

Innovative: Trout Lake students capture wind energy; teacher brainstorms to raise school funds

By Lori K. Froehlich

Troust Lake is a unique rural community in the foothills of Mount Adams. Historically, the base of the community has been dairy farming and logging, but as in most rural areas, this base is changing.

What hasn't changed is the community's strong support for its K-12 public school.

Last year, Klickitat PUD and Klickitat County citizens donated used cell phones to the science program at Trout Lake School District No. 400.

John Elyard, a science teacher at Trout Lake, collects the cell phones for a fundraiser, deleting any information on them and turning them into a company that pays cash for the phones to nonprofit organizations.

"It is a continual fight as a teacher to balance the purchase of new equipment in your curriculum, especially in the ever-changing field of science," John says.

With KPUD's support, last year's fundraiser brought \$177.

John takes a special interest in his students being able to get a hands-on application of science. He co-teaches his fourth period applied science class with Arthur Morken, who doubles as a shop teacher.

The students' enthusiasm for science is evident at first glance. Their faces light up when they describe their past and favorite class projects, which ranged from trebuchets (catapults) to rockets and hovercrafts.



Above, Trout Lake science teacher Arthur Morken discusses wind turbine technology with Dakota Hysmith. Below, Alyssa Pearce and Kristen Clark show their wind turbines in progress.



John and Arthur also cover topics of simple machines, energy conversion, magnetism, motors and generators, which led to their current project: wind energy.

Each student researched wind turbine designs and built their own.

Ramiro Avila designed his by modeling a traditional windmill.

"The higher it is the better," Ramiro says. "That way, it would catch more wind."

The goal is to see how many LED lights one of the project wind turbines can power, and whose design can power the most lights.

Lindsey Scott found pictures on the Internet and chose a vertical, swirling design for the blades because "wind can come from all directions."

As a school district, Trout Lake tries to implement programs, trips, curriculum and challenges above and beyond what normally is done in school districts throughout the state.

The funds received from John's fundraisers, and numerous grants, go into a general science grant fund and are used to purchase equipment, as well as expendables, such as batteries and motors.

To continue projects like these, everyone can help by donating an old cell phone. Drop boxes are available at both PUD offices and Riverview Bank in Goldendale and White Salmon. Trout Lake students appreciate your continued support. ■