for a 3rd grade *Avatar* fan? Science Buddies' Topic Selection Wizard knows the answer—building an Archimedes screw pump! Now this budding scientist can move water with a twist of the wrist, just like his favorite Waterbender heroes on TV!

**The Science of Waterbending**

When Keeley Hilliard answered the questions on the Science Buddies [Topic Selection Wizard](#), the Wizard matched him up with a "just-right" project for his 3rd grade science fair. Based on Keeley's interests, the Wizard suggested the [It's All in the Wrist: Moving Water with the Archimedes Screw Pump](#) mechanical engineering project.

Keeley was "a fan of the idea from the start," says his mother. Keeley loves the TV show *Avatar*, in which characters called Waterbenders manipulate and move water with their hands using Tai Chi-based motions. To Keeley, the Archimedes screw sounded like something straight from TV! With its connection to the mystical world of waterbending, the project sparked Keeley's curiosity and got him excited about his first science fair.

"My mom helped me learn about Archimedes, an old guy who came up with a cool method of moving water," explains Keeley. As part of the hands-on project, Keeley and his dad built their own working screw pump using common materials, including PVC pipes and surgical tubing. Keeley had fun constructing and testing the water pump and learning how easy it is to move water from a low-lying plane to a higher plane. As Keeley discovered, there is more engineering than magic in Archimedes' screw pump, and the seemingly simple design is still in use today in places like water parks and water treatment plants.

According to Keeley, the hardest part of the project was making his presentation at the science fair. Despite being nervous, he garnered 1st place in the 3rd grade physical science category and the opportunity to compete at the district-level fair. "I did not win at Districts, but at least I got to go and miss school for the day. I even got to go to lunch with my teacher," enthuses Keeley.

Thanks to the Topic Selection Wizard, this energetic *Avatar* fan found the perfect first science fair project. When it's time for his 4th grade project, Keeley hopes to find another just-right project in the Science Buddies library of [Project Ideas](#). Perhaps this year the Wizard will recommend a project related to another of Keeley's favorite topics: video and computer games!