Kaitlyn Clark and Caitlin Brown doing water quality work on Barnes Creek to compare to Elwha. Courtesy photo. Timbercrest Junior High teacher Amy Leslie is piloting a new class in environmental technology for Northshore.

Its focus is on sustainable design, an area of study that schools are increasingly adding to their curriculums due to its relevance, both present and future, to society.

The district already has a course in the subject matter at the high school level, but this is the first time it is being offered to junior high students and currently only at Timbercrest.

“It’s an interesting evolution as to how it all came about,” says Leslie. “Basically, the idea for the class came from a compilation of lots of factors and people.”

She explains: “I used to teach ninth grade and whenever I touched on the subject of sustainability and renewable energy, the kids got really excited.

“Meanwhile, the administration was looking at adding more science, which was also a request from families. And the district was interested in introducing more CTE or Career Technical Education courses for ninth graders. It all just came together.”

The course, according to Leslie, explores the concept of sustainable design through six units of study: Principles of Sustainability and Human Impacts (climate change facts and solutions, ecological footprints); Our Water (managing quality and quantity, local and global water issues); Our Vehicles (sustainable transportation technology and systems, mass transit, alternative fuels, human power); Our Homes (building materials and design, green building rating systems, energy conservation and efficiency, sustainable ways to get electricity); Our Stuff (manufacturing practices, electronics, food, cradle to cradle design); and Taking Action (stewardship). An overriding goal of the course is for students to learn how to measure and reduce the impacts of their lifestyle choices on the health of our planet and society.

“The state has standards for this class,” notes Leslie, “and I have designed the curriculum to meet these standards. Students get occupational education credit for the class and included in the curriculum is an exploration of ‘green’ jobs and career paths. They also will get the tools and skills they need to prepare them for AP Environmental Science and the Sustainable Engineering and Design class in high school.” She adds, “And preparation for a future that may look very different than the one we have now.”

Leslie has 18 kids in the class, but with increased awareness, she expects enrollment to rise next time the course is offered.

She comments that the students are highly engaged in the material and very interested in the field.

“This class makes me feel more connected with the environment in our community and around the world,” says student Mike Frizalone. “It challenges me to think of ways that we can help reduce our effect on the environment.”

Another student, Nick Minkin, adds, “It’s a great class that gets us started on thinking about bringing the world to smart energy, and a new global standard.”

To prepare for the course, Leslie spent much time reading, studying and collaborating with the teacher responsible for the Sustainable Engineering and Design class at Woodinville High School.

She received a $10,000 STEM grant for materials, which has been invaluable.

“There are lots of resources available,” she remarks, “and we’re using a variety of different ones.” She adds, “It’s a hands-on class and the kids get to do lots of activities with experiment kits. I’m also having guest speakers come and talk about their areas of expertise. And then we’re going on several field trips, too.”

Some of the excursions planned include visits to Cascade Recycling Center, Cottage Lake, Brightwater Treatment Plant, Leota Junior High’s composting program and possibly the Harvest House, one of the greenest homes being built in the area.

Recently, the class spent three and a half days on the Olympic Peninsula studying the changes that are occurring on the river with the removal of the Elwha Dam.

For Leslie, the course is very stimulating to teach and she enjoys watching the students develop a passion for the field or build upon an existing one.

She says, “They bring lots of ideas, creativity and interest to the table, which is fun. And seeing our future sitting in my class is really exciting.”

As a result of her avid interest and work in this field, Leslie was recently selected to participate in the Japan-U.S. Teacher Exchange Program for Education for Sustainable Development (ESD).

Fulbright Japan administers the program and it is jointly funded by the Educational and Cultural Affairs Bureau of the U.S. Department of State and the Japanese Government's Ministry of Education, Culture, Sports, Science and Technology.

The program is designed to raise awareness of ESD-oriented classes, enhance ESD-related curricula in both countries and deepen a sense of global interconnectedness between teachers in Japan and the U.S. in four areas: food and sustainable nutrition, environment, energy and resources and international understanding and cooperation.

Twenty-four teachers from Japan will travel to the U.S. in late April and the same number will go to Japan in late June.

During their in-country time, participants will attend an orientation to the country's culture and education, attend workshops and presentations with experts in ESD and visit ESD-focused schools, cultural locales and other ESD resources sites. At the end of the program in each country, all of the teachers will gather for a few days of joint collaboration. Leslie is very honored to have been chosen to be involved in the program.

She says, "As one of the few teachers in the country selected to participate in the Japan-U.S. Exchange Program for Education for Sustainable Development, I'll be better equipped to teach interconnectedness, the main theme for this class."